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REPORT

Volume X

Evidence and Documents

CLASSIFIED REPLIES TO THE COMMISSIONERS' QUESTIONS 8—12

8. Conditions of admission to the University.
9. Use and abuse of examinations.
10. Improvements in university examinations.
11. Medium of instruction.
12. Scientific study of the vernaculars.



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Calcutta University Commission

WRITTEN ANSWERS

TO

Question 8. Conditions of admission to the University.
Question 9. Use and abuse of examinations.
Question 10. Improvements in university examinations.
Question 11. Medium of instruction.
Question 12. Scientific study of the vernaculars.

Name and designation of correspondent.	*Question answered.*	*Page.*
Allen, H. J., M.A., Bar.-at-Law, Principal and Professor of History, Presidency College, Madras.	11	298
Allen, Dr. H. N., B.Sc., Ph.D., Principal, College of Engineering, Poona.	9	111
	11	299
Alum, Sahebzadah Mahomed Sultan, B.A., Member of the Mysore Family, and Attorney-at-Law, High Court, Calcutta.	8	8
	9	111
	10	232
	11	299
Annandale, Dr. N., B.A., D.Sc., F.L.S., F.A.S.B., C.M.Z.S., Director, Zoological Survey of India, Calcutta.	8	8
	9	111
	11	299
Archbold, W. A. J., M.A., LL.B., Principal, Muir Central College, Allahabad (late Principal, Dacca College, Dacca).	8	8
	9	112
	11	300
	12	508
Association of University Women in India, Calcutta Branch, Calcutta	9	112
	11	300
	12	509
Aziz, Maulvi Abdul, Lecturer in Arabic and Persian, Dacca College, Dacca.	9	113
	10	233
	11	301
	12	509
Bagchi, Dr. Haridas, M.A., Ph.D., Lecturer in Pure Mathematics, Calcutta University, Calcutta.	11	302
Banerjea, J. R., M.A., B.L., Vice-Principal, Vidyasagar College, and Fellow, Calcutta University, Calcutta.	8	8
	9	113
	10	233
	11	303
	12	509
Banerjea, Dr. Pramathanath, M.A., D.Sc., Bar.-at-Law, Lecturer in Economics and Political Science, Calcutta University, Calcutta.	8	9
	9	114
	10	233
	11	304
	12	509
Banerjea, Surendra Nath, M.A., Professor of Chemistry, Ripon College, Calcutta.	9	114
	11	304
Banerjee, Gauranganath, M.A., F.R.A.S., M.R.A.S., Premchand Roychand Scholar, Lecturer in History, Calcutta University, Calcutta.	9	115
	11	304
	12	509
Banerjee, Sir Gooroo Dass, Kt., M.A., D.L., Ph.D. Fellow, Calcutta University, Calcutta.	8	9
	9	115
	10	233
	11	305
	12	509

Name and designation of correspondent.	*Question answered.*	*Page*
Banerjee, Jaygopal, M.A., Lecturer in English, Calcutta University, Calcutta.	8	10
	9	116
	10	234
	11	306
	12	509
Banerjee, Rai Kumudini Kanta, Bahadur, M.A., Principal, Rajshahi College, and Fellow, Calcutta University, Rajshahi.	8	11
	9	116
	10	234
	11	307
	12	510
Banerjee, M. N., B.A., M.R.C.S., Principal, Belgachia Medical College, and Fellow, Calcutta University, Calcutta.	8	11
	9	117
	10	234
	11	307
Banerjee, Muraly Dhar, M.A., Professor of Sanskrit, Sanskrit College, and Lecturer in Sanskrit, Calcutta University, Calcutta.	8	11
	9	117
	10	234
	11	308
	12	510
Banerjee, Ravaneswar, B.A., B.T., Head Master, Hooghly Branch School, Chinsura.	8	11
	9	117
	10	235
	11	308
	12	510
Banerjee, Sasi Sekhar, B.A., Offg. Principal, Krishnath College, Berhampur.	8	12
	9	118
	10	235
	11	309
	12	511
Banerjee, Sudhansukumar, M.Sc., Lecturer in Applied Mathematics, Calcutta University, Dhakuria.	8	12
	9	118
	11	311
	12	511
Banerjee, Upendra Nath, Member, British Indian Association, Calcutta.	8	13
	10	235
Banerji, Manmathanath, M.Sc., Lecturer in Experimental Psychology, University College of Science, Calcutta.	8	13
	9	119
	10	236
	11	311
Banerji, The Hon'ble Justice Sir Pramada Charan, Kt., B.A., B.L., Puisne Judge, High Court, and Vice-Chancellor, University of Allahabad.	8	13
	9	120
	11	312
	12	511
Banerji, Surendra Chandra, M.A., B.Sc., Professor of Botany, Presidency College, and Lecturer in Botany, Calcutta University, Calcutta.	9	120
	10	236
	11	313

Name and designation of correspondent.	*Question answered.*	*Page.*
Allen, H. J., M.A., Bar.-at-Law, Principal and Professor of History, Presidency College, Madras.	11	298
Allen, Dr. H. N., B.Sc., Ph.D., Principal, College of Engineering, Poona.	9	111
	11	299
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	9	111
	10	232
	11	299
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	9	111
	11	299
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	9	112
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	12	509
Aziz, Maulvi Abdul, Lecturer in Arabic and Persian, Dacca College, Dacca.	9	113
	10	233
	11	301
	12	509
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Banerjea, J. R., M.A., B.L., Vice-Principal, Vidyasagar College, and Fellow, Calcutta University, Calcutta.	8	8
	9	113
	10	233
	11	303
	12	509
Banerjea, Dr. Pramathanath, M.A., D.Sc., Bar.-at-Law, Lecturer in Economics and Political Science, Calcutta University, Calcutta.	8	9
	9	114
	10	233
	11	304
	12	509
Banerjea, Surendra Nath, M.A., Professor of Chemistry, Ripon College, Calcutta.	9	114
	11	304
Banerjee, Gauranganath, M.A., F.R.A.S., M.R.A.S., Premchand Roychand Scholar, Lecturer in History, Calcutta University, Calcutta.	9	115
	11	304
	12	509
Banerjee, Sir Gooroo Dass, Kt., M.A., D.L., Ph.D. Fellow, Calcutta University, Calcutta.	8	9
	9	115
	10	233
	11	305
	12	509

Name and designation of correspondent.	*Question answered.*	*Page*
Banerjee, Jaygopal, M.A., Lecturer in English, Calcutta University, Calcutta.	8	10
	9	116
	10	234
	11	306
	12	509
Banerjee, Rai Kumudini Kanta, Bahadur, M.A., Principal, Rajshahi College, and Fellow, Calcutta University, Rajshahi.	8	11
	9	116
	10	234
	11	307
	12	510
Banerjee, M. N., B.A., M.R.C.S., Principal, Belgachia Medical College, and Fellow, Calcutta University, Calcutta.	8	11
	9	117
	10	234
	11	307
Banerjee, Muraly Dhar, M.A., Professor of Sanskrit, Sanskrit College, and Lecturer in Sanskrit, Calcutta University, Calcutta.	8	11
	9	117
	10	234
	11	308
	12	510
Banerjee, Ravaneswar, B.A., B.T., Head Master, Hooghly Branch School, Chinsura.	8	11
	9	117
	10	235
	11	308
	12	510
Banerjee, Sasi Sekhar, B.A., Offg. Principal, Krishnath College, Berhampur.	8	12
	9	118
	10	235
	11	309
	12	511
Banerjee, Sudhansukumar, M.Sc., Lecturer in Applied Mathematics, Calcutta University, Dhakuria.	8	12
	9	118
	11	311
	12	511
Banerjee, Upendra Nath, Member, British Indian Association, Calcutta.	8	13
	10	235
Banerji, Manmathanath, M.Sc., Lecturer in Experimental Psychology, University College of Science, Calcutta.	8	13
	9	119
	10	236
	11	311
Banerji, The Hon'ble Justice Sir Pramada Charan, Kt., B.A., B.L., Puisne Judge, High Court, and Vice-Chancellor, University of Allahabad.	8	13
	9	120
	11	312
	12	511
Banerji, Surendra Chandra, M.A., B.Sc., Professor of Botany, Presidency College, and Lecturer in Botany, Calcutta University, Calcutta.	9	120
	10	236
	11	313

Name and designation of correspondent.	*Question answered.*	*Page.*
Banerji, Umacharan, M.A. Principal and Professor of Sanskrit and English, Burdwan Raj College, Joint Editor, *Sanskrita Bharati* and *Sanskrita Bharati Supplement*, and Vice-President, Bangiya Sahitya Parishad, Burdwan.	8	13
	9	121
	10	237
	11	314
	12	511
Bardaloi, N. C., Vakil, Calcutta High Court, Gauhati.	9	122
	11	315
	12	512
Barrow, J. R., B.A., Offg. Principal, Presidency College, and Fellow, Calcutta University, Calcutta	8	14
	9	122
	11	315
Basu, Nalinimohan, M.S., Lecturer in Applied Mathematics, University College of Science, Calcutta.	11	318
Basu, P., Professor of Economics, Holkar College, Indore.	9	123
	10	237
	11	319
	12	512
Basu, Rai P. K., Bahadur, M.A., Second Inspector of Schools, Dacca Division, Dacca.	9	124
	10	237
	11	320
Basu, Satyendra Nath, M.A., Principal, Victoria College, Comilla.	8	15
	9	125
	11	321
	12	513
Bengal Landholders' Association, Calcutta.	8	15
	9	125
	10	238
	11	321
	12	513
Bengal National Chamber of Commerce, Calcutta.	8	15
	9	125
	11	322
Bethune College, Calcutta.—		
Bhattacharya, Krishnachandra, M.A., Premchand Roychand Scholar, Professor of Philosophy and Logic.	8	15
	9	125
	10	238
	11	322
	12	513
Chatterjee, Kumud Bandab, M.A., Additional Lecturer in Sanskrit.	8	15
	9	125
	10	238
	11	322
	12	513

Name and designation of correspondent.	*Question answered.*	*Page.*
Bethune College, Calcutta —*contd.*		
Chowdhury, Benoy Kumar, M.A., Lecturer in History and Political Economy.	8	15
	9	125
	10	238
	11	322
	12	513
Janau, Miss A. L., B.S·., Principal	8	15
	9	125
	11	513
Mukerjee, Bijoy Gopal, M.A., Professor of English.	8	15
	9	125
	10	238
Roy, Debendra Nath, M.A., Lecturer in Sanskrit	8	15
	9	125
	10	238
	11	322
	12	513
Sen, Pares Nath, B.A., Professor of English	8	15
	9	125
	10	238
Sen, Probodh Chandra, M.A., B.T., Temporary Lecturer in Mathematics.	8	15
	9	125
	10	238
	11	322
	12	513
Bhaduri, Rai Indu Bhusan, Bahadur, B.L., Pleader, Krishnagar	9	126
	11	324
Bhaduri, Jyotibhushan, M.A., F.C.S., Premchand Roychand Scholar, Professor of Chemistry, Presidency College, Calcutta.	8	16
	9	126
	11	324
	12	513
Bhandarkar, D. R., M.A., Carmichael Professor of Ancient Indian History and Culture, and Fellow, Calcutta University, Calcutta.	9	126
Bhandarkar, Sir R. G., M.A., Ph.D., LL.D., K.C.I.E., Poona.	8	16
	9	127
	10	238
	11	325
	12	514
Bhattacharjee, Mohini Mohan, M.A., Lecturer in English, Calcutta University, Calcutta.	11	325
Bhattacharya, Jogendranath, M.A., B.T., Head Master, Hooghly Collegiate School, Chinsura.	8	16
	9	127
	11	326

Name and designation of correspondent.	*Question answered.*	*Page.*
Bhattacharya, Krishnachandra, M.A., Lecturer in Mental and Moral Philosophy, Calcutta University, Serampore.	8	17
	9	128
	10	238
	11	327
	12	514
Bhattacharya, Nibaranchandra, M.A., Professor of Physiology, Presidency College, and Lecturer in Physiology, Calcutta University, Calcutta.	8	17
Bhattacharyya, Baikuntha Nath, B.A., Head Master, Government High School, Sylhet.	8	17
	9	128
	10	238
	11	328
	12	514
Bhattacharyya, Dibakar, B.A., Offg. Head Master, Burdwan Raj Collegiate School, Burdwan.	11	329
	12	514
Bhattacharyya, Haridas, M.A., B.L., Lecturer in Philosophy and Experimental Psychology, Calcutta University, and Honorary Professor of Philosophy and Logic, Scottish Churches College, Calcutta.	8	17
	9	129
	10	238
	11	330
	12	514
Bhattacharyya, Mahamahopadhyaya Kaliprasanna, M.A., Lecturer in Sanskrit, Calcutta University, Calcutta.	8	18
	9	130
	10	239
	11	332
	12	515
Bhowal, Govinda Chandra, B.L., Vakil, Judge's Court, Dacca.	8	18
	9	130
	10	239
	11	333
	12	515
Biss, E. E., Inspector of Schools, Dacca Division, and Fellow, Calcutta University, Dacca.	8	18
	9	130
	11	334
Bisvas, Rai Dinanath, Bahadur, B.L., Pleader, and Secretary, Edward College, Pabna.	9	131
	11	335
	12	515
Biswas, Charu Chandra, M.A., B.L., Vakil, High Court, Professor of Hindu Law, University Law College, and Fellow, Calcutta University, Calcutta.	8	19
	9	131
	10	240
	11	336
	12	515
Biswas, Saratlal, M.Sc., Assistant Professor of Geology, Calcutta University, Calcutta.	8	20
	9	131
	10	240
	11	336

Name and designation of correspondent.	*Question answered.*	*Page.*
Bompas, The Hon'ble Mr. C. H., B A., Bar.-at-Law, I.C.S., J.P., Chairman, Calcutta Improvement Trust, Calcutta.	9	132
	11	337
Borooah, Jnanadabhiram, Bar-at-Law, Principal, Earle Law College, Gauhati.	8	20
	9	132
	10	240
	11	337
	12	516
Bose, B. C., M.A., Professor of English, Presidency College, Calcutta.	8	20
	9	132
	11	337
Bose, Rai Chunilal, Bahadur, I.S.O., M.B , F.C.S., Offg. Chemical Examiner to the Government of Bengal, Professor of Chemistry, Medical College, and Fellow, Calcutta University, Calcutta.	8	21
	9	132
	11	338
	12	516
Bose, G. C., M.A., M.R.A.C., M.R.A.S., F.H.A.S., Principal, Bangabasi College, and Fellow, Calcutta University, Calcutta.	8	21
	9	132
	10	240
	11	339
Bose, Harakanta, B.A., Head Master, Hare School, Calcutta.	8	21
	9	133
	11	339
	12	516
Bose, Sir J. C., Kt., C.S.I., C.I.E., M A., D.Sc., Calcutta.	8	21
	10	241
Bose, J. M., M.A., B.Sc., Bar.-at-Law, Professor of Mathematics, Presidency College, Calcutta.	8	21
	9	133
	11	340
Bose, Khudi Ram, B.A., Principal, Central College, Calcutta.	8	22
	9	135
	11	340
	12	516
Bose, Miss Mrinalini, Assistant Inspectress of Schools, Rajshahi Division, Jalpaiguri.	8	22
	9	135
	11	341
	12	516
Bose, Radhikanath, M.A., Principal, Edward College, Pabna.	11	341
Bottomley, J. M., B.A., Principal, Hooghly College, Chinsura	10	241
Brown, Rev. A. E., M.A., B.Sc., Principal, Wesleyan Mission College, Bankura.	8	22
	9	136
	10	241
	11	343

Name and designation of correspondent.	*Question answered.*	*Page.*
Brown, Arthur, M.A., LL.B., F.R.H.S., Bar.-at-Law, Professor of Economics and Political Philosophy, Cotton College, and Lecturer in Roman Law, Real Property, etc., Earle Law College, Gauhati.	11	344
Burdwan, Maharajadhiraja Bahadur of *Please see Mahtab, The Hon'ble Sir Bijay Chand.*		
Cameron, M. B., M.A., B.Sc., Principal, Canning College, Lucknow.	11	344
Chaki, Rai Sahib Nritya Gopal, Pleader, and Member, Edward College Council, Pabna.	11	347
Chakravarti, Brajalal, M.A., B.L., Secretary, Hindu Academy, Daulatpur.	8 9 11	23 136 347
Chakravarti, Chintaharan, B.A., Head Master, Collegiate School, Rajshahi.	9 11	136 348
Chakravarti, Chinta Haran, M.A., B.T., Offg. Principal, David Hare Training College, Calcutta.	8 9 10 11 12	23 137 242 348 516
Chakravarti, Rai Mon Mohan, Bahadur, M.A., B.L., F.A.S.B., M.R.A.S., Deputy Collector, Comilla.	9 11	137 348
Chakravarti, Vanamali, Vedantatirtha, M.A., Senior Professor of Sanskrit, Murarichand College, Sylhet.	8	23
Chakravarty, Anukulchandra, Pleader, District Court, Founder, Proprietor and Member, Managing Board, Rajshahi Bholanath Academy, and Joint Secretary, Rajshahi Association, Rajshahi.	11	349
Chakravarty, Niranjan Prasad, M.A., Lecturer in Sanskrit, Calcutta University, Calcutta.	11 12	350 516
Chanda, The Hon'ble Mr. Kamini Kumar, M.A., B.L., Vakil, Additional Member, Imperial Legislative Council, and Fellow, Calcutta University, Calcutta.	8 9 10 11 12	23 138 242 350 517
Chatterjee, The Hon'ble Mr. A. C., I.C.S., On special duty with the United Provinces Government, Lucknow.	8 9 10 11 12	24 138 242 350 517
Chatterjee, Rai Lalitmohan, Bahadur, M.A., Principal, Jagannath College, and Fellow, Calcutta University, Dacca.	8 9 11 12	24 138 351 517

Name and designation of correspondent.	*Question answered.*	*Page.*
Chatterjee, P. K., B.Sc., B.A., Vice-Principal and Professor of Economics, Carmichael College, Rangpur.	8	24
	9	139
	11	351
	12	517
Chatterjee, Pramathanath, M.A., Second Inspector of Schools, Burdwan Division, Chinsura.	11	352
	12	517
Chatterjee, Ramananda, M.A., Editor, *The Modern Review* and *The Prabasi*, and Honorary Fellow, University of Allahabad, Calcutta.	8	25
	9	139
	10	242
	11	354
	12	518
Chatterjee, Santosh Kumar, M.A., Professor of History and Politics, Rajshahi College, Rajshahi.	10	244
	11	355
Chatterjee, Rai Bahadur Sarat Chandra, B.L., Government Pleader, Rangpur.	8	25
	9	139
	10	244
	11	357
	12	518
Chatterjee, Satis Chandra, M.A., Lecturer in Mental and Moral Philosophy, Calcutta University, Calcutta.	8	25
	9	140
	12	518
Chatterjee, Suniti Kumar, M.A., Premchand Roychand Scholar, Honorary Librarian, Calcutta University Institute, Member of the Executive Committee of the Bangiya Sahitya Parishad, and Lecturer in English, Calcutta University, Calcutta.	8	25
	9	140
	10	244
	11	357
	12	518
Chatterji, Mohini Mohan, M.A., B.L., Attorney-at-Law, Calcutta.	8	25
	9	140
	11	358
	12	519
Chaudhuri, The Hon'ble Justice Sir Asutosh, M.A., Bar.-at-Law, Puisne Judge, High Court, Calcutta.	8	26
	9	140
	10	245
	11	358
	12	519
Chaudhuri, Bhuban Mohan, B.A., Head Master, Zilla School, Pabna.	8	26
	9	141
	10	245
	11	359
	12	519
Chaudhuri, Hem Chandra Ray, M.A., Lecturer in History, Calcutta University, Calcutta.	8	26
	10	245
	11	359
	12	519

Name and designation of correspondent.	*Question answered.*	*Page.*
Chaudhuri, The Hon'ble Babu Kishori Mohan, M.A., B.L., Additional Member, Bengal Legislative Council, and Secretary, Rajshahi Association, Rajshahi.	8	26
	9	141
	10	245
	11	360
	12	520
Chaudhury, The Hon'ble Babu Brojendra Kishore Roy, Additional Member, Bengal Legislative Council, and Zamindar, Mymensingh.	8	26
	9	142
	10	246
	11	360
	12	520
Chaudhury, The Hon'ble Nawab Syed Nawabaly, Khan Bahadur, C.I.E., Additional Member, Imperial Legislative Council, and Fellow, Calcutta University, Calcutta.	8	27
	10	246
	11	361
	12	520
Choudhury, Rai Yatindra Nath, M.A., B.L., Zamindar, Barnagore.	8	27
	10	247
	11	361
	12	521
Chowdhuri, Dhirendranath, M.A., Professor of Logic, Edward College, Pabna.	11	362
Cocks, S. W., M.A., Director of Public Instruction, Burma, and Fellow, Calcutta University, Rangoon.	8	27
	11	362
	12	521
Coleman, Dr. Leslie C., M.A., Ph.D., Director of Agriculture in Mysore, Bangalore.	9	142
	10	
Cotter, G. de P., B.A., F.G.S., Professor of Geology, Presidency College, Calcutta.	8	102
	10	288
	11	499
Covernton, The Hon'ble Mr. J. G., M.A., C.I.E., Director of Public Instruction, Bombay Presidency, and Fellow, Bombay University, Bombay.	10	248
	11	363
Cowley, The Hon'ble Mr. F. A. A., Chief Engineer, Public Works Department, Bengal, Secretary to the Government of Bengal in Irrigation and Marine Branches, and Fellow, Calcutta University, Calcutta.	9	142
	11	364
Crohan, Rev. Father F., S.J., Rector, St. Xavier's College, and Fellow, Calcutta University, Calcutta.	8	27
	9	142
	10	248
	11	364
Cullis, Dr. C. E., M.A., Ph.D., Hardinge Professor of Mathematics, and Fellow, Calcutta University, Calcutta.	8	28
	9	142
	10	248
	11	364
	12	521

Name and designation of correspondent.	*Question answered.*	*Page.*
Cunningham, The Hon'ble Mr. J. R., M.A., Director of Public Instruction, Assam, and Fellow, Calcutta University, Shillong.	8 9 11	28 143 364
Das, Rai Bhupatinath, Bahadur, M.A., B.Sc., Professor of Chemistry, Dacca College, and Fellow, Calcutta University, Dacca.	8 9 11 12	28 143 365 521
Das, Bhusan Chandra, M.A., Professor of English, Krishnath College, Berhampur.	8 9 10	28 144 249
Das, Dr. Kedarnath, M.D., C.I.E., Teacher of Midwifery, Campbell Medical School, and Fellow, Calcutta University, Calcutta.	8 9 10 11	29 144 249 366
Das, Saradaprasanna, M.A., Professor of Mathematics, Presidency College, and Lecturer in Mixed Mathematics, Calcutta University, Calcutta.	9	144
Das Gupta, Hem Chandra, M.A., F.G.S., Demonstrator in Geology, Presidency College, and Lecturer in Geology, Calcutta University, Calcutta.	8 10 11 12	31 249 366 522
Das Gupta, Karuna Kanta, B.A., Head Master, Collegiate School, Gauhati.	9 10 11	144 250 367
Das Gupta, Surendranath, M.A., Professor of Sanskrit, Chittagong College, Chittagong.	8 10 11 12	31 250 367 522
Datta, A. C., B.A., Principal, Murarichand College, and Fellow, Calcutta University, Sylhet.	8 9 11 12	33 145 370 522
Datta, Bibhutibhuson, M.Sc., Lecturer in Applied Mathematics, Calcutta University, Calcutta.	11 12	370 522
Datta, Birendra Kumar, M.A., B.L., Munsiff, Mymensingh.	11	371
De, Har Mohun, B.A., Head Master, Government Zilla School, Mymensingh.	8 9 11 12	33 145 372 523
De, Satischandra, M.A., Offg. Senior Professor of English Literature, Dacca College, Dacca.	8 9 10 11 12	33 146 253 372 523

Name and designation of correspondent.	*Question answered.*	*Page.*
De, Sushil Kumar, M.A., Lecturer in English, Calcutta University, Calcutta.	8	33
	9	146
	10	254
	11	373
	12	523
Dey, B. B., M.Sc., D.I.C., F.I.C., F.C.S., Premchand Roychand Scholar, Offg. Professor of Chemistry, Presidency College, Calcutta.	8	16
	9	126
	11	324
	12	513
Dey, Baroda Prosaud, B.L., Chairman, Serampore Municipality, and Honorary Secretary, Serampore Union Institution, Serampore.	8	34
	9	147
	10	255
	11	375
	12	528
Dey, N. N., M.A., B.Sc., Professor of Physics, Ripon College, and Editor, *The Collegian*, Calcutta.	8	34
	9	147
	10	255
	11	375
	12	528
Dhar, Rai Sahib Bihari Lal, Retired Deputy Inspector of Schools, Dacca.	8	35
	10	255
	11	376
D'Souza, P. G., B.A., B.L., Secretary to the Government of His Highness the Maharaja of Mysore, Departments of Education and Agriculture, Mysore.	8	35
	9	147
	11	376
	12	528
Duke, W. V., B.A. (B.U.I.), M.A. (T.C.D.), Inspector of Schools, Orissa Division, Cuttack.	9	147
	10	255
	11	376
Dunn, S. G., M.A., Professor of English Literature, Muir Central College, and Fellow, University of Allahabad, Allahabad.	9	147
	11	376
Dunn, T O. D., M.A., Inspector of Schools, Presidency Division, Bengal, and Fellow, Calcutta University, Calcutta.	8	36
	11	377
Dunnicliff, Horace B., M.A., B.Sc., F.C.S., Professor of Chemistry, Government College, Lahore.	9	148
	11	379
	12	528
Dutt, Bamapada, Vakil, and Legal Adviser to the Hon'ble the Maharajah of Kasimbazar, Berhampur.	8	37
	9	149
	10	255
	11	380
Dutt, P. N., M.A., B.L., Bar.-at-Law, Professor of Criminal Law and Equity, University Law College, Calcutta	8	38
	11	381

Name and designation of correspondent.	*Question answered.*	*Page.*
Dutt, Rebati Raman, M.A., Deputy Magistrate and Deputy Collector, Bakargunge.	8	39
	9	149
	10	255
	11	381
	12	529
Dutta, Bidhu Bhusan, M.A., Professor of Chemistry, Presidency College, Calcutta.	8	16
	9	126
	11	324
	12	513
Dutta, Promode Chandra, B.A., B.L., Vakil, Calcutta High Court, and Government Pleader, Sylhet.	8	39
	9	151
	10	257
	11	382
	12	529
Dutta, Rabindra Mohan, M.A., Lecturer in English, Calcutta University, Calcutta.	11	383
	12	529
European Association, Calcutta.	10	257
Fawcus, G. E., M.A., Director of Public Instruction, Bihar and Orissa, and Fellow, Patna University, Ranchi.	8	39
	11	384
Forrester, Rev. J. C., M.A., Head of the Dublin University Mission, and Fellow, Patna University, Hazaribagh.	8	40
	9	151
	11	385
Ganguli, Surendra Mohan, M.Sc., Premchand Roychand Scholar, Lecturer in Pure Mathematics, Calcutta University, Calcutta.	9	151
	10	258
	11	385
	12	529
Ganguli, Syamacharan, B.A., Honorary Fellow, Calcutta University, Calcutta.	8	40
	9	152
	10	258
	11	385
Geddes, Patrick, Professor of Botany, University College, Dundee, St. Andrews University, C/o The Durbar, Indore.	8	41
	9	152
	10	258
	11	387
	12	530
Ghosa, Piatapcandra, B.A., Government Pensioner, Vindhyacal, Mirzapur.	8	41
	9	153
	11	388
	12	530
Ghose, Sir Rash Behary, Kt., C.S.I., C.I.E., M.A., D.L., Ph.D., Fellow, Calcutta University, Calcutta.	8	41
	9	153
Ghosh, Dr. B. N., D.Sc., Senior Professor of Chemistry, Cotton College, Gauhati.	10	259

Name and designation of correspondent.	*Question answered.*	*Page.*
Ghosh, Bimal Chandra, M.A., M.B., B.C., Professor of Physics, Vidyasagar College, Professor of Physiology, Belgachia Medical College, and Lecturer in Philosophy and Psychology, Calcutta University, Calcutta.	8	41
	9	153
	10	259
	11	388
	12	530
Ghosh, Devaprasad, M.A., Professor of Mathematics, Ripon College, Calcutta.	8	41
	9	154
	10	259
	11	388
	12	530
Ghosh, Rai Hari Nath, Bahadur, M.D., Civil Surgeon, and Fellow, Calcutta University, Rangpur.	8	41
	9	155
	11	389
	12	530
Ghosh, Dr. Jajneswar, M.A., Ph.D., Principal, Ananda Mohan College, Mymensingh.	8	42
	11	389
	12	531
Ghosh, Jnanchandra, M.A., Inspector of Colleges, and Fellow, Calcutta University, Calcutta.	8	42
	9	155
	11	390
	12	531
Ghosh, Jnanendra Chandra, M.Sc., Lecturer in Physical Chemistry, University College of Science, Calcutta.	9	155
	11	390
Ghosh, Rai Bahadur Nisi Kanta, B.L., Pleader, Mymensingh.	8	42
	9	155
	11	391
	12	531
Gilchrist, R. N., M.A., F.R.E.S., Principal, Krishnagar College, and Fellow, Calcutta University, Krishnagar.	8	43
	9	156
	10	259
	11	392
Goswami, Bhagabat Kumar, Sastri, M.A., Professor of Sanskrit, Hooghly College, Chinsura.	8	44
	9	157
	10	261
	11	392
	12	531
Goswami, Rai Sahib Bidhubhusan, M.A., Professor of Sanskrit, Dacca College, Superintendent, Dacca College Hostel, and Fellow, Calcutta University, Dacca.	8	45
	9	158
	10	261
	11	393
	12	531
Goswamy, Haridas, Head Master, E. I. Ry. High English School, Asansol.	8	45
	9	158
	11	393
	12	532

Name and designation of correspondent.	*Question answered.*	*Page.*
Gray, Dr. J. Henry, M.D., M.P.E., Secretary to Physical Department of National Council, Young Men's Christian Association (India and Ceylon), Calcutta.	9 11	159 395
Griffith, W. E., M.A., Inspector of Schools, Burdwan Division, and Fellow, Calcutta University, Chinsura.	11	395
Guha, Jatindra Chandra, M.A., Professor of English, Rajshahi College, Rajshahi.	8 11 12	45 396 532
Guha, Jites Chandra, M.A., Professor of English, Midnapore College. (At present Professor of English, Vidyasagar College, Calcutta.)	9 12	159 532
Guha, Rajanikanta, M.A., Lecturer in English, Calcutta University, Calcutta.	8 9 11 12	45 159 398 532
Gunn, J. W., M.A., Assistant Director of Public Instruction, Bengal, Calcutta.	8 9 11	46 160 399
Gupta, Amrita Lal, M.A., B.T., Senior Teacher of History and English, Hindu School, Calcutta.	8 9 10 11 12	46 160 262 399 532
Gupta, Bipin Behari, M.A., Professor of History, Ripon College, Calcutta.	8 9 10 11 12	46 160 262 399 532
Gupta, Satyendranath, B.A., B.T., Offg. Head Master, Howrah Zilla School, Howrah.	9 10 11 12	161 263 400 533
Gupta, Umes Chandra, B.L., Pleader, and President, Pleaders' Library, Rangpur.	8 9 11 12	47 161 400 533
Haldar, Dr. Hiralal, M.A., Ph.D., Lecturer in Philosophy, and Fellow, Calcutta University, Calcutta.	8 9 11	47 161 401
Haldar, Umes Chandra, M.A., B.T., Head Master, Zilla School, Rangpur.	8 9 11 12	47 162 402 533

Name and designation of correspondent.	*Question answered.*	*Page.*
Hamilton, C. J., M.A., Minto Professor of Economics, and Fellow, Calcutta University, Calcutta.	9	162
Haq, Khan Sahib Maulvi Kazi Zahiral, B.A., Head Master, Government Muslim High School, Dacca.	8	47
	9	163
	11	402
	12	533
Harley, A. H., M.A., Principal, The Madrassah, and Fellow, Calcutta University, Calcutta.	8	47
	9	164
	10	263
	11	402
	12	534
Hay, Dr. Alfred, D.Sc., M.I.E.E., Professor of Electrical Technology, Indian Institute of Science, Bangalore.	11	403
Hazra, Jogendra Nath, M.A., Principal, Midnapore College, Midnapore.	8	48
	9	164
	11	403
	12	534
Holland, Rev. W. E. S., M.A., Principal, St. Paul's Cathedral Mission College, and Fellow, Calcutta University, Calcutta.	10	263
	11	404
Holmes, Rev. W. H. G., of the Oxford University Mission to Calcutta, Superintendent, Oxford Mission Hostel of St. Luke, Calcutta.	8	48
	9	164
	11	405
Hossain, Wahed, B.A., B.L., F.R.A.S., Vakil, High Court, and Secretary, Bengal Presidency Muhammadan Educational Association, Calcutta.	8	49
	9	164
	11	406
	12	534
Howard, Mrs. G. L. C., M.A., Second Imperial Economic Botanist, Agricultural Research Institute, Pusa.	11	407
Hunter, M., M.A., F.C.S., C.I.E., Principal, Rangoon College, and Fellow, Calcutta University, Rangoon.	8	51
Hunter, Mark, M.A., Professor of English, Presidency College, and Fellow, Madras University, Madras.	9	165
	10	263
	11	407
	12	534
Huq, The Hon'ble Maulvi A. K. Fuzlul, M.A., B.L., Vakil, High Court, Additional Member, Bengal Legislative Council, and President, Bengal Presidency Muslim League, Calcutta.	8	51
	9	165
	10	264
	11	408
	12	535
Huque, M. Azizul, B.L., Pleader, and Joint Secretary, Bengal Presidency Muhammadan Educational Association, Krishnagar.	8	51
	9	165
	10	264
	12	536

Name and designation of correspondent.	*Question answered.*	*Page.*
Huque, Kazi Imdadul, B.A., B.T., Head Master, Calcutta Training School, Calcutta.	8	51
	9	166
	10	264
	11	409
	12	536
Husain, The Hon'ble Mian Muhammad Fazli, Khan Bahadur, Bar.-at-Law, Advocate, Chief Court, Additional Member, Punjab Legislative Council, and Fellow, Punjab University, Lahore.	10	264
	11	410
Hydari, M. A. N., B.A., Secretary to His Exalted Highness the Nizam's Government, Judicial, Police and General Departments, Hyderabad (Deccan).	8	52
	9	167
	10	265
	11	410
	12	536
Ibrahim, Khan Bahadur Muhammad, B.A., Additional Inspector of Schools, Presidency Division, and Fellow, Calcutta University, Calcutta.	8	57
	9	167
	10	265
	12	536
Imam, The Hon'ble Justice Sir Ali, K.C.S.I., Bar.-at-Law, Puisne Judge, High Court, Patna.	8	58
	10	265
	11	410
	12	536
Indian Association, Calcutta.	9	167
	10	265
	11	411
Irfan, Maulvi Mohammad, M.A., Professor of Arabic and Persian, Dacca College, and Fellow, Calcutta University, Dacca.	9	168
	10	265
	11	411
Irons, Miss M. V., M.A. (T.C.D.), Inspectress of Schools, Dacca Circle, Dacca.	8	58
	9	168
	11	412
	12	537
Ismail, Khan Bahadur Mohammad, B.L., Public Prosecutor, and Vice-Chairman, District Board, Mymensingh.	8	59
	9	168
	10	266
	11	412
	12	537
Iyer, The Hon'ble Mr. Justice T. V. Seshagiri, B.A., B.L., Puisne Judge, High Court, and Fellow, Madras University, Madras.	8	59
	9	168
	11	412
	12	537
Jalil, Abdul, M.Sc., Assistant Professor of Physics, and Superintendent, Muslim Hostel, Meerut College, Meerut.	9	169
	10	266
	11	412
	12	537

Name and designation of correspondent.	*Question answered.*	*Page.*
Jenkins, O. F., I.C.S., Secretary and Member, Board of Examiners, Calcutta.	10	266
Jenkins, Walter A., M.Sc., Professor of Physics, Dacca College, Dacca.	8	59
	9	169
	10	267
Jennings, The Hon'ble Mr. J. G., M.A., Vice-Chancellor, Patna University, Patna.	8	59
	10	267
Johnston, Rev. A. B., M.A., Vice-Principal, St. Paul's Cathedral Mission College, Calcutta.	8	60
	9	170
	10	267
	11	413
Jones, C. E. W., M.A., Director of Public Instruction, North-West Frontier Province, Peshawar.	8	60
	11	414
Jones, T. Cuthbertson, B.A., Principal and Professor of English Literature, Agra College, Agra.	9	170
	11	416
Kadir, A. F. M. Abdul, M.A., M.F., Professor of Persian, Ravenshaw College, Cuttack.	9	170
	11	417
Kar, Sites Chandra, M.A., Professor of Mathematics, Bangabasi College, and Lecturer in Applied Mathematics, Calcutta University, Calcutta.	8	61
	9	171
	11	417
Karim, Maulvi Abdul, B.A., Honorary Fellow, Calcutta University, Calcutta.	8	61
	9	171
	10	268
	11	418
Karve, D. K., Founder of the Hindu Widows' Home, and Organiser of the Indian Women's University, Poona City.	11	419
	12	538
Kasimbazar, Maharajah of. Please see Nandy, The Hon'ble Maharajah Sir Manindra Chandra.		
Khan, Abul Hashem, Assistant Inspector of Schools, Burdwan Division, Chinsura.	8	61
	9	171
	10	268
	11	420
	12	538
Khan, Mohomed Habibur Rahman, Shirwani, Honorary Joint Secretary, All-India Muhammadan Educational Conference, Aligarh.	8	62
	9	172
	10	268
	11	420
	12	538
Khastgir, Karunamay, M.Sc., Professor of Mathematics, Presidency College, and Lecturer in Applied Mathematics, Calcutta University, Calcutta.	8	62
	11	420

Name and designation of correspondent.	*Question answered.*	*Page.*
Ko, Taw Sein, C.I.E., I.S.O., K.S.H., M.R.A.S., Superintendent, Archæological Survey, Burma Circle, Mandalay.	8	62
	9	172
	10	268
	11	421
	12	538
Krishnagar, Maharaja of. *Please see* ***Ray, Maharaja Kshaunish Chandra, Bahadur.***		
Kundu, Rai Bejoy Narayan, Bahadur, Zamindar, Itachuna.	11	421
Kundu, Purnachandra, M.A., Offg. Principal, Chittagong College, Chittagong	8	62
	9	172
	10	268
	11	422
Lahiri, Becharam, B.A., B.L., Pleader, Judge's Court, and Secretary, Nadia District Association, Krishnagar.	9	173
	11	422
Lahiri, Gopal Chandra, Proprietor, Pabna Institution, Pabna.	8	63
	9	173
	10	269
	11	422
Lahiry, Ranojit Chandra, M.A., B.L., Pleader, District Court, and Member, Edward College Council, Pabna.	8	63
	9	173
	11	423
	12	538
Langley, G. H., M.A., Professor of Philosophy, Dacca College, Dacca.	8	64
	9	173
	11	423
Latif, Syed Abdul, Khan Bahadur, B.A., B.L., Sadar Sub-Divisional Officer, Dacca.	11	423
Law, The Hon'ble Rajah Reshee Case, C.I.E., Honorary Secretary, British Indian Association, Calcutta.	8	64
Lucas, Rev. E. D., M.A., Offg. Principal, Forman Christian College, Lahore.	9	174
Mackenzie, A. H., M.A., B.Sc., Principal, Government Training College, and Fellow, University of Allahabad, Allahabad.	8	64
	9	174
	11	423
Mahalanobis, Prasanta Chandra, B.A., Professor of Physics, Presidency College, Calcutta.	8	66
	9	176
	10	269
	11	426
	12	539
Mahasai, Kumar Kshitindradeb Rai, of Bansberia Raj, Calcutta	8	69
	9	177
	11	427
	12	539

Name and designation of correspondent.	*Question answered.*	*Page.*
Mahtab, The Hon'ble Sir Bijay Chand, K.C.S.I., K.C.I.E., I.O.M., Maharajadhiraja Bahadur of Burdwan, Calcutta.	9	178
	11	428
	12	539
Maitra, Akshay Kumar, B.L., Director, Varendra Research Society, and Member, Asiatic Society, Bengal, Rajshahi.	8	69
	9	179
	11	429
	12	539
Maitra, Gopal Chandra, M.A., Principal, Victoria College, Narail.	8	70
	9	179
	10	270
	11	429
	12	540
Maitra, Herambachandra, M.A., Principal, City College, and Fellow, Calcutta University, Calcutta.	8	70
	9	179
	11	429
Majumdar, Biraj Mohan, M.A., B.L., Vice-Principal, University Law College, and Fellow, Calcutta University, Calcutta.	11	430
Majumdar, Panchanan, B.L., Pleader, and Secretary, Akrumani Coronation High English School, Malda.	8	70
	9	180
	10	270
	11	430
	12	540
Majumdar, Ramesh Chandra, M.A., Assistant Professor of History, Calcutta University, Calcutta.	8	70
	9	180
	10	271
	11	430
	12	540
Majumder, Narendrakumar, M.A., Lecturer in Pure Mathematics, Calcutta University, Calcutta.	9	180
	11	431
	12	540
Mallik, Dr. D. N., B.A., D.Sc., F.R.S.E., Professor of Mathematics, Presidency College, and Fellow, Calcutta University, Calcutta.	8	71
	9	181
	12	540
Masood, Syed Ross, B.A., Bar.-at-Law, Director of Public Instruction, Hyderabad (Deccan).	8	71
	9	181
	10	271
	12	540
Mayhew, The Hon'ble Mr. A. I., B.A., Director of Public Instruction, Central Provinces, and Fellow, University of Allahabad, Nagpur.	11	432
Mazumdar, The Hon'ble Babu Amvika Charan, M.A., B.L., Additional Member, Bengal Legislative Council, Faridpur.	8	71
	9	182
	10	271
	11	433
	12	541

Name and designation of correspondent.	*Question answered.*	*Page.*
Mazumdar, C. H., B.A., Head Master, Mrityunjoy School, Mymensingh.	8	71
	9	182
	10	272
	11	433
McDougall, Miss Eleanor, M.A., Principal, Women's Christian College, Madras.	8	71
	9	182
	10	272
	11	434
Mitra, Khagendra N., B.A., Lecturer in Experimental Psychology, Calcutta University, Calcutta.	8	72
	9	183
	10	272
	11	434
	12	541
Mitra, The Hon'ble Rai Mahendra Chandra, Bahadur, M.A., B.L., Vakil, Additional Member, Bengal Legislative Council, Member, Governing Body, Hooghly College, Chairman, Hooghly-Chinsura Municipality, and Member, District Board, Hooghly, Chinsura.	8	72
	9	183
	10	272
	11	434
	12	541
Mitra, Ram Charan, C.I.E., M.A., B.L., Senior Government Pleader, High Court, Calcutta.	8	72
	9	184
	11	435
	12	541
Mitter, Dr. Dwarkanath, M.A., D.L., Vakil, High Court, and Fellow, Calcutta University, Calcutta.	8	72
	9	184
	11	435
Mitter, Dr. Profulla Chandra, M.A., Ph.D., Sir Rash Behary Ghose Professor of Chemistry, University College of Science, and Fellow, Calcutta University, Calcutta.	8	73
	9	184
Mitter, The Hon'ble Mr. Provash Chunder, Vakil, High Court, Additional Member, Bengal Legislative Council, Secretary, South Suburban College and School, and Secretary, Sir R. C. Mitter Hindu Girls' School, Calcutta.	11	436
Mohammad, Dr. Wali, M.A., Ph.D., Tutor and Professor of Physics, Muhammadan Anglo-Oriental College, and Fellow, University of Allahabad, Aligarh.	8	73
	9	185
	10	273
	11	436
	12	541
Monahan, The Hon'ble Mr. F. J., I.C.S., Commissioner, Presidency Division, and Additional Member, Imperial Legislative Council. Calcutta.	11	437
Mukerjee, Adhar Chandra, M.A., B.L., Emeritus Professor of History, Scottish Churches College, and Fellow, Calcutta University, Calcutta.	8	73
	9	185
	11	441
	12	541

Name and designation of correspondent.	*Question answered*	*Page.*
Mukerjee, Dr. Adityanath, M.A., Ph.D., Premchand Roychand Scholar, Professor of Philosophy, Presidency College, Calcutta.	8 9 10 11	73 186 273 442
Mukerjee, Bijoy Gopal, M.A., Professor of English, Bethune College, and Lecturer in English, Calcutta University, Calcutta.	8 9 11 12	74 187 442 541
Mukerjee, Radhakamal, M.A., Premchand Roychand Scholar, Lecturer in Economics, Calcutta University, Calcutta.	8 9 11 12	74 187 442 542
Mukerji, Satish Chandra, M.A., Demonstrator in Chemistry, Presidency College, Calcutta.	11	443
Mukheriee, B., M.A., F.R.E.S., Vakil, High Court, and Occasional Lecturer in Economics, Diocesan College for Girls, Calcutta.	9 10 11 12	187 273 443 542
Mukherjee, Jnanendranath, M.Sc., Lecturer in Physical Chemistry, University College of Science, Calcutta.	9 10 11	188 273 445
Mukherji, Atindra Nath, M.A., B.L., Professor of History, Ripon College, Calcutta.	8	74
Mukherji, Panchanandas, M.A., F.R.E.S., Professor of Political Economy and Political Philosophy, Presidency College, and Lecturer in Economics, Calcutta University, Calcutta.	8 9 11 12	75 188 446 543
Mukhopadhyaya, Dr. Syamadas, M.A., Ph.D., Senior Lecturer in Pure Mathematics, Calcutta University, Calcutta.	8 9 10	76 188 274
Murarichand College, Sylhet.—	8	76
Ahmed, Maulvi Majiduddin, M.A., Professor of Persian.	10	275
Bhattacharya, Manjugopal, M.A., Professor of English.	11	446
Bhowani, Radhagobinda, M.A., Professor of Physics.	12	544
Chakravarti, Vanamali, Vedantatirtha, M.A., Senior Professor of Sanskrit.		
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Sen Gupta, Sureschandra, M.A., Professor of English.		
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Name and designation of correspondent.	*Question answered.*	*Page.*
Nag, J. C., B.Sc., Professor-in-Charge, Botanical Laboratory, Presidency College, Calcutta.	11	447
Nag, P. N., M.A., Head Master, United Free Church Mission High School, Chinsura.	8 11	76 447
Naik, K. G., Assistant Professor of Chemistry, University College of Science, and Lecturer in Chemistry, Calcutta University, Calcutta.	8 9 11	76 188 447
Nandi, Mathura Kanta, M.A., Head Master, Bankura Zilla School, on deputation to the David Hare Training College, Calcutta.	9 10 11 12	189 275 448 544
Nandy, The Hon'ble Maharajah Sir Manindra Chandra, of Kasimbazar, K.C.I.E., Additional Member, Imperial Legislative Council, Calcutta	8 9 11 12	77 189 448 544
Nanjundayya, H. V., C.I.E., M.A., M.L., Vice-Chancellor, Mysore University, Mysore.	9 11 12	189 448 544
Neogi, Dr. Ph, M.A., Ph.D., F.C.S., Professor of Chemistry, Rajshahi College, Rajshahi.	9 10 11	190 275 449
Neut, Rev. Father A., S.J., Honorary Fellow, Calcutta University, Calcutta.	8 11	77 451
North Bengal Zamindars' Association, Rangpur.	8 9 10 11 12	78 190 277 451 544
Oung, Maung May, M.A., LL.B., Bar.-at-Law, Lecturer in Law, Rangoon Law College, Rangoon.	9	190
Pal, The Hon'ble Rai Radha Charan, Bahadur, Additional Member, Bengal Legislative Council, Calcutta.	9 11	190 452
Paranjpye, The Hon'ble Mr. R. P., M.A., B.Sc., Principal, Fergusson College, Additional Member, Bombay Legislative Council, and Fellow, Bombay University, Poona.	9 10 11 12	191 277 452 544
Peake, C. W., M.A., Government Meteorologist, Calcutta.	11	453
People's Association, Khulna.	8 11 12	78 454 545

Name and designation of correspondent.	*Question answered*	*Page.*
Rahim, The Hon'ble Mr. Justice Abdur, M.A., Bar.-at-Law, Puisne Judge, High Court, and Fellow, Madras University, Madras.	9 11 12	192 454 545
Ray, Baikuntha Chandra, M.A., Professor of Mathematics, Krishnath College, Berhampur.	8 9 10	28 144 249 277
Ray, Dr. Bidhan Chandra, B.A., M.D., F.R.C.S., M.R.C.P., Teacher of Materia Medica, Campbell Medical School, and Fellow, Calcutta University, Calcutta.	9 11	192 455
Ray, Rai Biswambar, Bahadur, B.L., Government Pleader, Vice-Chairman, District Board, Nadia, and Chairman, Krishnagar Municipality, Krishnagar.	11	456
Ray, Joges Chandra, M.A., Professor of Botany, Ravenshaw College, Cuttack.	8 9 10 11 12	78 193 277 456 545
Ray, Maharaja Kshaunish Chandra, Bahadur, of Krishnagar, Nadia.	11	457
Ray, Manmathanath, M.A., B.L., Vakil, High Court, Professor of Real Property and Contracts and Torts, University Law College, and Fellow, Calcutta University, Calcutta.	8 9 10 11 12	78 193 277 457 545
Ray, Sir. P. C., D.Sc., Ph.D., F.S.C., C.I.E., Sir Taraknath Palit Professor of Chemistry, University College of Science, and Fellow, Calcutta University, Calcutta.	11	458
Ray, Raja Pramada Nath, of Dighapatia, Calcutta.	8 9 11	79 194 458
Ray, Rames Chandra, L.M.S., Medical Practitioner, and Member, Governing Body, Belgachia Medical College, Calcutta.	8	79
Ray, Sarat Chandra, B.L., Government Pleader, Chairman, Rampur-Bolia Municipality, and Lecturer in Law, Rajshahi College, Rajshahi.	8 9 10 11 12	80 194 278 458 545
Ray, Satis Chandra, M.A., Lecturer in Economics, Calcutta University, Kantalpara.	8 9 12	80 195 545
Reyazuddin, Syed, Quazi, B L., Secretary, National Muhammadan Association, Bogra.	8 9 11	80 195 459

Name and designation of correspondent.	*Question answered.*	*Page.*
Richardson, Thomas H., M.A., B.A.I., M.I.C.E., Professor of Civil Engineering, Civil Engineering College, and Fellow, Calcutta University, Sibpur.	9	195
Richey, The Hon'ble Mr. J. A., M.A., Director of Public Instruction, the Punjab, and Fellow, Punjab University, Lahore.	11	459
Roberts, David E., M.Sc., Fellow, University of Wales and Professor of Physics, Cotton College, Gauhati.	11	462
Roy, Hira Lal, B.A., Professor of Chemistry, Bengal Technical Institute, Calcutta.	10 11	278 462
Roy, Munindranath, B.A., Head Master, Coronation High English School, Dinajpur.	9 11	195 463
Roy, The Hon'ble Rai Sri Nath, Bahadur, Additional Member, Bengal Legislative Council, Mymensingh.	8 11 12	80 463 546
Roy, The Hon'ble Babu Surendra Nath, Additional Member, Bengal Legislative Council, Behala.	8 9 10 11	80 196 278 464
Rudra, S. K., M.A., Principal and Professor of Economics, St. Stephen's College, Delhi.	10 11	278 464
Saha, Meghnad, M.Sc., Lecturer in Mathematical Physics, University College of Science, Calcutta.	9 11	196 464
Sahay, Rai Bahadur Bhagvati, M.A., B.L., F.A.S.B., Offg. Inspector of Schools, Bhagalpur Division, Bhagalpur.	8 9 11 12	80 196 466 546
Sanyal, Nisikanta, M.A., Professor of History, Ravenshaw College, Cuttack.	8 9 12	81 197 546
Sapru, The Hon'ble Dr. Tej Bahadur, M.A., LL.D., Advocate, High Court, N. W. Provinces, and Additional Member, Imperial Legislative Council, Allahabad.	9 10 11 12	197 279 466 546
Sarkar, Akshaykumar, M.A., Professor of History, Chittagong College, Chittagong.	8 9 10 11 12	81 198 279 468 546
Sarkar, Bejoy Kumar, B.A., Lecturer in Economics, Calcutta University, Calcutta.	8 9 10 11	82 199 279 468

Name and designation of correspondent.	*Question answered.*	*Page.*
Sarkar, Gopal Chandra, B.A., Second Inspector of Schools, Dacca Division, Dacca.	8	82
	9	199
	10	279
	11	469
	12	546
Sarkar, Kalipada, M.A., Assistant Inspector of Schools, Chittagong Division, Chittagong.	8	82
	9	200
	10	280
	11	470
Sarma, The Hon'ble Rao Bahadur B. N., B.A., B.L., Vakil, High Court, and Additional Member, Imperial Legislative Council, Madras.	11	470
Sastri, Kokileswar, Vidyaratna, M.A., Professor of Vedanta and the Upanishads, Calcutta University, Calcutta.	8	82
	9	200
	11	470
	12	546
Sastri, Rai Rajendra Chandra, Bahadur, M.A., Bengali Translator to the Government of Bengal, and Lecturer in Sanskrit, Calcutta University, Calcutta.	8	82
	9	201
	10	280
	11	470
	12	547
Satiar, Radhika Lal, B.L., Secretary, Malda Association, Malda.	11	471
	12	547
Sayied, Abdullah Abu, M.A., Professor of Arabic and Persian, Cotton College, Gauhati.	8	83
	9	201
	12	547
Scottish Churches College Senatus, Calcutta.—	9	201
Cameron, A., M.A., Professor of English	11	471
Ewan, Rev. G., M.A., Professor of Philosophy.	12	548
Kydd, J. C., M.A., Professor of Political Philosophy and Economics.		
Urquhart, Rev. Dr. W. S., M.A., D. Phil., Vice-Principal and Professor of Philosophy, and Fellow, Calcutta University.		
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Seal, Dr. Brajendranath, M.A., Ph.D., George V. Professor of Mental and Moral Science, and Fellow, Calcutta University, Calcutta.	8	83
	9	202
	11	472
	12	548
Sen, Atul Chandra, M.A., B.L., Professor of Philosophy, Ripon College, Calcutta.	8	85
	11	473

Name and designation of correspondent.	*Question answered.*	*Page.*
Sen, B. M., M.Sc., Professor of Mathematics, Dacca College, Dacca.	8	85
	9	209
	10	281
Sen, Benoy Kumar, M.A., Professor of History, Presidency College, Calcutta.	8	86
	9	209
	10	281
	11	474
	12	549
Sen, Bimalananda, Head Master, Noakhali P. N. High School, Bogra.	9	209
	11	475
	12	549
Sen, Bipinbehari. M.A., B.L., Lecturer in History, Calcutta University, Calcutta.	8	88
	11	476
Sen, Rai Boikunt Nath, Bahadur, B.L., Vakil, High Court, Chairman, Murshidabad District Board, and Member, Governing Body and Board of Trustees, Krishnath College, Berhampur.	8	88
	9	210
	10	282
Sen, Rai Sahib Dines Chandra, B.A., Ramtanu Lahiri Research Fellow, and Fellow, Calcutta University, Calcutta.	12	549
Sen, Pran Hari, Rector, Radhanath High English School, Dacca.	9	210
	10	282
	11	477
Sen, Raj Mohan, M.A., Professor of Mathematics, Rajshahi College, Rajshahi.	8	88
	9	211
	11	478
Sen, Dr. S. K., L.R.C.P., L.R.C.S., L.R.F.P.S., Burdwan.	8	89
	9	212
	10	282
	11	479
Sen, Rai Satis Chandra, Bahadur, B.L., Senior Government Pleader, Chittagong.	8	89
	9	212
	10	282
	11	479
	12	551
Sen, Satish Chandra, B.A., Head Master, Hindu School, Calcutta.	8	89
	9	212
	10	282
	11	479
	12	551
Sen, Surendranath, M.A., Lecturer in History, Calcutta University, Calcutta.	11	480

Name and designation of correspondent.	*Question answered.*	*Page.*
Sen, Surya Kumar, B.A., Head Master, Patiya High School, Chittagong.	8	89
	9	213
	10	283
	11	480
	12	551
Sen Gupta, Hemchandra, M.A., Professor of Mathematics, Presidency College, and Lecturer in Applied Mathematics, Calcutta University, Calcutta.	8	89
	11	481
Sen Gupta, Dr. Narendranath, M.A., Ph.D., Lecturer in Charge of the Department of Experimental Psychology, Calcutta University, Calcutta.	9	213
Sen Gupta, Dr. Nares Chandra, M.A., D.L., Vice-Principal, Dacca Law College, Dacca.	8	90
	9	213
	10	283
	11	481
	12	552
Sen Gupta, Surendra Mohan, M.A., Professor of Mathematics, Ripon College, Calcutta.	8	90
	9	214
	11	482
	12	552
Serampore College, Serampore.—		
Angus, Rev., G. H. C., M.A., B.D., Professor of English and Hebrew.	8	91
	9	214
Bhaduri, S. C., M.A., Lecturer in History and Examiner of Exercises in English.	10	284
	11	452
Bhattacharyya, A. K., M.A., Lecturer in Bengali and Sanskrit.	12	552
Bhattacharyya, Pandit Panchanan, Kavyatirtha, Vidyabinod, Lecturer in Bengali and Sanskrit.		
Chakravarti, J. N., M.A., Lecturer in English.		
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Mukerji, N. N., M.A., Lecturer in History.		
Mukerji, S. C., M.A., B.L., Professor of English.		
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Underwood, Rev. A. C., M.A., B.D., Professor of English.		
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Name and designation of correspondent.	*Question answered.*	*Page.*
Serampore College, Serampore —*con'd.* Carpenter, Rev. G. C., B.A., B.D., Head Master, Collegiate High School.		
Sharp, The Hon'ble Mr. H., C.S.I., C.I.E., M.A., Educational Commissioner with the Government of India, Simla.	8	92
	9	215
	10	284
	11	484
	12	552
Shastri, Pashupatinath, M.A., B.L., Lecturer in Sanskrit, Calcutta University, Calcutta.	9	216
	10	285
Shastri, Dr. Prabhu Dutt, M.A., Ph.D., B.S., M.O.L., B.T., Senior Professor of Philosophy, Presidency College, and Lecturer in Mental and Moral Science, Calcutta University, Calcutta.	8	95
	9	217
	10	286
	11	486
	12	553
Sheth, Pandit Hargovind Das T., Nyayatirtha, Vyakarantirtha, Lecturer in Sanskrit, Calcutta University, Calcutta.	10	286
	11	487
	12	553
Shore, Rev. T. E. T., Oxford Mission, Dacca.	11	487
Singh, Prakas Chandra, B.A., Nyayabagisha, Senior Deputy Magistrate, Mymensingh.	9	217
	11	487
	12	553
Sinha, Anandakrishna, M.A., B.L., Professor of English, Ripon College, Calcutta.	11	489
	12	553
Sinha, Kumar Manindra Chandra, Zamindar, Paikpara Raj, Cossipur.	8	96
	9	218
	10	286
	11	490
	12	554
Sinha, Panchanan, M.A., B.L., Principal, South Suburban College, Calcutta.	8	96
	9	218
	10	286
	11	490
	12	554
Sinha, Upendra Narayan, M.A., Principal, Victoria College, Cooch Behar.	8	97
	9	218
	11	490
Sircar, Anukul Chandra, M.A., Ph.D., F.C.S., Premchand Roychand Scholar, Lecturer in Chemistry, Presidency College, Calcutta.	8	97
	9	219
	11	491
Sircar, The Hon'ble Sir Nilratan, Kt., M.A., M.D., Medical Practitioner, Additional Member, Bengal Legislative Council, and Fellow, Calcutta University, Calcutta.	8	97
	9	219
	11	491
	12	554

Name and designation of correspondent.	*Question answered.*	*Page.*
Slater, Dr. Gilbert, M.A., Professor of Indian Economics, Madras University, Madras.	11	491
Smith, W. Owston, M.A., Principal, Holkar College, Indore	8	98
	9	219
	10	287
	11	492
	12	554
Sorabji, Miss L., Principal, Eden High School for Girls, Dacca.	8	98
	11	492
Südmersen, F. W., B.A., Principal, Cotton College, and Fellow, Calcutta University, Gauhati.	8	98
	9	219
	11	494
	12	554
Suhrawardy, Hassan, M.D., F.R.C.S., M.R.A.S., Fellow of the Medical Society of London, District Medical Officer, Lullooah.	8	99
	9	220
	11	494
	12	555
Suhrawardy, Z. R. Zahid, M.A., B.L., Judge, Presidency Small Cause Court, and Fellow, Calcutta University, Calcutta.	8	99
	9	220
	10	287
	11	495
	12	555
Tarkabhushana, Mahamahopadhyaya Pramathanath, Professor of Mimamsa and Manu Sanskrit College, and Lecturer in Sanskrit, Calcutta University, Calcutta.	10	287
	11	495
Thomson, Dr. David, M.A., B.Sc., P.D., Offg. Inspector of Schools, Surma Valley and Hill Districts, Shillong, Assam.	8	99
	9	220
	11	496
Tipple, E. F., B.A., Professor of Mathematics, Thomason Civil Engineering College, Roorkee.	9	221
Turner, F. C., B.A., Principal, Dacca College, and Fellow, Calcutta University, Dacca.	8	100
	9	223
	10	287
	11	497
	12	555
Vachaspati, Siti Kantha, Lecturer in Hindu Law, Calcutta University, Calcutta.	8	101
	9	223
	10	288
	11	498
	12	555
Victoria, Sister Mary, C.J., S.B., Principal, Diocesan College for Girls, Calcutta	8	101
	9	223
	10	288
	11	498
	12	555

Name and designation of correspondent.	*Question answered.*	*Page.*
Vidyabhusan, Rajendranath, Lecturer in Sanskrit Literature and Rhetoric, Sanskrit College, and Lecturer in Sanskrit, Calcutta University, Calcutta.	8	102
	9	224
	10	288
	11	499
	12	555
Vidyabhusana, Mahamahopadhyaya Dr. Satis Chandra, M.A., Ph.D., M.R.A.S., F.A.S.B., Principal, Sanskrit College, and Fellow, Calcutta University, Calcutta.	8	102
	9	224
	10	288
	11	499
	12	555
Vredenburg, E., M.A., B ès-L, B.-ès-Sc., A.R.S.M., A.E.C.S, F.G.S., Superintendent, Geological Survey of India, and Lecturer in Geology, Calcutta University, Calcutta.	8	102
	10	288
	11	499
Waheed, Shams-ul-Ulama Abu Nasr, M.A., Principal, Dacca Madrassah, and Fellow, Calcutta University, Dacca.	8	102
	9	224
	11	499
	12	556
Walker, Dr. Gilbert T., C.S.I., M.A., F.R.S., Sc.D., Director-General of Observatories, Meteorological Department, Government of India, Simla.	8	102
	9	224
	10	289
Wathen, G. A., M.A., Principal, Khalsa College, Amritsar.	8	103
	9	225
	11	501
Watkins, Rev. Dr. C. H., M.A., D.Th., Principal, Carmichael College, Rangpur.	8	103
	11	501
	12	556
Webb, The Hon'ble Mr. C. M., I.C.S., Secretary to the Government of Burma, Educational Department, Rangoon.	11	501
	12	556
West, M. P., B.A., Officer on Deputation, Survey of Primary Education, Bengal, Calcutta.	8	103
	11	502
Whitehead, The Right Rev. H., M.A., D.D., Bishop of Madras, Madras.	9	225
	11	504
Williams, Rev. Garfield, M.A., Principal, St. Andrew's College, Gorakhpur.	8	104
	9	225
	10	289
	11	504
	12	556
Williams, L. F. Rushbrook, B.A., B.Litt., F.R.Hist.S., M.R.A.S., etc., Fellow of All Souls, Professor of Modern Indian History, University of Allahabad, Allahabad.	9	226
	10	289

Name and designation of correspondent.	*Question answered.*	*Page.*
Wordsworth, The Hon'ble Mr. W. C., M A., Offg. Director of Public Instruction, Bengal, and Fellow, Calcutta University, Calcutta.	8	104
	9	226
	10	290
	11	504
	12	556
Yusuf, Khan Sahib Maulvi Mohammad, M.A., Head Master, Anglo-Persian Department, Calcutta Madrassah, and Superintendent, Baker Madrassah Hostel, Calcutta.	11	505
Zachariah, K., B.A., Professor of History, Presidency College, Calcutta.	8	104
	9	227
	10	290

QUESTION 8.

Are you satisfied with the present conditions of admission to the University of Calcutta and, if not, what changes would you suggest ?

ANSWERS.

ABDURRAHMAN, Dr.

I am, generally speaking, satisfied with the present conditions of admission to the University of Calcutta.

(*a*) This admission at present is by means of the matriculation examination. Candidates for the examination are prepared by the schools recognised by the University. By the Act of 1904 the senate of the University frames rules for the recognition of schools and requires that every school applying for such recognition should be well-managed, well-housed, and have an efficient staff of teachers and sufficient funds to guarantee its financial stability, etc. The application is made to the syndicate and on receipt of it the syndicate first takes expert opinion from the inspectors and then either grants or refuses the application.

(i) The senate of the Calcutta University, besides the *ex-officio* members, consists of one hundred members, of whom twenty are elected and eighty nominated by the Chancellor, who is the Viceroy of India. This should in itself suffice to ensure that legislation concerning the recognition of schools is indirectly under the control of Government.

Again, the above Act had laid down that the senate was to prepare these regulations, including legislation about the recognition of schools, within a certain time, in default of which the Government of India (in their Education Department) were given the power to exercise that right. As there is no travail greater than the writing of laws the senate failed to prepare them and so, after all, it fell to Government to do the work. In this manner Government, and not the Senate of the Calcutta University, are the real framers of the rules for the recognition of schools.

(ii) The syndicate of the Calcutta University, which is the real deciding authority for accepting or rejecting applications asking for recognition of schools, has on its board the Director of Public Instruction, representatives of the senate, and representatives of the faculties. Almost all the members of the syndicate are educationists, experts or teachers. It means that when the syndicate approves a school for recognition there is no fear that the school is weak or second-rate.

(iii) And, last, but not least, the syndicate does not accept the claim of any school to be recognised unless an inspector has examined all the details and satisfied himself on all the points.

(*b*) (i) There has been an attempt to alternate the matriculation examination with the school final examination. This school leaving certificate final examination has already been instituted in some other provinces.

The school leaving certificate final examination is looked upon with great suspicion by all Indian educationists, leaders, and parents. The consensus of Indian opinion is that the real object of Government in recognising this examination is to place a great number of schools outside the power of the universities and to take them under its direct and immediate control with a view to check higher education in the country.

Government has also put a premium upon the school-leaving certificate final examination by giving it an artificial value as a test for Government posts.

ABDURRAHMAN, Dr.—*contd.*

It means that if the Calcutta University, like some of the weaker universities of other provinces, accepts the school leaving certificate final examination as a substitute or alternative for the matriculation examination it shall lose all control over, and touch with, a proportionately increasing number of students every year.

The demand that the universities should have little to do with school examinations amounts to a demand that the people should have little to do with their own education. The Education Department of Government wishes to oust the senates and syndicates of the universities from schools because schools are the entrance doors to the universities. Intelligent Indians, on the other hand, wish for the greater nationalisation of education.

(ii) It may be said that by instituting the school leaving certificate final examination and by allowing it to gradually supersede the matriculation examination Government only desire to offer a better alternative or substitute. If the idea of the Government is only to improve school education this is not the way to proceed to do it. The best way to secure that object would be to let the school-leaving certificate final examination, like the matriculation examination, be made a university examination.

The school-leaving certificate final examination course, as it has been introduced in the United Provinces, differs from the matriculation course in the following details:—

(A) Text-books in English have been abolished to avoid cramming. This experiment has already proved a failure. It ignores the fact which all teachers know that ability is co-related with memory, and does not appreciate the difficulties of Indian students who have to acquire the English language. It is impossible for any person to learn a foreign tongue without having recourse to unintelligent cramming for a long time in the beginning.

(B) It presents a greater field for choice of subjects. Though the subjects are what Americans call more "scattered" than co-related it is an advantage, and the senate of the Calcutta University would do well to follow the school leaving certificate final examination course in this respect.

(C) The written work of the student done for two years previous to the examination is taken into account and, as in France, the report books (*livres scolaires*) are also considered by the examiner.

There is nothing here which the Calcutta and other Indian universities cannot incorporate in their courses of study and system of education.

(iii) The analogy of the continental and Japanese systems does not hold good here. On the Continent or in Japan, where schools are directly controlled by the State, the universities are also similarly directly controlled by the State. The government of both is uniform.

But in Bengal the first consideration is, and should be, that in the final analysis the Calcutta University is dependent for its success upon the efficiency and integrity of the secondary schools. If the schools conform to the standards set by the University the University can co-operate with the secondary schools and prepare students after the requirements of college education. Otherwise, the secondary schools and the University will very soon lose touch with each other. The tendency all the world over is to produce perfect articulation between school and college education. In India we find certain persons who can in no sense be called friends of education asking for separation which, if permitted, is sure to cause the ruin of college education in this country.

(c) Whether Government institutes a school leaving certificate final examination or licenses the schools or makes the entrance into Government service and the universities dependent upon State examination or adopts some other way to gain control over the schools it will be pursuing a wrong, injurious, and futile policy. There is not even the consolation of an English precedent at the

ABDURRAHMAN, Dr.—*contd.*

back of these methods. The schools in Great Britain are independent of such control. No doubt, such systems prevail in a few countries on the continent, but you cannot apply a continental precedent to Bengal unless you can prove that the circumstances and conditions of both are the same. In Europe men are born free. In Europe the rulers and the ruled are of one class. In India they are not. Again, as I have said above, on the Continent the system is uniform. Both the universities and the schools are under State control.

If Government will force such an educational policy upon the Calcutta University it is bound sooner or later to be resented by Indians in general, and the people of Bengal in particular. It would unpopularise Government and involve it in difficulties which would be of its own creation.

The policy will also be futile because, if Government were to persist in it for long, Government schools will become unpopular and gradually, but surely, the people will leave Government schools and educate their children in national schools (however weak and bad they may be for a long time at first) which will be "unrecognised" but independent.

If Government is far-seeing enough and well-advised it will not dissociate itself from the representatives of the people. It is essential for the success of its own educational policy that it should always carry with itself a considerable body of public opinion.

(*d*) (i) An argument in favour of withdrawing the schools from the jurisdiction of the universities which has been used by some supporters of the measure is that the education of the masses is being neglected at the expense of university education. "Government," they say, "has spent money out of proportion on the universities and, unless it curtails this expenditure or stops at the figure which has already been reached, universal education will be impossible."

But the figures of expenditure published by the Government of India do not bear out this statement. The expenditure on education, very roughly speaking (I am writing from memory), is about 2 crores for primary, $1\frac{3}{4}$ crores for secondary and $1\frac{3}{4}$ crores for university education. The expenditure on school education is, thus, $3\frac{3}{4}$ crores and exceeds expenditure on university education by 2 crores.

(ii) Students of the history of education know that in all the countries of Europe education has filtered from the universities downward. Mr. Sharp in his quinquennial review on the progress of education for 1907-12 says:—"The common charge that the higher education of India has been built upon a slender foundation of popular education is one that might have been levelled against every country of Europe at some period of history. India is now passing through stages taken by other countries in their time."

(iii) The supply of education should, like every other supply, be regulated, to a reasonable extent, according to the demand for it. The demand for university education in India exceeds by far the demand for primary education. University education alone has been endowed with sufficient liberality by the people of India. University education produces the intelligent class of India and all that is modern in this country is the fruit of university education. Universities are the only connecting link between Indians and their alien rulers.

(iv) Government does not spend more than it ought to on university education in India. The complaint of Indians is that it does not spend what it ought to on the education of the masses.

(*e*) It is said that the matriculation examination is a poor test of merit and the school system in Bengal is defective and cannot be reformed unless Government takes the schools under its private control.

The first charge against the Calcutta University matriculation examination is that the standard of the examination is lower than in other Indian universities. The

proof offered to substantiate this charge is the high percentage of passes in the Calcutta University.

It means that, if the Allahabad or Punjab University has really a low standard of teaching but fails its examinees at an unprecedentedly larger scale every year, the standard of efficiency is rising, and if Bengal, after a century of English education and of thirty years' advance over the rest of India, records a gradual increase in the number of passes the teaching of the University is deteriorating.

The better results of the Calcutta University cannot be due to any unfair dealing or the mere caprice of examiners as all the question papers are passed by the moderators and answer books revised by the head examiner. What should be a matter for satisfaction is advanced as a proof of degeneration !

The real test by which the matriculation examination of the Calcutta University may reasonably be judged should be the proficiency of the average student, and not the stiffness of the questions or the abundance of failures. The average undergraduate of the Calcutta University compares favourably with the average undergraduate of any other Indian university. Again, if the results of education may be judged by the achievement of the sons of a university, Bengal, I am sure, possesses no less than 75 per cent of the men who are eminent in Western learning in this country.

(*f*) Some educationists have said that the standard of the matriculation examination of the Indian universities is lower than the standard of the English matriculation, the French *Baccalaureate*; or the German *Realgymnasium*, or *Oberrealschule* examination.

This may be urged as a ground for changing the present condition of admission to the University of Calcutta. It is true that the Indian undergraduate on his entering the University is younger than, and not the equal of, the English or French undergraduate, but we must also remember that an English graduate who obtains his M. A. degree at Oxford or Cambridge usually remains at the university only for three years, while an Indian graduate who receives his M. A. degree from the Calcutta University has to study as a regular student for six or seven years. An English student who takes the LL. B. degree from an English university studies for three years. An Indian student who takes the same degree from the Calcutta University requires seven years. The English student generally takes his examination by the compartment system and appears practically at one university examination during all his university time. The Indian student has to appear at least in two university examinations.

The result is that the average Indian M. A. is, in education or culture, in no sense inferior to the average Oxford school-man or Cambridge tripos-holder and, as far as the requirements of India are concerned, is decidedly better and more useful.

It will not be out of place to mention here that a number of Indian students sent to England are sometimes sent there more to gain a social position than intellectual education. English education, it is thought and not without some reason, eliminates to a slight degree the disadvantages suffered by Indians in life through being a ruled people.

ACHARYA, Dr. KEDARESWAR.

The present conditions of admission to the University by passing the matriculation test do not appear to qualify the student to follow the University training with facility. The matriculation standard should be raised to include at least the courses of study now prescribed for the intermediate examinations and university education should be restricted to what is required to obtain degrees.

A ten-years' course in the schools may be devised to enable a student to qualify himself for entrance to the University and the present arrangement of allotting two

years more for the I.Sc. and the I.A. may be done away with. In the first seven years English should be taught as a second language, other subjects being taught through the medium of the vernaculars; in the next three years English should be the medium of instruction.

This arrangement while doing away with an intermediate examination will also save time by two years. If the syllabus of the matriculation is thus raised a very large body of students of average ability will be fairly well-grounded to be able to learn applied sciences and technology, instead of being stranded in the world as now, with a gloomy future before them. It is a sorrowful sight to see young men after passing the matriculation going about to secure recommendations for a petty clerkship or some such post. They should be eligible for all the provincial civil services; a special test of fitness may be introduced for the different kinds of posts. There would be no bar to students after passing the matriculation to read for degrees in law, medicine, and engineering. As a matter of fact, I.A. and I.Sc. students do now enter the medical and engineering colleges. University education should not take up more than four years; two being for the first degree and two for post-graduate studies.

AHMED, Maulvi KHABIRUDDIN.

I am not satisfied with the present conditions of admission to the University. As matters stand now little notice is taken of the moral and physical fitness of the candidate to enter the University. The character certificate given by the head ma ter is a mere matter of form and is found to be of little worth. As regards the physique of the candidates it is not infrequently found that many students of poor health completely break down under the strain of university studies. I would, therefore, suggest the following changes :—

(*a*) The character certificate given by the head master should be in the form of a solemn declaration.

(*b*) Arrangements should be made for the medical examination of the candidates for admission to the University.

AHMED, TASLIMUDDIN, Khan Bahadur.

The matriculation certificate, without further examination, should entitle the holder to admission to the University.

My suggestions are :—

(*a*) At least one-third of the seats should be reserved for Muhammadans in the colleges and half in the schools. If these are not filled up within a reasonable time they should be thrown open to others, Muhammadans as well as Hindus.

(*b*) After the completion of fifteen years of age a student should be allowed to appear for the matriculation examination.

AHMED, Maulvi TASSADDUQ.

I am not at all satisfied with the present conditions of admission to the University. The matriculation standard has been lowered unconscionably. The school course has been, as it were, tacked on to the University course in a most ill-fitting manner. One does not naturally lead to the other. The general training that a boy receives at school is not sufficient equipment for him to reap the full benefit of a university education. In fact, in the beginning of his university career, and even for some time afterwards, he has no other alternative than to burden his memory with things which he cannot fully grasp.

Again, too many people enter the University for an education which is ill-suited for the battle of life. At the time of their entrance into the University they have no clear idea

AHMED, Maulvi TASSADDUQ—*contd.*——AHSANULLAH, Khan Bahadur Maulvi.

as to the career they would follow after leaving it, and when they do leave the University they very often find themselves face to face with the grim spectacle of all doors shut against them. To make matters worse, owing to our existing social system, many would often be encumbered with a family of wife and children by the time they leave the University. Misery and discontentment follow in the wake, and all the rosy hopes of their student life vanish under the bitter struggle for existence. This picture is not at all overdrawn.

To remedy these evils I would make my school (up to the present matriculation stage) the ground for general culture of all students, and would provide for such subjects in the curriculum as would contribute towards that end. I would make it obligatory upon all to go through this course of studies fully. I would, however, give this course a scientific bias, for obvious reasons. I would next take out the two years that are now spent at the University for the intermediate course and add them on to the school course. During these two years I would provide for specialisation. Thus, at the end of the school course it will be open to the boy, either to enter into the University for a liberal education, or to further specialise in one of the bread-earning professions like engineering, medicine, agriculture, commercial science, etc. These groups of knowledge may form part of the University system, but they will certainly form distinct groups, inasmuch as they will serve as means to an end, whereas a university career will be for the pursuit of knowledge for the sake of knowledge and advancement of learning.

AHSANULLAH, Khan Bahadur Maulvi.

The conditions which are laid down in the regulations for admission of high schools to the University worked well enough when the number of schools was comparatively small. With a steady expansion of higher education, and the development of modern educational ideas, a change in the conditions which regulate such admission is considered indispensable. Schools are springing up like mushrooms and it is time that a somewhat higher standard should be demanded from them before recognition. The following changes are suggested :—

Management.—There is a large number of proprietary institutions in and outside Calcutta that are run purely on speculative principles. The voice of the proprietor is supreme in the management of such schools. The managing committee is a nonentity and is solely guided by the whims and caprices of the proprietor. Swings are divided among themselves, often at the cost of the schools. Teachers are appointed and discharged as it suits the convenience of the proprietors. Men of mediocre qualifications on a poor remuneration are often entertained. As an inevitable result indiscipline and disorder become the rule. What is needed is that the entire management should be vested in the committee, on which different interests and classes should be represented. The school buildings and the land on which they stand should be donated free of charge to a committee, the number of whose members should not ordinarily exceed ten, save with the previous permission of the University. The proprietors should not, as a rule, be represented by more than one member on the committee.

Staff.—The headmaster should invariably be a man of ripe experience and sound scholarship. He should be a graduate of an Indian university. He should be assisted by at least two more graduates on the staff. The minimum number of teachers should be, besides the headmaster, one for each class or section. In schools of over 300 pupils there should be a whole-time clerk in addition to the teaching staff. One of the senior teachers should be placed in charge of the school library and another in charge of sports and games. There should be one English teacher for each class or section that teaches English. None should be accepted as an English teacher whose qualifications are less than the matriculation. There should not be more than two matriculates on the staff of any high school and no matriculate teacher should have less than five years' teaching expe-

AHSANULLAH, Khan Bahadur Maulvi—*contd.*—ALI, The Hon'ble Mr. ALTAF.

rience. The minimum qualification of a pandit should be vernacular mastership. The head pandit should hold a Sanskrit title and the head maulvi the final certificate of a senior madrassah. There should be an Anglo-Sanskrit and an Anglo-Persian teacher in addition to the head pandit and the maulvi. An extra teacher should be appointed for the scientific teaching of Bengali.

The monthly pay of the headmaster should be Rs. 100. The minimum pay of any teacher of English should be Rs. 20 and of vernacular Rs 15. The average pay of the staff should not be less than Rs. 30 a month.

Buildings.—The buildings should be neat and durable and have a *pucca* plinth. A minimum of 10 sq. ft. per pupil should be demanded. A minimum door and window space of one quarter of the floor area should be insisted upon. The partition walls should be up to the height of the ceiling. Each class should be provided with a chair, a table, a black-board and as many benches as there are multiples of five pupils. Each bench should have either a desk or a back.

Library.—The library should be located in a separate room and be always accessible to the teacher and the taught. Some educational journals should be subscribed for. There should be an adequate provision of books of stories, of reference, and on teaching. The books should be arranged in glass cases, and must always be on view. A monthly provision for additional books should be insisted upon. Loan books should be maintained separately for teachers and boys Portraits of Their Imperial Majesties, a clock, a globe, a set of wall maps, a few relief maps, and some picture charts should always be amongst the equipments of the library.

Discipline.—Inter-school rules should be scrupulously observed and a high standard of discipline insisted upon. A punishment register should be kept, among other records.

Residence of pupils.—A list should be kept of boys who do not live with their parents and arrangements should be made for the proper residence of these boys. Superintendents of hostels must always be selected from among the senior teachers of the school. They must always reside in a separate room of the hostel. The management of the hostel must invariably be vested in the executive committee of the school.

Fee rates.—The fee rates should not be below Rs 2-8 in the upper classes and Re. 1 in the lower ones. The number of free studentships should be limited to 8 per cent of the enrolment. The scale of fees must, in no case, be lower than that in the neighbouring schools. Special concessions may be allowed to poor but promising Muhammadan boys.

Size of classes.—The number of pupils should not exceed 45 in any of the six higher, and 30 in any of the lower, classes.

Finance.—No school should be recommended for recognition unless its financial stability has been sufficiently assured. The receipts from fees and other sources should be enough to cover the salary of teachers and the wages of servants.

Physical exercise.—Each school must provide at least two playgrounds, one for the older, and the other for the younger, section of the pupils. The land must always be the property of the school.

ALI, The Hon'ble Mr. ALTAF.

Not quite; the present matriculation standard is very low. The consequence is that the next examination, *i.e.*, the I.A. and I.Sc., proves a stumbling-block to them. Statistics show that there is a sharp decline in the number of students after matriculation. It may be argued that this decline is due to poverty. It may, to some extent, be due to poverty, I admit, but, in my opinion, the ease with which an average student gets through his matriculation has a deteriorating effect on the student and makes him take the I.A. or the I.Sc. easy. I think the standard of the matriculation should be raised to the level of the Cambridge senior.

ALI, SAIYAD MUHSIN—ALI, Nawab NASIRUL MAMALEK, MIRZA SHUJAAT, Khan Bahadur —ALUM, Sahebzadah MAHOMED SULTAN—ANNANDALE, DR. N.—ARCHBOLD, W. A. J.—BANERJEA, J. R.

ALI, SAIYAD MUHSIN.

No; any college or school having no adequate representation of the several communities on the staff and the committee should not be affiliated.

ALI, Nawab NASIRUL MAMALEK, MIRZA SHUJAAT, Khan Bahadur.

Yes; but there seems to be more demand for admission than can be supplied by colleges in Calcutta. The desirable remedy is to make better arrangements to remove this complaint. This is more serious so far as the Moslems are concerned and requires immediate arrangements

ALUM, Sahebzadah MAHOMED SULTAN.

At present many students are denied admission to the college for want of accommodation. This is pitiable. Such arrangements should be made that all who desire admission may be admitted, especially Mussalmans, who have now awakened and want to acquire higher education; they will suffer to a great extent if admission is refused to them, and Government is morally responsible to make such arrangements so that the Mussalman can return an equal number of graduates with the Hindu.

ANNANDALE, DR. N.

The imperfect comprehension of English possessed by a large proportion of Calcutta students proves that they have been admitted to the University before they were in a position to profit from lectures delivered in that language. I would, therefore, insist upon all students passing a severe *viva voce* examination in English, *not* in English literature, on matriculation. I discuss this point further in connection with my answer to question 11.

ARCHBOLD, W. A. J.

No; I am not. The question is, of course, intimately connected with that of schools. It is no good saying when a half-starved man comes before us that he ought to be better fed unless we can secure that he is so. And unless the Commission can provide in some way better school teaching it seems idle to criticise its results. It has been done before; we are always doing it. That boys do not know enough English history, or any other history, or geography, is universally recognised. I have asked students the most elementary questions in these subjects without result. But, no doubt, others will develope this side of the enquiry.

BANERJEA, J. R.

No; students come to colleges with an imperfect knowledge of English. I would suggest that the course in English for the matriculation examination be so framed that pupils in schools will minutely notice the force of words and phrases and carefully study one or two books, as well as English grammar. The present system of demanding minute knowledge, not even of a single book, has been responsible for the poor knowledge of English which is noticeable now in many students.

BANERJEA, J. R.—*contd.*—BANERJEA, Dr. PRAMATHANATH—BANERJEE, Sir GOOROO DASS.

I would also suggest that some of the papers, *e.g.*, the compulsory paper in mathematics for the matriculation examination, be a little more difficult than it is at present. If we compare this paper, as set now, with mathematics papers set for the entrance examination under the old regulations, we find that it is a very easy paper indeed. While it is true that there are some who are fitted for a college career, and turn out brilliant students of other subjects without being strong in mathematics, it is also true that for a college career the test ought not to be exceedingly easy, for that lowers the status of our matriculates in comparison with that of the matriculates of other universities.

BANERJEA, Dr. PRAMATHANATH.

I am satisfied with the present conditions of admission to the University of Calcutta. But I would modify the course of studies for the matriculation examination so as to ensure that undergraduates may possess some knowledge of the elements of the most important subjects of study. In particular, I would make history and geography compulsory subjects for this examination, and I would consider it desirable to give matriculation candidates instruction in the elements of physical science. I am strongly opposed to the idea of starting a school final examination under the control of a Government department.

BANERJEE, Sir GOOROO DASS.

I am not quite satisfied with the present conditions of admission to the University of Calcutta, and I have some changes to suggest. But, before dealing with the changes I wish to suggest, I deem it desirable at the outset to oppose a change which has been suggested in influential quarters, namely, that the matriculation examination, which at present serves as a double test, that is, a test of completion of school education, and also as a test of fitness for admission to the University, should be abolished, and two examinations substituted in its place, one a school final examination to serve as a test of completion of school education, to be conducted by the Government department of public instruction, and the other a university entrance examination to serve as a test of fitness for admission to the University, to be conducted either by the University or by its affiliated colleges. The main reasons assigned in favour of this change are that the matriculation examination has grown too large to be conducted with efficiency, and that it has failed to serve the double purpose it is now made to serve. The first-mentioned argument is answered by the fact that the establishment of universities at Patna and Dacca will reduce the bulk of the Calcutta University matriculation examination within proper limits; and the second argument will be sufficiently met if it can be shown, as I think it can, that by suitable changes the matriculation examination may well be made to serve its present double purpose, and thus a duplication of examinations may be avoided to the no small saving of time, energy, and expense. I have dealt with this topic at some length at pages 31 to 43 of my little book, entitled *The Education Problem in India*, to which I would beg leave to refer, instead of repeating what I have said there. And I now proceed to state the changes I would suggest in the present conditions of admission to the University, which will include changes in the matriculation examination scheme.

The following are the changes I would suggest in the conditions of admission to the University:—

(*a*) The rule that sixteen years should be the minimum age for admission to the matriculation examination should be abolished. This rule is not only unnecessary, but is mischievous. It is unnecessary because a properly organised and properly conducted matriculation examination will, on the one hand, be a sufficient natural safeguard against immature youths entering the University, and will, on the other hand, prevent the hardship of deserving youths being needlessly kept back; and it is mischievous because it often gives rise to cases throwing

BANERJEE, Sir GOOROO DASS—*contd.*—BANERJEE, JAYGOPAL.

on the University the trouble of entering into delicate investigations as to age, and of sometimes cancelling the results of candidates provisionally admitted to the examination after they have passed, if in the end the investigation as to age proves adverse to them.

(*b*) The rules allowing a multiplicity of options in the selection of subjects should be abolished, and the subjects of examination should be :—

(i) English prose and poetry, text-books.
(ii) The candidate's vernacular, with an elementary knowledge of its kindred classical language.
(iii) Mathematics, including arithmetic (the whole), algebra up to quadratic equations, and the progressions, and plane geometry up to properties of similar triangles.
(iv) Elementary histories of England and India and general geography.
(v) Elements of physics and chemistry.

And there shall be two papers in each subject.

The importance of the first four subjects is admitted by all. That of the fifth subject also is admitted by all, but some are of opinion that our schools are mostly unfit to teach it properly for want of resources. I think if a year's time is allowed, and a moderate syllabus is begun with, our schools will be able to make a beginning.

The above scheme of subjects, with syllabuses modest and embracing only the broad points of each subject, will afford a common basis of general culture for all students, whatever subsequent careers they may choose. An agriculturist will be none the worse for the little classics he may learn, nor a literary scholar for his little physics and chemistry.

(*c*) English should be taught with the help of well-selected pieces in prose and verse, pieces that are of cosmopolitan interest ; and English grammar should be regularly taught, and not left to be picked up from copious reading.

(*d*) Subjects other than English should be allowed to be taught, learnt, and examined through the medium of the student's vernacular.

With the foregoing modifications the existing matriculation examination will serve well its double purpose of being a test of completion of the school course, and a test of fitness for commencing the college course. This matriculation course will be a broad basis of general culture for all students : and, though a little too high for low intelligence and a little too low for high intelligence, and, though embracing subjects some of which may not be necessary for all after-careers, it will not impose any needless burden upon any class of students, while it will relieve the teaching agency, that is, our schools, from the undue burden of adjusting their staff and time-table to suit the multiplicity of distracting, and not always coherent, combinations of subjects, which students choose not so much by reason of their aptitudes, as by reason of the large percentage of passes which particular combinations secure.

A broad general and workable scheme is, I submit, better than a nicely adjusted, but complicated, one. For broad, and not fine, points wear well, and complicated machinery is often liable to get out of gear.

BANERJEE, JAYGOPAL.

The matriculation test, on the whole, serves this purpose fairly well, but the knowledge in English of those who propose to pursue a literary course in their university career is in one respect, inadequate [*vide* my answer to question 11]. In practice, some of the colleges at present admit only those "freshmen" who secure a first division in their matriculation, indicating in effect thereby a distrust in the value of the matriculation test. If, however, arrangements for vocational training in and from the intermediate stage are made by the University a natural outlet will be created for those who, for want of anything better, are compelled to go in for literary courses and swamp the intermediate classes.

BANERJEE, Rai KUMUDINI KANTA, Bahadur—BANERJEE, M. N.—BANERJEE, MURALY DHAR—BANERJEE, RAVANESWAR.

BANERJEE, Rai KUMUDINI KANTA, Bahadur.

No; the standard of matriculation should be considerably raised. A sound general education is absolutely essential for university study. The present standard for admission is too low. I would raise the standard almost to that of the present intermediate standard in many subjects. The matriculate should have acquired the power of accurate expression and orderly thought. Besides these intellectual qualifications he should have good discipline and other moral traits, such as diligence, attention, regularity, and self-control. A higher standard of education in the secondary stage would enable many of the students to enter the world much better equipped than under the present system. They may not enter the University at all, but join any calling or profession.

BANERJEE, M. N.

The I. Sc. should be the preliminary qualification for admission to the medical colleges, and the course of study for the M. B. examination should be reduced to five years as in the English universities. Chemistry, physics, and biology should be taught with a special view to their application to medicine. For instance, parasitology, which is so very useful in medicine, should be included, as it is not at present, in the syllabus of biology. The examinations and the curricula should be arranged as in the English universities, modified, if necessary, to suit local conditions. The first M. B. examination should be passed not less than two and a half years after admission and eighteen months after the preliminary scientific examination. The second M. B. examination should be passed not less than two and a half years after passing the first M. B. examination. Hospital practice should commence one year after passing the preliminary scientific examination, and the first six months should be spent in learning the methods of clinical instruction, minor surgery, and principles of aseptic dressing.

BANERJEE, MURALY DHAR.

The matriculation course should include elementary science, physiography, and geography as a means of general culture and the matriculation examination should be a test not so much of memory and information, as of the training the higher powers have received.

BANERJEE, RAVANESWAR.

The present conditions of admission do not appear to be satisfactory. The following changes are suggested :—

(*a*) The knowledge of English is too poor to enable the majority of the college students to follow the lectures. A change in the English course, as well as a change in the manner of setting questions for the matriculation examination, is necessary. As regards the course I would propose that a selection from good standard authors be made from time to time, and the history of England be included as a compulsory course. Questions carrying half the total marks for the whole subject should be given from the text-book, the other half being equally distributed among grammar, composition, and translation.

(*b*) The age restriction should be removed, or the limit should be reduced, by at least one year. I have known boys to compete in previous entrance examinations at the age of fourteen, and meritorious boys to deteriorate when detained in the matriculation class, for shortness of age. Meritorious boys do not naturally find much interest in going over the beaten track.

(c) The "accrediting" system may be gradually introduced, the head masters being held responsible for the quality of the students they allow to enter college. This will relieve the University to a certain extent of the responsibility of holding and conducting the matriculation examination; the responsibility is growing heavier and heavier with the number of candidates, whose name is legion already, and which is increasing every year by leaps and bounds as it were.

BANERJEE, SASI SEKHAR.

The conditions of admission to the University are simple. They consist in the production of the registrar's certificate that the candidate has passed the matriculation examination of the University and that he presents himself for admission not more than three weeks after the opening of a college in the academical year. Candidates from other universities are also admitted to the Calcutta University under certain conditions. This question, however, can be discussed from two points of view. Firstly, whether the matriculation examination is a sufficient test for entrance to the University and, secondly, whether admission is granted under proper safeguards. As regards the first I have stated elsewhere that some science subjects should be introduced at the matriculation stage. Students who take science, on joining the University, generally do it in the belief that it is a pleasurable study. But their interest lasts only so long as they confine their attention to the class lectures only. Such students should receive some elementary training in science at school and, to a certain extent, get accustomed to the method and the precision required in its treatment. As regards the second I think admission into a college should be regulated under proper safeguards. Some organisation should exist for guiding students in the selection of combinations. Many students select combinations without any reference to their capacity or any particular aim. As a matter of course, applications are received soon after the commencement of lectures for a change of combination. Sometimes even the I. Sc. students seek a change for the I. A. subjects. All this goes to show that students enter the University without a definite object except that of getting through the University examination and thereby increasing their market value. Sometimes the students are heard to say that they were forced to offer particular combinations at the request of their guardians and friends.

While some sort of freedom should be given to students to choose their own combinations they should be placed under the guidance of responsible persons in their selection of them. Head masters of schools from which the students matriculate or the authorities of the college at which admission is taken are, in my opinion, the best advisers in this matter.

At present there is no arrangement for examining the health of a student at the time of his admission and for regulating his physical training. Some advance may be made in this direction.

BANERJEE, SUDHANSUKUMAR.

The present conditions of admission into the University of Calcutta after the matriculation examination are quite satisfactory, and any change would be detrimental to the educational progress of Bengal. It is only natural that the University should be the decisive body to admit the seekers after knowledge into its portals. The school final system, the only other alternative system and an entirely artificial and officialised system, which has been introduced in some provinces like Madras, has already given sufficient indication by hampering the educational progress of those provinces. It need hardly be said that this system has been rightly condemned by the public opinion of India.

BANERJEE, UPENDRA NATH—BANERJI, MANMATHANATH—BANERJI, The Hon'ble Justice Sir PRAMADA CHARAN—BANERJI, UMACHARAN.

BANERJEE, UPENDRA NATH.

The age restriction of sixteen years for matriculation students seems to be rather hard and arbitrary. A man must not be over twenty-five when he enters Government service; he may have during his college career serious difficulties to prevent him from passing his university examinations at the expected, or fixed, time of age. As far as age is concerned some margin should, on this account, be always left in his favour, to make allowance for accidents and misfortunes. I see no reason why a boy should not be allowed to pass his matriculation if he is sufficiently able to do it at fifteen or should be unnecessarily detained and thereby discouraged for the crime of being under sixteen. The reason of this argument, therefore, is impossible for me to understand. Fifteen may, therefore, reasonably be substituted for sixteen as far as this age question is concerned.

BANERJI, MANMATHANATH.

The standard at present attained by students before they enter the University is far from satisfactory. It is imperatively necessary that histories of India and England, geography, and elementary sciences should be made compulsory in the matriculation examination. There should be no choice of subjects and the compulsory standard of English, mathematics, and the second language should be raised. I have indicated my scheme in connection with my reply to question 1.

BANERJI, The Hon'ble Justice Sir PRAMADA CHARAN.

I do not see what other conditions than those which now exist for admission to the University of Calcutta can be laid down. The present conditions seem to be satisfactory.

BANERJI, UMACHARAN.

I am not quite satisfied with the present conditions of admission to the University of Calcutta. I would suggest the following changes:—

(*a*) The standard of teaching and examination should be appreciably raised in English and slightly in mathematics.

(*b*) The teaching and examination of the vernacular language and literature should be systematically adopted.

(*c*) The teaching of some science subject should be made compulsory.

(*d*) The minimum pass marks and the minimum aggregate of marks should be somewhat raised.

A rough outline of the matriculation course is given below:—

(i) *Compulsory subjects*:—

(*a*) English—two papers.

(*b*) One classical language—two papers.

(*c*) Vernacular literature—two papers.

(*d*) Mathematics—one paper.

(*e*) Physics or chemistry—one paper.

(ii) *Optional subject*:—

History or geography or hygiene or agriculture—1 paper.

The existing matriculation course, which usually covers ten years' study, may be extended by one year's work.

BARROW, J. R.

The opinion is very generally held by members of the Presidency College staff that the matriculation examination is too easy; that some knowledge of history, geography, and elementary science should be insisted upon; and that there are too many alternative questions.

A fairly wide choice of questions is desirable in the examination of advanced students in order that they may have a chance of expressing their ideas on points that particularly interest them. But if the questions set at the matriculation examination are not in themselves unreasonably difficult candidates may fairly be expected to answer whatever they are asked.

I agree with the opinion I have quoted that the examination, as conducted, is too easy. Success in the examination does not mean what it ought to mean, that the matriculate is fit to begin the course of study laid down by the University. Yet the course of study for the intermediate examination would not be unreasonably difficult if boys had been well-grounded at school. They are not well-grounded and, above all, they have an utterly inadequate grasp of English, the language through which they are taught.

All this means that the schools, as a whole, do not do their work, and the first thing to be done is to improve them. But, whether the schools do their work or not, the function of the matriculation test is to eliminate those who are not fit to enter a college. And if it performed that function with vigour it is certain that the schools, even though the difficulties under which they labour were unremoved, would turn out better candidates.

Why the matriculation examiners are so unduly lenient is a question not easy to answer. Probably the chief reason is their dislike of causing pain. I may again refer here to the strange fact that the number of passes in the first division is greater than that in the second, and vastly greater than that in the third. This appears to me one indication of a general tendency to swamp the few superior students in a mass of the mediocre.

My first objection to the matriculation test, as now conducted, is, therefore, that it does not eliminate the unfit. The next point to notice is that many of those who pass find the greatest difficulty in obtaining "seats" in colleges; some find it impossible. This is so in spite of the fact that a fair number of matriculates make no attempt to enter colleges, having taken the examination merely as a passport to clerical or other employment. Colleges, of course, in filling their vacancies prefer, as a rule, first division candidates to second, and second to third; though the distinction loses much of its value when a majority of the candidates are placed in the first division. We have then the following facts to deal with:—

(*a*) The examination does not fulfil its proper function, the elimination of the unfit.
(*b*) It performs, to some extent, another function for which it was not intended: it is a passport to employment of an inferior sort.
(*c*) Of those who pass and wish to enter colleges some are unable to secure places.
(*d*) Those who secure places find themselves in overcrowded classes.

I think that, instead of one examination performing (or failing to perform) two functions it would be better to have two separate examinations—a school certificate examination, under the control of the department of public instruction, and college entrance examinations, managed by each college itself. I should hope that inspectors of schools (who would, presumably, manage the certificate examination) would succeed in establishing and maintaining a reasonably high and uniform standard so as to give the certificate a real value in the market. This in itself should do much to improve the activities of the schools. The University inspectors ought, in my opinion, to lay down for each college a maximum number to be accepted for instruction in each subject taught. In doing so they would consider both the buildings and the staff; and the numerical proportion of students to teachers should be very much smaller than it is at present, such, in fact, as to permit of real individual tuition. A competitive element would thus be introduced into the examination, and should help still further to stimulate the schools.

BASU, SATYENDRA NATH—Bengal Landholders' Association, Calcutta—Bengal National Chamber of Commerce, Calcutta—Bethune College Calcutta.

BASU, SATYENDRA NATH.

Better knowledge of English is desirable for admission to the University. The standard set up by the University does not seem to be insufficient, but it is not probably worked up to in the spirit in which it was conceived. The teaching of English, possibly of other subjects, is mechanical. Seldom, if ever, is any attempt made to make students assimilate the spirit of the language and its idioms.

Instruction should be so arranged as to enable students to acquire more general knowledge. Specialisation should not commence before they step into the University.

Bengal Landholders' Association, Calcutta.

No; we would abolish the present matriculation and make the I. A. or I. Sc. the standard for admission.

Secondary schools should give a training complete in itself—winding up with an examination which may be called the school final. There should then be a two-year course—in continuation classes—bifurcated for arts and science—something in the nature of the I. A. and I. Sc.

The University would have a three-year course only for the B. A. or B. Sc.—B. L. or M. B. degrees. Master degrees may be provided for after another year. Doctorate degrees should be granted for approved work or based upon thesis written in the Bengali language. The latter suggestion is made that by it the development of the language for scientific purposes may be helped.

Bengal National Chamber of Commerce, Calcutta.

Under the rules in force the student, after passing the matriculation examination, finds it extremely difficult to secure admission for higher education into several special branches of training, such as medicine, engineering, etc. The subjects of study and the number of colleges are both limited. An improvement in the situation is an imperative necessity. The subjects of training should be increased on the lines mentioned herebefore and the number of colleges should also be multiplied. Meanwhile, the rules of admission should be relaxed enabling all who desire to have higher training in different branches to have facilities for such training.

Bethune College, Calcutta.

Sen, P. N.
Mukerjee, B. G.
Bhattacharya, K. C.
Sen, P. C.
Chowdhury, B. K.
Chatterjee, K. B.
Roy, D. N.

The present matriculation test is not quite satisfactory. For matriculation, English, mathematics, history (English and Indian), geography, a classical language, and vernacular composition should be obligatory subjects and the tests for English and mathematics should be stiffer than at present.

Janau, Miss A. L.

No; not at all. Students entering college are much less mature than they should be and are, in consequence, unable to profit by college life as they should. A college career comes but once in a life and the student should be mature enough to take full advantage.

No student is, I consider, mature enough for college work (as it should be) under eighteen or nineteen, and I should raise the entrance age to this figure. The pleas against this usually are :—

(*a*) Why should not a clever student enter earlier ? The 'clever' student is often a forced product, a hot-house plant with a physique that requires attention.

Bethune College, Calcutta—*contd.*—BHADURI, JYOTIBHUSHAN, DEY, B. B., and DUTTA, BIDHUBHUSAN—BHANDARKAR, Sir R. G.—BHATTACHARYA, JOGENDRANATH.

If not, then he (or she) will do even better at eighteen with his (or her) cleverness than at an earlier age and he (or she) can use any intervening period in preparing himself (or herself) further.

(*f*) How can a man become an M. A. in time to enter Government service before or at twenty-five years of age if you raise the matriculation age? I maintain that this consideration has no place in dealing with university matters and that the University should be freed from being a preparation ground for Government service or, at any rate, this age limit be removed. It serves no good purpose, but rather the reverse.

Besides raising the age of the matriculant the standard of the papers should be raised; the type of paper altered (to discountenance cramming) and certain subjects not at present included as compulsory *i.e.*, geography and Indian history, should be made so. Moreover, a greater variety of optionals should be introduced if the matriculation is to be the entrance to a wider selection of degrees. Hygiene, physiology, and first-aid might certainly be included and indeed (as in Bombay) be made compulsory.

BHADURI, JYOTIBHUSHAN, DEY, B. B., and DUTTA, BIDHUBHUSAN.

University education will fail to attain its purpose if it is not backed up by a good system of secondary education. No expenses should be spared for the improvement of the high schools, which should be a *sine qua non* of university reform. "What is put into the schools of a country comes out in the manhood of the nation afterwards."

Better staff should be recruited, especially for teaching the lower classes of the schools. There ought to be a progressive scale of pay for all teachers and the minimum pay should be such as to ensure a respectable mode of living. If more money be not available the tendency of the inspecting departments to spend more money on buildings than on the staff may be discouraged and the expenses incidental to inspection itself may be cut down so that the money thus saved may be used for the improvement of the pay and prospects of the teachers.

BHANDARKAR, Sir R. G.

The University of Bombay has recently adopted a scheme as to the conditions of admission to it which is meant to be a compromise between the views held by Government and the University. Our conditions of admission have been varying, since I was head master of high schools (1864-68), in a wrong direction. The old requirements ensured a better knowledge of English than the present ones.

BHATTACHARYA, JOGENDRANATH.

The present condition of admission into the University is anything but satisfactory. The large percentage of passes at the matriculation, coupled with the limited number of seats in colleges, has made the situation more acute. In many colleges, especially in those under Government, the admissions are regulated by certain principles, the foremost of which is the preference for pupils who had passed in the first division, but this, too, is of no avail owing to the large number of first-grade passed students. The rest crowd into colleges under private management. It is doubtful whether, in the latter institutions, there is an adequate supply of teachers commensurate in quality and quantity with their ever-increasing numbers. The result is that efficiency is impaired. This is a serious state of things which calls for immediate remedy. To meet the situation the following two things are possible:—

(*a*) To set up the requisite number of colleges for the accommodation of all the passed candidates which, I think, would not be possible under the present conditions.

(*b*) To raise the status of the zilla schools, to which intermediate classes may be attached, where the pupils will be taught by lecturers, who will be under the control of the head master.

This will remove the congestion to a great extent as there are sufficient numbers of efficient schools which can take up the management with advantage.

BHATTACHARYA, KRISHNACHANDRA.

No; for matriculation, English, mathematics, history (English and Indian), geography, a classical language, and a vernacular should be made compulsory subjects. The standard in English and mathematics should be higher than at present. If, further, the vernacular is recognised as the medium of instruction and examination (as suggested in my answer to question 11), the standard may be raised all round.

A different curriculum and standard for those who do not want to enter the University may be desirable if arrangements could be made for higher technical and commercial education and if a definite career in life could be opened up for such students. It is a matter that does not depend upon the University alone and so, for the present, the question of such a bifurcation of studies does not arise.

BHATTACHARYA, NIBARANCHANDRA.

At present, the conditions of admission into the University are not satisfactory. I suggest that after the matriculation the colleges should make a preliminary selection and should then examine the selected candidates in the following manner:—

(*a*) All candidates should attend a lecture delivered by a professor and write lecture notes. The lecture notes should be examined, candidates who fail to write satisfactory notes should be rejected, as they are not likely to profit by a course of lectures.

(*b*) Candidates for science classes should be asked to make a drawing of some simple apparatus. Those that fail in this should be rejected, as lacking power of observation.

BHATTACHARYYA, BAIKUNTHA NATH.

No; the standard of the matriculation examination should be raised.

(*a*) There should be a fixed course in English for the matriculation examination. It should be taught in secondary schools from the lowest class in conversational method. The matriculation test in English should be both oral and written. The oral portion of the examination may be left with the departmental inspecting agency.

(*b*) History (including the history of England), geography, and elementary science should be included in the compulsory course of the matriculation examination, classics and mechanics being optional.

BHATTACHARYYA, HARIDAS.

The present conditions of admission to the University are unsatisfactory from many points of view.

(*a*) The University has no moral right to impose an *age restriction* upon its matriculates. It *should be removed at once*. The sixteen-year rule keeps the young men of Bengal students at an age when the greatest discoveries have been made in other countries.

(*b*) The number of candidates seeking admission is unduly large. The remedy lies not in making examination strict, but in multiplying colleges and universities and in making technical education popular. The number is likely to increase as education becomes more general and schools and colleges multiply and better teachers are available.

(*c*) Students are removed from wholesome home atmosphere and healthy country life. To relieve academic congestion in the cities and towns *facilities should be given for study up to the intermediate course nearer home* in healthy districts.

(*d*) *The matriculation course should be remodelled* so as to provide an all-round general training, and optional subjects should be as few as possible up to the intermediate standard. *Specialisation should not begin before the B. A. and B. Sc. stages.*

(*e*) The standard of examination is low in one or two subjects. There is, however, no validity in the criticism that it is ridiculously low all round, and there is absolutely no justification for "viewing with alarm the rapid increase in the percentage of passes at the matriculation examination" for the schools are now much better staffed than before.

(*f*) The present system, according to which some colleges absorb the best students of the year, is radically unsound. The University should receive applications from all intending candidates for admission into the University and allot them to the various colleges, at least to those of Calcutta. In allotting students the following things should be considered:—

(i) The school from which the applicant matriculated.
(ii) The desire of the applicant to join a particular institution.
(iii) The division in which he has passed, and the stipend he has obtained.
(iv) The college in which his relatives received their education.
(v) The probable residence of the applicant.
(vi) The capacity of the college to accommodate and teach properly.
(vii) Religion of the applicant.

(*g*) *A fixed percentage of poor students should be taught free in every college.*

BHATTACHARYYA, Mahamahopadhyaya KALIPRASANNA.

The present conditions seem to be satisfactory.

BHOWAL, GOVINDA CHANDRA.

Yes; the present conditions are satisfactory.

BISS, E. E.

The main condition of admission to the University of Calcutta is the passing of the matriculation examination. The reform of this examination has recently been under the consideration of the faculties of arts and science and the proposals put forward appear to me to be a great advance on the present requirements. Candidates are ordinarily admitted to the matriculation examination when they come from schools recognised by the University for the purpose. The University has no machinery of its own for inspecting and estimating the work of the schools. The work is usually done by the officers of the Education Department. The reports of these officers are considered by the syndicate and they usually figure on the agenda list of this overworked body among enormous numbers of other items of business. However willing and however competent the syndics may be it is impossible that these cases can, in the circumstances, receive the full attention they merit. I am surprised that the University has not of itself separated this work and handed it over to a special committee of the senate permanently

appointed for the purpose. The advent of a new university, such as that of Dacca, points to the desirability of the formation of some new agency, such as a joint board, in which the universities and State departments concerned could deal with the whole question of school recognition and examination.

I do not believe it would be possible or just suddenly to raise the standard required in the test for admission to the University for all schools, but it might be possible to institute a school examination of a considerably higher standard than that at present required for matriculation, to staff and equip a few schools in such a way that they would be able to fulfil the requirements of a higher kind of education, and to give some compensating advantage, such as the shortening of the degree course, to boys entering the University by its means.

If the control of the matriculation examination were given up by the University its income would be reduced by the vast sums of money in losing the fees. It would be possible to remedy this by arranging for Government to pay to the University as an extra grant the money realised from the examination fees after deducting the cost of the examination. The University could then levy a small fee for matriculation, apart from any question of examination.

BISWAS, CHARU CHANDRA.

I cannot say that I am satisfied with the existing conditions of admission to the Calcutta University. There are two principles which I consider should be kept in view in regulating admission to the University, *viz.*, that the time and opportunities of the University should not be wasted in conferring such elementary instruction as can be obtained elsewhere; and that the higher instruction of the University should be made accessible to everyone who can take advantage of it, although he may not have been able to go through any very extended course of education. To secure these objects, it is obvious that it would be necessary to make the matriculation a sufficient, but not the sole, test of admission to the University.

Some of the most important changes which are necessary are as follows:—

(*a*) A modification of the existing courses of studies. Without going into details I should say that the aim should be to give what may be described as a liberal though not a full, education—such an education, in fact, as will secure an even development of all the man's faculties, and will, at the same time, open the way for the indefinite strengthening of any special capabilities with which he may be gifted. I would not give the student too much freedom in the choice of his subjects at this stage, and I would make the study of certain subjects compulsory, such as history, both of India and England; geography; elementary hygiene; elementary arithmetic and geometry; and the rudiments of physical science (if practicable).. As for English I would partially restore the old system of prescribed text-books, and would make conversation in English a part of the course in the subject. Vernacular (both literature and composition) should also be compulsory.

(*b*) A general raising of the standard, not merely of examination, but also of teaching, in all subjects, especially in English. It is essential that students must come sufficiently well prepared to be able to profit by the instruction which the University will give.

(*c*) Abolition of a rigid age-limit, as is now in force. This only serves to arrest by a sudden jerk the mental development of many intelligent boys. The age-limit may be retained, as a general rule, for average candidates, but head masters, if satisfied on expert medical opinion as to the physical capacity of the student, should be allowed to relax the rule in exceptional cases.

(*d*) Institution of special tests to be held by colleges for such students as would seek admission without passing the matriculation. In every such case the candidate will have to satisfy the University that there were good and sufficient reasons for not appearing at the matriculation.

BISWAS, CHARU CHANDRA—*contd.*—BISWAS, SARATLAL—BOROOAH, JNANADABHIRAM—BOSE, B. C.

(*e*) Relaxation of existing restrictions to the admission of students of other universities as such. The danger of lowering the standards of the University by an indiscriminate admission of such students will, of course, have to be guarded against.

BISWAS, SARATLAL.

The matriculation examination, the passing of which is at present the condition of admission to the University, is satisfactory, and it should not be replaced by any other system in which such admission is not under the control of the University.

BOROOAH, JNANADABHIRAM.

The matriculation examination should be made a little stiffer than what it is at present. There should not be a minimum age—clever boys should be given a chance of finishing their education as soon as possible. An Indian does not live as long as an Englishman. He ought, therefore, to be given a chance of starting his career of usefulness earlier than an Englishman.

The University should also reserve the right of admitting any one it likes of equal merit without his going through the test of the matriculation.

Some students may fail, say in mathematics, but they may be exceptionally good in other subjects. Such students should be allowed to prosecute their studies and get a degree in one of the subjects in which they are proficient. It does not follow that a student is useless simply because he has failed to pass in one subject only. This concession should, of course, be reserved for exceptional cases.

Book-keeping, typewriting, and shorthand may usefully be included in the curriculum of the University.

The intermediate examination may be done away with. A student, if he has attended a college for three years, should be eligible for sitting for the degree examination. A student should be in a position to appear and get a degree in the subject in which he is proficient.

BOSE, B. C.

In some respects the present conditions of admission appear to be rather arbitrary or unreasonable; *e.g.*, in respect of the physical development and the intellectual attainments of the student concerned.

(*a*) The minimum age for the matriculation examination has been fixed at sixteen though, evidently, it is unnecessarily high for some while there must be some whose health is not adequately safeguarded by it. A more effective and rational method of ensuring the students' physical stamina would be, I think, to relax the age-limit and, at the same time, *strongly urge every boy* (by means like those suggested in my answer to question 18) *to take regular bodily exercise* before being sent up for the matriculation examination. That would not only remove an undue hardship from the more robust and gifted, but also give a healthy stimulus to physical culture, so often utterly neglected by the modern Indian student.

(*b*) As for the mental equipment of a matriculate, it seems to be less satisfactory under the "New Regulations" of the University (in force since *circ.* 1909) than formerly. For instance, geography is now only an "optional subject", with the result that a boy may enter upon an advanced study of European history on joining a college, without knowing the relative positions of Denmark and England, or even of Europe and India. A grounding in the *rudiments* of *all* the

subjects of general culture, so necessary for liberalising the mind, is to be strongly insisted upon for every one entering the University; and none of the subjects that were compulsory under the "Old Regulations" appears fit for neglect or rejection; on the other hand, a few more might be advantageously added to the list, *e.g.*, the principles of hygiene and sanitation (private and public), or the infallibility and beneficence of the eternal laws that sustain the universe, and so on (*vide* my answer to question 13). Of course, the books selected must be at once simple, accurate, and interesting; and every encouragement should be given to the compilation of such text-books in subjects that are yet devoid of them.

BOSE, Rai CHUNILAL, Bahadur.

I would stick to the present matriculation examination as the qualification for admission into the University. Only I would add a few other important subjects, such as general geography, English history, and elementary science to the matriculation course as compulsory subjects, and these should be taught through the medium of the vernaculars.

BOSE, G. C.

The present conditions of admission to the University of Calcutta are not satisfactory. The equipment with which the matriculates enter the University does not enable them to profit by the University teaching. Their equipment in English is especially weak.

To make the conditions of admission satisfactory the curriculum of studies and the method of teaching in secondary schools should be improved. Changes on the lines indicated in my answer to question 11 are likely to bring about the desired object.

BOSE, HARAKANTA.

Not quite satisfied; the intellectual equipment of students seeking admission into the University are, in the majority of cases, quite inadequate. I should, therefore request the authorities to revise at once the matriculation curriculum in the light of their past experience. I have already submitted a note on the subject to the committee recently appointed by the University to draw up revised courses of studies for students preparing for the several University examinations. Some of the suggestions made by me in this connection will be found in my answer to question 13.

BOSE, Sir J. C.

Perhaps improvement is possible by introducing a wider variety of more interesting subjects for matriculation, such as are included in the Cambridge local examination. But this must be undertaken by the University itself, without making it in any way departmental. The record of good class work done by students, in the case of illness during examination time, should entitle a candidate to favourable consideration.

BOSE, J. M.

Under the existing system any one passing the matriculation is entitled to be admitted to a college. But, as I have stated before, the syllabus is too elementary for a sixteen-year old boy, and the standard of examination too low, so that any one passing his examination in the second and third divisions cannot, in any way, be regarded as fit

to proceed to the study of the University curriculum. But, still it is desirable to retain it for the same reason that an ordinary or pass degree is retained in the British universities. In short, it is only to be used as a school-leaving certificate or as a label to show that a boy who has passed it is sufficiently educated for certain minor professions. But it should not be regarded as a test of fitness to proceed to the University studies. If the present standard be retained, then the age-limit should be fifteen. After passing this examination the boy should undergo a special course of training for another year in which elementary science and practical training in the use of the English language should find a prominent place.

Under the present system no one is permitted to appear at the matriculation examination unless he is at least sixteen years old, and in the matriculation class of every school will be found a large number of boys who has to wait for two, or even three, years in order to attain this age. There is absolutely no reason why boys should be permitted to waste in this manner two of the most valuable years of their life.

BOSE, KHUDI RAM.

Some very material changes seem to be called for in the present conditions of admission to the University; and these may be detailed in the following way:—

(*a*) The teaching of *English* at the matriculation stage appears to stand in need of considerable improvement:—

(i) by the appointment in all high class English schools of at least three teachers of marked proficiency in English literature and language; and

(ii) by the prescription of *compulsory study* of suitable text-books (original or compiled) abounding with reflective, didactic, or preceptive and biographical pieces illustrative of lofty ideals of life and conduct and conducive to the harmonious development of the many-sided nature of man.

(*b*) The study of geography of the four quarters of the globe and history (of England and India) should be made compulsory. Omission of these subjects of study from the matriculation curriculum, under what are known as new regulations of the University, has made our callow matriculates a laughing-stock of all cultured people.

(*c*) The subject of *hygiene*, too, in its most elementary aspects, may form quite an acceptable adjunct to the matriculation curriculum. The well-marked unhealthiness of Bengal districts and villages seems to lend an additional support to this small innovation in that course of study.

BOSE, Miss MRINALINI.

I think students should be required to pass an examination such as the matriculation before they are admitted to the University of Calcutta, as is done at present. But its standard should be raised, and made the same as those in other Indian universities, *e.g.*, the Punjab and Allahabad Universities. Some elementary science (physics and chemistry) may be introduced into it, and all students may be examined in English, mathematics, second language, history (including both English and Indian history), geography, and science. I would recommend only one course of mathematics, which all students should be required to study. The course or standard prescribed for the Allahabad University would do very well.

BROWN, Rev. A. E.

If English be retained as the medium of instruction then a higher standard of English should be required of matriculants.

CHAKRAVARTI, BRAJALAL—CHAKRAVARTI, CHINTA HARAN—CHAKRAVARTI, VANAMALI—CHANDA, The Hon'ble Mr. KAMINI KUMAR.

CHAKRAVARTI, BRAJALAL.

In the existing state of the work the condition of admission to the University is not satisfactory. Bifurcation of studies before matriculation is objectionable. Considering the stiffness of the intermediate standard the present standard of matriculation is rather low and the transition from one stage to the other is felt as somewhat abrupt. If English is to be retained as the medium of instruction in the college the mode of teaching English in the schools will have to be improved and text-books will have to be fixed, instead of recommending a number of them.

CHAKRAVARTI, CHINTA HARAN.

The present conditions of admission to the University are not satisfactory:—

(*a*) The existing restriction with regard to the age for admission to the matriculation examination is not desirable.

(*b*) The American "accrediting system" of direct admission to the colleges may be tried as an experimental measure to minimise the existing stress on the matriculation examination.

CHAKRAVARTI, VANAMALI.

The matriculation examination should continue to be the test for admission into the colleges. The course prescribed should, however, be increased by adding compulsory courses in the history of India, history of England, hygiene, elementary science, and one compulsory text-book of English of an untechnical nature (containing writings not more than fifty years old).

Care should be taken to see that this raising of the standard does not result in a diminution of the number of students receiving secondary education. The schools must be better staffed so that more efficient teaching might compensate for the raising of the standard.

The number of colleges in Bengal is insufficient at present. Some students are refused admission every year. The best remedy would be to add the first and the second year classes to all big schools. This would have the additional effect of improving the schools. The opening of I. A. classes would mean the presence of about six second-class M. A.'s (if first-class be not available) in every school, namely, the professors of English, history, Sanskrit, Persian-Arabic, logic, mathematics. All big high English schools already possess on their staff on an average *two* second class M. A.'s. So four new M. A.'s would have to be taken in, costing Rs. 1,000 per month (the average monthly salary of each professor being counted at Rs. 250). Two hundred and fifty students paying Rs. 5 each as tuition fee would give us Rs. 1,250 per month. So the expenses would not be prohibitive. As none of these teachers would have full work in the I. A. classes they should be required to do some work in the school classes, thus raising the teaching in the school to a decent level, which is far from being the case at present.

In important schools I. Sc. classes might be added.

It is not meant that B. A.'s and third-class M. A.'s should not be allowed to teach college classes under any circumstances. Bengal has such excellent B. A.'s as Babu Ramaprasad Chanda of Rajshahi, and such as he might surely teach the college classes.

CHANDA, The Hon'ble Mr. KAMINI KUMAR.

I am not sure if I have rightly understood the question. Assuming that it refers to the present standard of matriculation I would say that the student should be better grounded before admission to the University.

CHATTERJEE, The Hon'ble Mr. A. C.—CHATTERJEE, Rai LALITMOHAN, Bahadur—CHATTERJEE, P. K.

CHATTERJEE, The Hon'ble Mr. A. C.

No ; the standard should be considerably raised, especially with regard to the knowledge of English as a language.

CHATTERJEE, Rai LALITMOHAN, Bahadur.

The present conditions of admission into the University of Calcutta are :—

(*a*) That students who are nominally or badly trained in secondary schools are sent up to an external examination conducted by the University.

(*b*) That when they come up to the first year class it is found that their knowledge of English is poor, they have not been trained to think in a clear and orderly manner, and only know how to "cram," and get little benefit from the lectures in the class.

(*c*) That as most of the colleges have to depend chiefly upon the fees of students the present tendency is to lower the standard of the matriculation examination so that more students may be attracted and more may pass.

(*d*) That the syllabus for the matriculation allows too much option in the choice of subjects and students who come up to college lack information in many things indispensable to an intelligent following of the college courses.

These conditions are not satisfactory.

The great remedy, of course, lies in getting better teachers for the schools and improving the methods of teaching there.

So far as the University is concerned the following may be suggested :—

(i) That the standard of the matriculation examination should be raised. More compulsory subjects should be prescribed (including general geography, history of England and elementary general science) ; no optional questions should be set ; the minimum pass marks should be raised ; in examining papers a less rigid method should be followed and importance should chiefly be attached to clearness of thought and expression.

(ii) That a school final examination should be established to carry off the surplus who fail to pass the matriculation.

(iii) That colleges should be placed above the need of absolutely depending upon fees by Government aid or public benefactions.

CHATTERJEE, P. K.

While admitting that, at present, the system of admission to the University on passing the matriculation examination is the only practicable alternative, I do not think that it can be regarded as the best system. A boy might have done good class work all along but ill-health or other accidental circumstances at the time of the examination might prevent him from passing this test. This would mean an unfortunate loss of time and, in some cases, the boy might be compelled to give up further studies. Many promising boys going up for university education are really very poor and may not be in a position to continue their education if once interrupted.

Considering the large number of secondary schools, with their different standards of study, it would be rather difficult, though not altogether impossible, to introduce, at once, any system of school certificates as a condition of admission to the University. As a preliminary step, however, a system of thorough inspection of the work done in secondary schools might be adopted with a view to attaining a fairly uniform standard in different schools.

CHATTERJEE, RAMANANDA—CHATTERJEE, Rai Bahadur SARAT CHANDRA—CHATTERJEE, SATIS CHANDRA—CHATTERJEE, SUNITI KUMAR—CHATTERJI, MOHINI MOHAN.

CHATTERJEE, RAMANANDA.

No; all schools recognised by the University may find it desirable to keep an accurate and complete record of the progress made and work done in class by matriculation candidates. Should any candidate fail in a university examination, but be found to have done satisfactory work in class from the school record, his name should appear in the pass list. A school not keeping such a record would lose the advantage referred to here; that should be the only penalty for not keeping such records.

I am in favour of what has been called examination by compartments. If any student fails in any subject or in the aggregate in the matriculation, but secures, say, 50 per cent of the maximum marks in any subject, he should not be required to undergo an examination in this latter subject again. Incidentally, I may say that I make this suggestion with regard to higher examinations also.

I am opposed to any system of school final examination *conducted and controlled by the Education Department.* If it be considered necessary to teach any subjects which are not at present taught they may be added to the matriculation course.

CHATTERJEE, Rai Bahadur SARAT CHANDRA.

The standard as regards the teaching of languages and in the general knowledge of history and mathematical principles and elementary physical science is low.

I would suggest better arrangements for the teaching of languages and the subjects noted above.

CHATTERJEE, SATIS CHANDRA.

The present conditions of admission to this University are, on the whole, satisfactory, but it seems desirable to improve them by the inclusion of geography and history in the list of compulsory subjects for the matriculation examination.

CHATTERJEE, SUNITI KUMAR.

The University should insist, as now, upon a matriculation examination, but the scope of that examination should be widened. I would recommend the following changes:—

(*a*) The vernacular to be the medium of instruction and examination in all subjects, except English, which should be made a compulsory second language, with a higher standard than the one obtaining at present.

(*b*) Texts should be prescribed by the University in English, as well as in the vernacular.

(*c*) The study of Indian history, English history, geography, and elementary science should be made compulsory.

The present conditions seem to be unfavourable for a school final examination in place of the matriculation examination conducted by the University.

CHATTERJI, MOHINI MOHAN.

The present conditions of admission to the Calcutta University do not appear at all to be satisfactory. A public examination somewhat similar to the present matriculation, but not qualifying for admission to the University, should be held for boys not below fourteen years of age. This examination should be left to the Director of Public Instruction. Successful candidates at this examination will alone be admitted after a two years' course of preparation to the true matriculation, higher in standard than the present, the advance being especially directed to the knowledge of English.

CHAUDHURI, The Hon'ble Justice Sir ASUTOSH—CHAUDHURI, BHUBAN MOHAN—CHAUDHURI, HEM CHANDRA RAY—CHAUDHURI, The Hon'ble Babu KISHORI MOHAN—CHAUDHURY, The Hon'ble Babu BROJENDRA KISHORE ROY.

CHAUDHURI, The Hon'ble Justice Sir ASUTOSH.

No; I would abolish the present matriculation and make the I.A. or I.Sc. the standard for admission.

Secondary schools should give a training complete in itself, winding up with an examination which may be called the school final. There should then be a two-year course—in continuation classes—bifurcated for arts and sciences something in the nature of the I.A. and I.Sc. The school final should be under the control and supervision of the University. Primary, secondary, and university education should be different stages of a progressive educational system—the University being the head of the system.

The University should have a three-year course only for the B.A. or B.Sc.—B.L. or M.B. degrees.

Masters' degrees may be provided for after another year.

Doctorate degrees should be granted for original work or for advanced studies to be judged by theses written by candidates. Such theses should be required to be written in the Bengali language to help the development of the language for scientific purposes

CHAUDHURI, BHUBAN MOHAN.

Students become eligible for admission to colleges for university education after passing the matriculation examination, but all matriculates have not the mental equipment necessary for collegiate education. All such students should choose some other lines of training to avoid failures and disappointments. It is, therefore, necessary that, before admitting boys, the college authorities should make a judicious selection either by an admission test or from the University examination marks.

CHAUDHURI, HEM CHANDRA RAY.

The matriculation examination is to be retained. The study of Indian history, of geography, and of elementary science, including mathematics, should be made compulsory. Bengali should be the medium of instruction and examination, but the study of English as a second language should be made compulsory.

CHAUDHURI, The Hon'ble Babu KISHORI MOHAN.

The present conditions of admission to the University of Calcutta should continue. I would, however, insist upon a better preliminary training of a higher standard. The subjects of study should also be more comprehensive so as to enable students to follow the university course and lectures efficiently. There should be no optional courses in the preliminary training so that the 'groundwork' may not be one-sided

CHAUDHURY, The Hon'ble Babu BROJENDRA KISHORE ROY.

The matriculation examination test is ordinarily sufficient. Having regard to the spread of education in Bengal students of private institutions not recognised by the University, or not conforming to the rigid rules of the Government inspectors' or the directors' office, should also be admitted to the matriculation examination. This would help the growth of private institutions under private charity, and would also help the making of experiments in different modes of teaching in the school classes.

CHAUDHURY, The Hon'ble Nawab Syed NAWABALY, Khan Bahadur—CHOUDHURY, Rai YATINDRA NATH—COCKS, S. W.—CROHAN, Rev. Father F.

CHAUDHURY, The Hon'ble Nawab Syed NAWABALY, Khan Bahadur.

No; recognition is improperly given to schools, and not always with impartiality. It is essential that recognition should rest with a thoroughly trustworthy and impartial authority. Examinations must be on a smaller scale which will be possible when the territorial jurisdiction of the universities is restricted. Also the matriculation course should be so framed that those who pass it should be able to derive solid benefit from a university course.

CHOUDHURY, Rai YATINDRA NATH.

No; I am not satisfied with the present conditions of admission to the University simply because the present conditions do not provide adequately for the mastering of the English language before students enter the University. In the system which I propose the teachings in all subjects except the English language, and other examination also, should be conducted in the vernacular; consequently, our students would have ample opportunity to study more thoroughly and satisfactorily the English language as a language in order that they may have suitable facility for properly understanding college lectures which should still, for a few years at least, be continued to be delivered in English in many subjects, and in properly expressing their thoughts in that language also. This can be managed admirably if only our University directs its attention properly to this matter. The system I propose here, if adopted, will save students from unnecessary strain upon them for mastering a difficult foreign language, and will save the present trouble of our teachers and professors in making themselves easily understood by our students.

COCKS, S. W.

This question has already received a practical answer in my recommendation, which the Government of Burma has accepted, that, after March, 1918, schools in Burma shall cease to present pupils for the Calcutta matriculation examination. I support the view that the school-leaving certificate should be the test of fitness for admission to a university, and that the University should not be allowed to prescribe courses for the schools; further, that a purely external examination, such as the matriculation examination, is a misleading test; and has a detrimental effect on the work of the schools. Admission to the University should, moreover, depend upon something more than the result of an examination. A satisfactory school record should be an essential qualification for entrance. Finally, as suggested above in my answer to question 1, the minimum limit of age at admission should be raised.

CROHAN, Rev. Father F.

The present conditions of admission to the University are indeed very unsatisfactory. The following suggestions may be offered as a means of meeting the deficiency:—

(*a*) By revising the matriculation curriculum, raising the fees to a uniform standard, and admitting to university studies only such students as pass in the first or second division much improvement might be effected.

In regard to the matriculation curriculum we suggest that it should include, as compulsory subjects, history and geography and certain portions of mathematics, which actually form part of the intermediate syllabus, *e.g.*, solid geometry, quadratic equations, surds, binomial theorem, ratio and proportion.

(*b*) A good change might be a sub-division of the matriculation passes, one section being considered fit for higher studies, the other receiving merely

a certificate of pass. The examination papers might thus consist of two parts, and such candidates as satisfy in part I only might be awarded a certificate of pass, while those that satisfy in parts I and II might be allowed to join the University. This would help to keep from the colleges many students quite unfit for the higher studies.

CULLIS, Dr. C. E.

The standard of admission should be raised. More subjects, *e.g.*, history and geography, should be obligatory in the matriculation examination, and there should be fewer alternative questions. If alternative questions are retained in the matriculation examination a much higher percentage of marks should be required for passing.

CUNNINGHAM, The Hon'ble Mr. J. R.

If I am right in understanding this question I would state in reply that it is not possible to be satisfied with the present conditions of admission to the University of Calcutta. A higher standard of education is, undoubtedly, required as a preliminary to entrance and, in particular, a much more adequate knowledge of English. In view of the difficulty of arranging suitably for their supervision and control, in view, further, of the temptations to which they are subjected and the weakness of parental authority, it seems desirable that students should not be admitted until they are somewhat more mature. I do not know whether it would be necessary to raise the age of matriculation. Possibly this could be left to take care of itself. But I should advocate experimentally an extension of the school course by at least one year (preferably two), concentrating much more thoroughly than is done at present on the study of English, setting a more useful entrance test; and reducing the period of study for the ordinary degree from four years to three. Probably two school examinations might be held on the lines of the junior and senior school certificate examinations in Scotland. Any action taken would be tentative.

DAS, Rai BHUPATINATH, Bahadur.

The present condition of admission into the University, namely, the passing of the matriculation, should be modified as follows:—

(*a*) A text-book in English, consisting of selected pieces in prose and verse from standard works, should be reintroduced. It is the opinion of many with whom I have discussed this point that a much sounder knowledge of English can be acquired by thoroughly working up such a book than by mere translation. Of course, grammar and translation will continue to form a part of the examination, as now.

(*b*) History of India and history of England should be compulsory.

(*c*) Geography should also be made compulsory.

(*d*) In framing questions a few (carrying about one-third of the total marks) should be so selected as to serve to distinguish between average students, and students above the average.

DAS, BHUSAN CHANDRA, and RAY, BAIKUNTHA CHANDRA.

No; the matriculates desirous of entering the University should have a fair knowledge of the English language, also some acquaintance with English literature. Supposing that the medium of instruction will be Bengali it is desirable that they should also possess a fair knowledge of geography, Indian history, English history, elements of physics, chemistry, and botany.

DAS, Dr. KEDARNATH.

The present matriculation examination is far from satisfactory as a test for proficiency to enter the University and to receive the benefits of education imparted to the students through the medium of the English language. The knowledge of English of the matriculates is very perfunctory, pronunciation deplorably bad, as they are taught by Indian teachers who themselves never pay particular attention to these points, and reading and recitation are always neglected. Moreover the system of examination and apportionment of marks in the English papers are such that it is easy for candidates to secure pass marks in English, which is 40 per cent in the first paper (translation and essays) and 32 per cent in the second paper [grammar and composition (30) and passages from seen (35) and unseen books (35)]. Even the 40 per cent in the first paper is not compulsory provided he secures 40 per cent in the aggregate of *two* papers, or, in other words he can pass by reading his grammar well and knowing his translation. The following facts supplied to me by an examiner of the second paper in English are very significant and interesting. Taking the marks gained by candidates in grammar and in the other part of the paper separately the averages work out to 16 out of 30 in grammar and 18 out of 70 in the rest of the paper. This means that the grammar is so easy or set in such a way that a boy has only to make comparatively few marks in the part of the paper which is the real test of his ability. This has a detrimental effect on the teaching of English in schools. Grammar is examined as grammar, and not as an aid to English, as the teachers know that a boy can hardly fail if he knows the grammar book. It is then evident that, at the present time, a candidate passes the examination easily without any guarantee that he possesses the requisite knowledge of the subjects.

In this connection, the following facts and references will be of use to the Commission, giving them an idea of the situation.

At a meeting of the senate held on February 20th, 1915, Dr. Watson brought forward a resolution for an enquiry into the cause and significance of the rapid increase in the percentage of passes in the matriculation examination in recent years. In moving the resolution Dr. Watson brought forward certain important statistical figures, which will be found on pages 550—555 (Part II, Calcutta University Minutes, 1915). Dr Watson was of opinion "that the standard of the University examinations has been rapidly falling in recent years". In seconding the motion Mr. Südmersen said that "most of the boys who passed the matriculation examination were unable to take advantage of the teaching in the intermediate classes". At the discussion on this motion at a subsequent meeting of the senate held on August 7th, 1915, it was evident that the majority of members was of opinion, that the standard of the matriculation examination has, undoubtedly, gone down in recent years. At this meeting Sir Asutosh made a statement to the following effect :—

> "He had for a long time desired to bring before the senate a motion on similar lines to those under discussion but he had been forestalled by Dr. Watson. His motion would have been that a committee be appointed to report on the present condition of recognised schools and affiliated colleges, the improvements that had been effected in them since 1903, and what further improvements were required to increase their efficiency; also to report generally on the courses prescribed for the examination in the faculties of arts and science and on the standards of those examinations. He would bring forward a motion of this kind before the faculties of arts and science."

Accordingly, the consideration of Dr. Watson's motion was adjourned, with a view to the proposed motion of Sir Asutosh being placed before the faculties. It was felt, however, that the inquiry proposed by Sir Asutosh was too wide and that more tangible results will be secured by the inquiry proposed by Dr. Watson.

Sir Asutosh brought forward his motion for the appointment of a committee of sixteen before a joint meeting of the faculties of arts and science on August 21st, 1915 :—

> (*a*) To report on the conditions of recognised schools and affiliated colleges, what improvements have been effected in them since 1905, and what further improvements are required to increase their efficiency;

DAS, Dr. KEDARNATH—*contd.*

(*b*) To report on the courses, standards, and methods of examination in the faculties of arts and science and to suggest such improvements as may be necessary or desirable.

Sir Asutosh, in moving the resolution, said that " the new system adopted had not produced all the results which it was hoped that it would produce. Old evils have been removed but new ones have made their appearance. The student was trained to translate from vernacular into English and to write essays. But this was not adequate preparation for the intermediate course in English. It was useless to lay the blame on the students. Many of the teachers of English were ill-paid and were not competent to teach the language, their knowledge of grammar and idiom was defective, and their pronounciation was often sadly at fault".

During the debate on the above motion on 28th August, 1915, it was apparent that the majority of the members was of opinion that at present candidates who passed the matriculation examination were not able to take full advantage of college education. In this connection, Dr. Fermor's observations, which will be found on pages 102 and 103 of the Calcutta University Minutes (" Senate and Faculties", 1915), are important, and should be read *in extenso*. I would also refer to the remarks of Sir Gooroo Dass on page 107, and Mr. Masood's remarks on page 108. Sir Asutosh's motion was carried and the committee of sixteen, with Sir Asutosh as its chairman, was appointed on the 25th September, 1917.

In spite of the appointment of the committee of sixteen Dr. Watson brought in his resolution for the inquiry into the causes of significance of the increased percentage of passes at the matriculation at the meeting of the senate held on 4th December, 1915. That resolution was carried, 39 voting for and 20 against. This committee consisted of five members, including Dr. Brajendranath Seal as chairman.

For the information of the Commission I beg leave to state that the committee of sixteen, which was appointed on 25th September, 1915, have submitted a preliminary report, recommending only certain modifications in the courses for the matriculation, intermediate, and B. A. and B. Sc. examinations, leaving out the other matters included in the terms of reference. This report has been discussed at ten meetings of the joint faculties of arts and science beginning on 14th July, 1917, and ending on 15th September, 1917. The changes proposed are radical and admittedly showed that the present system was not satisfactory and required thorough revision. With regard to the Watson committee, which was appointed more than two years ago, I have been trying since June last to get them to submit their report at an early date so that it might be of use to the members of the Commission, but without success. The only information available to the senate was a statement made by the chairman, Dr. Seal, at its meeting held on 1st December, 1917, that the report was being drafted and that the delay was due to the very complex and most interesting problems involved. I dare say the long looked for draft report will be available to the members of the Commission. I would suggest the following changes regarding the matriculation examination :—

(i) English should be taught in the higher classes of schools by European teachers.
(ii) Reading and recitation should form an essential part of the teaching of English.
(iii) Drawing, history, and geography should be made compulsory.

I would mention here that, under the existing regulations, the matriculation examination is considered to be an adequate test for commencing medical education. I am decidedly of opinion that students must pass at least the intermediate examination to enter the Medical College.

The medical profession calls for a high order of reasoning, and for training in the observation of facts, and in the proper marshalling of facts, in order to reach a correct result; and it also involves the acquisition of a high order of skill. It is, therefore, imperative that professional teaching in medicine should depend upon a high standard of general education. The medical student must have a timely opportunity to ground himself in fundamental studies and to learn how to think, how to observe, how to apply.

DAS GUPTA, HEM CHANDRA.

I am not satisfied with the present condition of admission to the University of Calcutta, and I would suggest the following changes :—

(*a*) For testing a candidate's proficiency in English questions should be set from prescribed text-books, besides those on general composition, translation, and grammar.

(*b*) History should be made compulsory.

(*c*) Geography should be made compulsory.

(*d*) The present additional mathematics should be included in the compulsory portion.

(*e*) Proficiency in vernacular should be tested not merely by setting questions on composition, but text-books should be prescribed and questions should be set on these texts.

(*f*) Elements of physics and chemistry should be introduced.

(*g*) Drawing should be introduced.

(*h*) Some of the subjects will be compulsory, and some optional, as in the following list :—

Compulsory.—English, Bengali, a classical language, mathematics, history, and geography (physical and political).

The candidate shall have the option of studying either an additional classical language and additional history, or the elements of physics and chemistry and drawing.

(*i*) Instruction in all these subjects, except English, must be imparted either in English or in Bengali, and a candidate whose vernacular is Bengali must be instructed and examined in all these subjects, except English, through the medium of Bengali.

(*j*) The matriculation age-limit should be abolished.

DAS GUPTA, SURENDRANATH.

The present system of admitting the matriculates to the University is objectionable on two main grounds :—

(*a*) Their knowledge which they acquire in the matriculation stage is so very limited that they can hardly avail themselves of the benefits of high education to the fullest extent.

(*b*) Their knowledge of the subjects in which they want to specialise in the college is so low that much of the time of the college has to be spent in tutorial work which need not have been the case if they had a better fund of knowledge at the time of admission. This habit of requiring tutorial assistance, once begun, continues throughout the college course and students have generally no reliance upon themselves.

It has often struck me while taking my classes in the B.A. and the I.A. that there is practically no difference between a matriculate, an I.A., and a B.A., except that the subjects of memory are different in each case. The same mental inertia, the same indolence of thought, and want of self confidence everywhere. In some subjects the books are often left untouched, printed notes and lecture notes are collected and learnt by heart; for the sole object is to get a pass anyhow. As a result of such an atmosphere in the student world even the most ambitious professor is bound to fail in most cases to secure an elevated standard for his class. It is said of ducks that they can drink the milk leaving the water aside; I do not know if this is a fact but I am sure our boys have the peculiar gift of sifting from a class lecture only that much as is necessary for their examination. Unless the whole system is changed no short cuts can remedy this evil; it is making our students dull, in spite of education and so-called training. The system expects, our authorities require, and the boys demand, that our essential duty consists in securing as many passes for our students

DAS GUPTA, SURENDRANATH—*contd.*

as we can; so we also learn in the end to think the same of us; and thus debase our status as professors of highest training.

I, therefore, beg leave to suggest the following scheme for favour of the kind consideration of the Commission:—

The matriculation age-limit should be raised from sixteen to seventeen years. From the fourth class, in addition to the subjects which they now read, they should read elements of such cultural subjects as physics, chemistry, political economy, logic, physical geography, general hygiene, and physiology; and, in addition to these, there should be a paper on general knowledge concerning the great men of the country, machinery of government, and matters of local interest. These should be taken in groups and, thus, taking them group by group these should be introduced gradually from the fourth class. Each group, as soon as it is finished in a class, should be left there and should not further be continued in the higher classes. Instruction in these subjects should be given in vernacular and books for this purpose may be specially composed with the help of experts who may be expected to deal with the subjects of these branches of learning in a simple and attractive style. I am quite sure that that amount of physics, chemistry, or logic which is done in the intermediate classes will be easily intelligible to boys of thirteen years of age if the instruction is conducted in vernacular in those subjects. The manner in which time is spent in the schools is of the most idle sort; the same thing is repeated year after year; the same grammar begun from the nouns in each class; the same fractions from year to year; the most unimportant things often occupying the largest share of time. With the necessity of teaching many subjects there will, naturally, be a paucity of hours for each of the subjects and this it may be hoped, will lead the teachers (who may also be specially trained for the purpose) to utilise the time at their disposal to the best of their power. In order to make this scheme successful it will be necessary to have teachers specialised in particular subjects, and the hours of teaching should be much minimised. The teacher who has to work for six periods cannot but idle away his time in the class. No pressure can be of any use when carried beyond a certain limit. Such idle hours are the sources of all mischief in every sense of the term.

Throughout the career of a student of the matriculation course special stress should be laid upon the study of English, especially with a view to making them learn to write correct English and to enable them to understand common English books easily and to train them to talk in English as well.

Boys passing the test of such a matriculation examination will, naturally, possess the general knowledge which is required of every man desirous of being a member of modern society, not to speak of those who want to be university men. It will be profitable if, in addition to the subjects taught, a course of drawing and manual work of the type of carpentry, mat-work, and wicker-work be introduced as a diversion and also for giving some scope to those who wish to proceed on technical lines thereafter. It will be useful to other students inasmuch as it will train them to be a little hardy and practical and rouse their æsthetic sense.

After the matriculation examination is passed students should enter the secondary stage which should be almost the same as the present intermediate standard. Only I should like that the present intermediate standard should be slightly raised. For, in consideration of the fact that the boys had been in the matriculation stage up to seventeen years, and also of their wider general knowledge, they will certainly be able to manage a slightly raised course than the present. It is when they pass this intermediate secondary examination that they should be admitted into the residential university on the one hand or the present B.A. course colleges outside the municipal area of university towns as Calcutta or Dacca. This will raise the standard of teaching both in the present mufossal colleges and also in the university colleges. The residential university B.A. course should, however, be extended to three years, and two subjects should have to be selected by them for their course in accordance to the subjects in which they had tried to concentrate their attention in the secondary stage.

This double system will probably remove the congestion in Calcutta, and will also make provision for those poor students who will not be in a position to afford to pay

DAS GUPTA, SURENDRANATH—*contd.*—DATTA, A. C.—DE, HAR MOHUN—DE, SATISCHANDRA—DE, SUSHIL KUMAR.

the expenses of a residential university. This separation of the intermediate from the B.A. instruction would have to be supplemented by associating these classes as much as possible with the school instruction of the matriculation stage; for if the matriculation boys be associated with these intermediate boys the standard of study in the schools will also be slightly raised and the atmosphere of the schools will also be improved to no mean extent; the school teachers will also be immensely profited by coming into contact with a better class of men for intermediate instruction.

DATTA, A. C.

I am in favour of the abolition of the present system of the matriculation examination. It is cumbrous; and it gives undue prominence to the examination in the school system of education. The admission to the University ought to be by means of the colleges; and, for that purpose, colleges ought to be the proper examining authority for the purpose of matriculation. Students seeking admission into the University should be examined by the college on a suitable standard, and the matriculation should be consequent on the admission to the college as the result of this examination. This will produce a very good result in establishing a closer relation between a college and the high schools in its neighbourhood.

DE, HAR MOHUN.

The present conditions of admission to the University of Calcutta are not satisfactory. History (both of England and India) should be compulsory. The medium of instruction should be vernacular. In English there should be one paper on a prescribed text-book and another paper on unseen passages from books of established reputation which are fit for schoolboys. Greater importance should be attached to Bengali and a selection from authors of great fame prescribed as a text-book. Some provision for manual labour of some kind or other ought to be made in all high English schools which would help to turn out useful members of society.

DE, SATISCHANDRA.

No; the History of England should be added to the compulsory subjects of the matriculation examination, and only one subject should be treated as optional, instead of two. It is difficult for students devoid of an elementary knowledge of English history to understand English literature in which there are frequent references to English history. A text-book containing good prose and poetry extracts from modern English literature should be prescribed in English. The "English test" in the matriculation examination should be a little stricter.

DE, SUSHIL KUMAR.

I am of opinion that some such test or examination as the existing matriculation examination should remain as a condition of admission to the University although there is room for some improvement in the present system of examination. Among the changes that I suggest in the matriculation examination I should like to lay special stress on the following :—

(*a*) The grave defect, to my mind, in the present matriculation system is that it aims at specialisation from too early a stage. It is urged that intensive study is better than extensive; but I may be permitted to point out that intensity without extensiveness is a mere abstraction. Unless there is a good grounding and substantial preliminary knowledge in certain indispensable branches of

knowledge, any attempt at specialisation would be like building a superstructure upon a flimsy basis. A preliminary knowledge of history and geography elementary mathematics, and rudiments of science is certainly indispensable for an all-round training for the University course or for the later stage of specialisation. A matriculate of the University nowadays is absolutely innocent of all knowledge of history and geography and, as an examiner in papers on English, it has not been a surprise to me to find students speaking of Napoleon as a Roman general who conquered America or giving me the valuable information that Switzerland is an island situated in the Pacific Ocean where Julius Cæsar was born. I am of opinion that the old entrance examination in a modified form should be restored, provided that sufficient safeguard is taken not to lapse into the earlier error of prescribing too many text-books and encouraging cram work in an indirect way. A partial restoration of the text-books in the earlier stages, and the lightening of the burden in the later is certainly much more expedient; for, in the earlier stages, text-books, to a certain extent, are almost indispensable. The object of this entrance examination should be to equip the student with a certain amount of positive knowledge as a groundwork of preparation for his university career. Alternative subjects indeed may be given to choose from, but certain subjects, some of which are noted above, should be made compulsory at the matriculation stage. Even in English, composition and essay writing are important things, but attention should not be exclusively confined to these. We cannot do away entirely with text-books even in this case, for a study of the writings of standard authors is a necessary aid towards good composition.

(*b*) Questions of standard and efficiency are much discussed. "We are told", as our vice-chancellor puts it in his convocation address; "that though our standard is high on paper so far as curriculum and questions are concerned, the examination itself is lax which is responsible for turning out a large percentage of indifferent students, proving a drag upon the machinery of education, that are bound to be a further drag upon society and culture". I do not know how far this criticism is just; but nothing certainly can be more deplorable if such a state of things exists, and no suggestions would be deprecated which in any way would better the situation if it were really so bad. If there is a clear case for justifying such reproach the standard should be raised by all means; but this would require some amount of proper investigation into the matter. I understand that the senate is already considering this question. If the raising of the standard is insisted upon a proper examination of facts, no standard, if gradually introduced and for which proper facilities and opportunities are given, would be too high for our students. Personally, I am of opinion that it would do no harm if the standard is raised to a degree somewhat higher than what exists at present.

DEY, BARODA PROSAUD.

The present conditions of admission into the University of Calcutta are not satisfactory. It is considered a great leap from the matriculation to the University. It would be better if a sort of intermediate course be allowed to be taught in such of the high schools as might be considered fit to teach such a course before admission to the University for a degree.

DEY, N. N.

I am not at all satisfied with the existing condition of admission into the University for the present matriculation examination does not provide the general education which would make the student competent to take advantage of the instruction given in the

DEY, N. N.—*contd.*—DHAR, Rai Sahib BIHARI LAL—D'SOUZA, P. G.

college classes. A broad general training should be the ideal of the school education. I suggest a thorough change.

The school course has been unduly lengthened and an arbitrary age-limit has been put in for the present matriculation. I should do away with the age-limit and reduce the school course from ten to eight years. These eight years can be divided into two stages of four years each. In the first stage English and Sanskrit should be introduced in the last year only. The second stage should take up the teaching of all the subjects at present taught in the high schools, with the addition of physics, chemistry, and natural science. The medium of instruction, as well as of examination throughout the eight years' course ought to be the vernacular. The teachers will have some freedom in prescribing the text-books according to the syllabus. Practical scientific training in the last four years of the school stage may be demonstrative, rather than mechanical. The very great craving for education in Bengal at the present time should be satisfied at the last stage of school education by making it suited to the economic condition of the people; hence, I suggest that practical scientific training at this stage need not be very costly. A record of each boy should be kept during the last four classes, which would form as it were the beginning of the life-history of a student. Games and moral training (from lives of men) must be compulsory courses though there need be no formal examination. The final examination of this eight years' course will be held in each school separately subject to the approval of the academic councils mentioned below.

After this stage the student goes to the preliminary university course, *i.e.*, the transition from the wide general education of the school to the specialised education of the higher university courses. This course may be a three years' one to ensure a thorough training which would include much more than the present intermediate course. A sound knowledge of English literature and the vernacular from prescribed text-books should be compulsory and all possible subjects, which should be taken in groups, are to be included in this course to make the student thoroughly competent to take up all the different branches of specialised study for degree courses in arts, science, medicine, engineering, law, commerce, agriculture, technology. In this stage also games should be compulsory. The medium of instruction ought to be the vernacular at this stage, and the examination may also be conducted in the vernacular. Classes should be limited to 60 in each section.

The entire government of the preliminary university stage should be vested in the hands of an academic council subject to the final control of the University. Such councils are to be set up in the University towns, as well as in other centres of population, say, one for each division. These councils would absolutely control the school department. In the formation of these councils, teachers of the preliminary university stage, as also of the school stage, will be largely represented by election, Government nominees, and the general public also having a share.

At the end of the preliminary university stage there will be a final examination held by the academic councils under the direction of the University, in which the teachers will only take part.

After passing the preliminary university stage the student goes to the university department for degrees, which will be a two years' course fully under the control of the University, conducted by its affiliated colleges. The University will grant degrees in arts, science, and teaching, as also in law, medicine, engineering, agriculture, commerce, and technology (*vide* my answer to question 7).

DHAR, Rai Sahib BIHARI LAL.

No. The admission test should be higher—of a more thorough nature.

D'SOUZA, P. G.

There should be a different examination for qualification for entrance into the University and to mark the completion of the secondary course. After the completion of the secondary course students who desire to enter the University should undergo a special course for one year after which they may be treated as having matriculated.

DUNN, T. O. D.

Admission to the University is regulated by the matriculation examination, which has three classes of pass. The conditions of admission are in no sense satisfactory. The following changes might be considered :—

(*a*) The reasonable raising of the standard. It is inconceivable that class III of the matriculation pass represents such a degree of literacy as would justify the beginning of university work. I make this statement with due consideration of the quality of the first-class pass.

(*b*) The conditions of the examination are extremely limited. The University syllabus for the matriculation provides for examination in English, mathematics, one classical language, the vernacular, two of the following optionals :—

Additional mathematics.
Additional classics.
History of India.
Outline of general geography.
Elementary mechanics.

Now, in practice, this easily works down to :—

English.
Mathematics, *plus* additional mathematics.
Sanskrit, *plus* additional Sanskrit.
Bengali.

In other words, four subjects, with the linguistic element strongly predominant. This combination is the most popular because all the schools are so staffed as to teach these subjects, and these alone. In few schools geography or mechanics are taught ; and the training acquired in the teaching of these subjects is at present not thorough. The University has the rearrangement of the matriculation syllabus under consideration ; but existing conditions are as described above.

The question of what changes should be made is a very large one, but the following points might be put forward :—

(i) High school education must be given some meaning in itself. At present what value it possesses is strictly limited to its relationship with college work. In other words, it does not provide in itself any training for life.

(ii) It will be imperative to lengthen the high school course so as to include the intermediate stage. This might influence the final examination in the following ways :—

(A) The provision of a wider range of subjects so as to include those with special bearing upon industrial, mechanical, and commercial work. For example, up-to-date geography, thorough training in mechanics and physics, geometrical drawing, chemistry; manual instruction, etc.

(B) English would predominate on the linguistic side, and be included in every combination of subjects ; and the University should be prepared to accept almost any combination of subjects, if English were included, in order to make it possible for the student who had taken, let us call it, a *practical* course, as distinct from a *literary* one, to proceed to the University if he so decided at the close of his preliminary training. It has to be remembered that the Calcutta University absorbs all the intellectual activity of the country (save that peculiar to the Marwari) ; and therefore, it should not confine this activity to narrow academic grooves.

Even without including the intermediate stage in the high school course I would recommend the above changes, and would make these the basis of the new school final examination.

It is only part of the truth to say that admission to the University is based on the matriculation examination. It would be more accurate to say on an examination to

DUNN, T. O. D.—*contd.*—DUTT, BAMAPADA.

which candidates are admitted after undergoing instruction in a certain type of school whose constitution is controlled by the University. This leads, then, to a point of some importance. One irrefutable proof of the unsatisfactory conditions of admission to the University is the state of the secondary schools in enjoyment of "recognition". In other words the regulations dealing with this "recognition" have become a dead letter. For the following reasons most undesirable and most inefficient schools continue to enjoy their connection with the University :—

(1) The University does not inspect the schools which it recognises. This duty falls to an officer already overburdened with administrative work ; and it is extremely difficult to keep reports that have any real value up to date.

(2) The unwillingness of the University to enforce its own regulations. Once recognise a school, and nothing short of an earthquake can remove its recognition. The reason for this is twofold :—

(*a*) People in India do not like to be unpleasant and to take a final and decisive course. Instead of disaffiliation, or removal of recognition, the offending school is let off with a warning that, unless within such and such a period improvements have been effected, action will be taken. And so on.

(*b*) The regulations are scarcely capable of fulfilment in the spirit and the letter by about sixty per cent of existing institutions. Consider, for example, the proviso regarding buildings and accommodation ; and apply this to existing conditions in Calcutta town.

(3) Secondary education has, in many instances, fallen into the hands of designing people who have as much right to be described as educationalists as the classic Squeers—indeed less, for Squeers gave at least a weekly aperient to his victims. These men make it their business to dodge all regulations. The following case came under my notice a few weeks ago. Two almost contiguous schools in Calcutta, one of which (A) is "recognised" and the other (B) unrecognised and, therefore, forbidden to hold a matriculation class, made the following arrangements. When the senior boys of B had finished the second class, that is, the class immediately before the matriculation class, they were given transfer certificates to A but continued to read the matriculation course in B, the latter being absolutely forbidden without the University's permission and recognition. On the strength of these bogus transfer certificates they were admitted on to the matriculation rolls of A and appeared as from A at the University examination without having read a single day in A. This deliberate disregard and violation of the regulations had been going on for a considerable time and was brought to my notice by a guardian who had fallen foul of the managers. A surprise visit to each school revealed the truth. Here the motive is purely financial. Until it is finally decided that all schools and colleges shall be conducted as public trusts, with no profit accruing to any individual, these abuses will exist.

It will be readily granted that, in circumstances of this kind where an educational officer has to perform the functions of the police, the problem of the school, *as such*, has scarcely arisen. It is not enough to recognise and to rearrange syllabuses of instruction with higher standards. It is imperative to ensure moral health in the schools, and to this end to create some body of vigilant control. In far too many cases Bengali boys come to college on the strength of a thoroughly unsatisfactory examination taken in schools of the most undesirable kind.

DUTT, BAMAPADA.

I am not at all satisfied with the present conditions of admission to the University. The standard and test of efficiency should be raised. A student at the time of entering the University should be better equipped with general knowledge and information than

he is at present so that he may follow profitably the lectures of his professors and he should have a thorough grounding and be proficient in the language through the medium of which education in the University is imparted.

DUTT, P. N.

The present condition of admission to the University of Calcutta is that one must pass the matriculation examination before being allowed to join the University. At Cambridge, where I was for some time, it is not necessary to pass any examination before the matriculation. But the colleges insist upon a certain educational standard before accepting a student on their rolls. In London there is a matriculation examination like that we have in Calcutta. Now, there is one thing which we must not forget when dealing with the question of admission to the University of Calcutta. Our students join the University of Calcutta mainly with a view to make a living by their university education. I believe it will be admitted that the number of students who join the University of Calcutta at present are as many as can earn a decent living with their university education. In fact, the question, looked at from this point of view, I believe is rather whether too many students have not joined the Calcutta University. I may state that I felt disgusted when I took a man who had headed the second class in the list of M. Sc's. in mathematics in his year to a friend of mine, who was a high Government official, and was told that he could do nothing for the young man as he had a great number of 1st class M. A.'s in mathematics asking for appointments on Rs. 50 per month (about £40 per year). I once went to preside at a distribution of prizes in a high school where I found an M. A. of the Calcutta University working on Rs. 40 per month (£32 per year). This place was very difficult of access from Calcutta being several miles off the railway over a bad road. I once heard of an employer thinking that he could offer Rs. 25 per month to an M. A. of the Calcutta University (£20 per year). Now, to educate a student up to the M. A. standard requires at least six years after his matriculation and costs at least Rs. 30 per month and, taken with the charges for books, examination fees, etc., the whole outlay would be at least Rs. 3,000. Now, in our country, one can easily get interest at 12 per cent per annum on good security, and one can hardly fail to sympathise with the father who, after spending that sum in getting his son an M. A. degree of the Calcutta University, finds that the son cannot even earn the interest on the sum spent. I beg, therefore, to submit that the condition of admission to the Calcutta University ought to be different from that in universities like Cambridge or London, where the sole object of a University education is not to get a living by it. Now, what has been the result of the present system of admission to the Calcutta University? We have a great number of men who are not able to earn a living by their university education and who, having all along thought of university education as only a means of living, are, therefore, discontented and unhappy. Let us now consider what the remedy is. I shall certainly be termed a man of very peculiar views if I suggest that the only way out of the difficulty is to divert the energies of these young men to a different channel. I am convinced that so long as there is this easy way of admission to the Calcutta University by merely passing an examination the present state of things cannot be stopped. I have tried to induce my first two sons, the first to become an agriculturist and the second to become a mining or electrical engineer, and have failed. They have taken the ordinary university course, notwithstanding my firm belief that it will be an exceedingly difficult thing for them to make a living by it. That, I believe, will be found to be the case everywhere. I heard a report that nearly 40 students had joined the mining class of the Maharajah of Kasim Bazar at the beginning of the session, but were dropping off one after another, and why? because the students did not like the discomfort or hardship of the life of a mining engineer. I say emphatically that if we do not take care about this even now the next generation will find it still more difficult to deal with the bread problem. Already, educated Bengalis have taken to dacoity in some cases and I do not know what more is in store for them. We must, therefore, face the question of admission to the University

DUTT, P. N.—*contd.*—DUTT, REBATI RAMAN—DUTTA, PROMODE CHANDRA—FAWCUS, G. E.

of Calcutta in view of these facts, and must not look at the question as if it were a simple academical question, as in other universities. It is mixed up with the social, political, and economic life of the people and, in view of the facts which I have alluded to, there is absolutely no escape from the conclusion that admission to the University of Calcutta, as it stands at present, must be very limited. And the only feasible way of limiting the admission is to hold a competitive examination and select a limited number. It is least irritating and causes the least disappointment to the unsuccessful. It may not be the most satisfactory. The question will necessarily arise, what avenues are to be opened to the students who fail to get admission to the University under the competitive examination? This I shall deal with in my answers to other questions.

DUTT, REBATI RAMAN.

The high school course should give us adequate information on the usual subjects in life so that, even if I cannot follow the collegiate course, I may have a fairly complete stock of useful information. Omission of history, geography, and elements of science has been a serious drawback of late, and I would suggest that Indian history in Bengali, world's geography in Bengali, and books of science in Bengali should be included in the curriculum as compulsory subjects for examination in three papers. With a little elevation of the algebra course we may do away with the additional paper in mathematics, and we may do away with the additional paper in Sanskrit altogether. The book on science will explain the several physical phenomena of Nature that we see very often, as dew, rain, tides, earthquakes, phases of the moon, and give us adequate information on physiology and hygiene. There was once the *Prakritic Bhugol* of Mr. Jogesh Chandra Roy and one can add thereto two or three chapters in physiology and hygiene. This may mean a little stiffening of the matriculation course and, to avoid this, the standard of pass marks may be kept low, *i.e.*, 30 or 33 per cent. and as I shall say in answer to another question, there should be held biennial examinations, a student failing in two or three papers out of the eight proposed—English language 2, Bengali 1, mathematics 2, Sanskrit 1, history 1, geography 1, physical geography and science 1—will appear in those two or three papers six months after. This would mean that college classes would begin biennially. Alternative questions should always be set so that the examinee gets a fair choice, and questions should always be set on the broad and salient features of the subject, neither too long nor too many for the hours of examination. With these changes in the nature of examinations the additional text-books will not necessarily mean an additional burden for the young student.

DUTTA, PROMODE CHANDRA.

The matriculation examination should include the history of England, history of India, elementary science (including hygiene), as compulsory subjects.

In English one book of entirely modern prose should be prescribed as a text-book. The unseens should remain as at present.

FAWCUS, G. E.

I am not satisfied, because admission depends upon the result of a single examination. The principal of a college when making his admissions has no means of knowing anything of the student's school career and it would, therefore, seem that some form of school-leaving certificate is required.

FORRESTER, Rev. J. C.—GANGULI, SYAMACHARAN.

FORRESTER, Rev. J. C.

I am profoundly dissatisfied with the present conditions of admission to the University. If it be decided to maintain English as the medium of instruction in colleges there should be a very considerable raising of the standard of the knowledge of English, *i.e.*, a capacity to write correct, simple English and to speak and understand ordinary English. A large proportion of the first year students is quite unable for the first two terms at least, to profit by the lectures through a defective knowledge of English. Examiners appear to mark too leniently. The matriculation English course is good. The fault lies with the examiners. The mathematical standard is too low; there are too many alternative questions.

GANGULI, SYAMACHARAN.

I am not satisfied with the present conditions of admission to the University of Calcutta. My view of a sound system of education at the present day is the same as that expressed in the inaugural address of President Abbott Lawrence of Harvard University about eight years ago:—"that the best type of liberal education in our complex modern world aims at producing men who know a little of everything and something well". Under the Calcutta University system specialisation commences at the matriculation stage. Geography and history are made optional subjects while a classical language is made a compulsory subject. Hygiene and elementary physics are not among the subjects for the matriculation though they are of vital importance. In my humble opinion, the subjects for the matriculation examination should be English, Bengali, or some other Indian vernacular, mathematics, geography, history of India and of England, elementary physics, hygiene, and some book on civic duties. As a set-off against the proposed increase in the number of subjects I would propose that marks in all subjects be placed on the present footing of marks in the optional or additional subjects, *i.e.*, that they be rejected in making up the aggregate if they do not reach the pass standard, but that their falling below the pass standard would not affect a candidate's passing if the aggregate of his marks, in spite of rejection of marks in one or more subjects, reaches the standard demanded.

I should omit any classical language as a subject for the matriculation examination. A classical language or, optionally, French, German or Persian may well be taken up, I think, after the matriculation stage. Many advocates of the teaching of a classical language in early years lay stress on the disciplinary value of the teaching. But many capable persons, on the other hand, attach more disciplinary value to mathematics and science. As to the value of the matter in classical writings translations can put before the reader of the present day all the valuable matter in classical writings. Many gifted persons have been averse to learning any classical language in their boyhood. Herbert Spencer's aversion to Latin and Greek in his boyhood is well known. I give here another instance, that of Galton, in his own words:— ". . . the character of the education was altogether uncongenial to my temperament . . . I had craved for what was denied, namely, an abundance of good English reading, well-taught mathematics, and solid science. Grammar and the dry rudiments of Latin and Greek were abhorrent to me". (Galton's *Memories of my Life*, page 20.) Sanskrit as a compulsory subject at the matriculation has operated injuriously upon the progress of knowledge in Bengal. I know of Bengali boys who have flown to Latin (an easier language than Sanskrit) to avoid Sanskrit, and many now fly to Pali. If a classical language remains a subject for the matriculation examination it should remain as an optional subject, optional with elementary Physics, for the teaching of which most of our schools will find it hard to provide the necessary appliances.

Exclusion of a classical language from the matriculation course would leave more room than now for attention to English. If, again, as I think it desirable, all the subjects except English were taught through the medium of the vernacular, less time would be taken up by them than now, and so there would be more time for attention to English, a good working knowledge of which is a great necessity for Indian students.

GEDDES, PATRICK—GHOSA, PRATAPCANDRA—GHOSE, Sir RASH BEHARY—GHOSH, BIMAL CHANDRA—GHOSH, DEVAPRASAD—GHOSH, Rai HARI NATH, Bahadur.

GEDDES, PATRICK.

I look back upon the pre-matriculation examination days in Scotland as better than these; but would need space to justify this conviction. I would, however, be satisfied to replace the present Procrustean methods, with their destructive effects on youth, with which I am only too familiar, by the presentment of a personal record of the candidate's studies and experience, with an essay by himself indicating his interests and his aims. I would have these read together, and less in the spirit of the proof-reader marking faults towards exclusion, and more in that of the educational psychologist, open to all reasonable grounds for admission. Oral examination largely as estimation by interview, and this not so much in the spirit of the excluding examiner, as in that of the friendly physician may here be useful. The present methods of admission to the British navy school are in such ways here suggestive; as indeed also are those employed as its graduation tests thereafter.

GHOSA, PRATAPCANDRA.

I think the present age-limit for matriculation should be twenty years in the minimum Sixteen is too tender an age for ill-fed Bengali youths.

GHOSE, Sir RASH BEHARY.

I would require a better knowledge of English in matriculation candidates, and I would also modify the courses of studies for the matriculation so as to make English history compulsory and require every student to take up history and geography.

The rigid rule as to the age-limit now in force should be abolished. There may be an ordinary age-limit fixed for the matriculation, but head masters should be authorised to relax the limit in exceptional cases.

GHOSH, BIMAL CHANDRA.

At present the "one door" system is followed. For purposes of encouragement of schools, educational societies, and philanthropic bodies, examinations and tests of other bodies may be considered equivalent to the matriculation wherever the standard or scheme is considered adequate. For example, the examination of the Bengal National Council of Education—the Faridpur-Antahpur Siksha Society's test examination—may be recognised in the same way that the University accepts Cambridge or Oxford senior and junior locals.

A "many-door" admission will make for the advancement of learning.

GHOSH, DEVAPRASAD.

The present condition of admission to the University of Calcutta is that the candidate must have passed the matriculation examination. That condition may remain, but the curriculum of the matriculation should be changed. I shall deal with this topic in answering question 13.

GHOSH, Rai HARI NATH, Bahadur.

No; best to have old entrance and the method of instruction book. As a matter of fact, it would be best to have most of the old system of pre-university education back, which, in my opinion and experience, produced better men for entry into university courses.

GHOSH, Dr. JAJNESWAR.

No; after matriculation I would give the student a year to prepare for a college course. The institution in which he seeks admission should find out the subjects which he intends to offer for his degree and should prescribe, and, if necessary, arrange, for a certain amount of preliminary reading to be done in them and in subsidiary subjects. At the end of the year it should examine him with a view to test his fitness for advanced work and, if he fails to pass the ordeal, should give him another chance at the end of the second year. But such an arrangement will not work satisfactorily unless every college adopts a definite limit of enrolment.

It may be objected that a preparatory course, like the one suggested above, will raise the age-limit for graduation by one year, and that young Bengalis of moderate means can ill-afford to continue their education longer than they are doing now. But the difficulty will disappear if the age-limit for matriculation is lowered. The kind of training and preparation required for passing this examination will not involve an undue mental strain on boys of fifteen years.

GHOSH, JNANCHANDRA.

I am not satisfied with the present condition of admission to the University of Calcutta. Matriculates should enter the University with a better knowledge of English. At present they have no knowledge of English history. A very few of them have very little knowledge of the history of India and of geography. The study of English history, Indian history, and geography should be made compulsory for all students appearing at the matriculation examination.

Most of our schools are not efficient. University education cannot improve unless the schools are made better.

GHOSH, Rai Bahadur NISI KANTA.

The present condition of admission to the University is the matriculation test. This test may be sufficient for admitting one to collegiate education. But as the standard of their attainment now-a-days has become poorer than what it was before, and has much deteriorated in English and other subjects, it is not desirable that any and every matriculated student should go up for higher collegiate training. Matriculated students may be considered so far well educated for general purposes of education and for entering other branches of occupation than those of pleaders, doctors, etc. But there is no good allowing all of them to go in for collegiate education, specially those who have not the capacity for following the courses they are taught. A secondary test should, therefore, be made, either by any form of examination or by selection from the students by the standard of their marks attained in the matriculation examination, before they are admitted into any college. This may, to some extent, ensure the fitness for their future higher university training and culture. It is not desirable that any and every student who may pass the matriculation examinati n should be allowed to go up for collegiate training and baffled in their pursuit in midway of their collegiate life, and thus cause unnecessary waste of time, energy, and money and become unsuccessful in worldly life.

The insufficient accommodation in various colleges, in comparison with the outturn of matriculated boys, has placed an automatic and indirect check upon the influx of students into colleges. But many amongst those who have been refused a seat were probably the best students left out. I know a certain case where a first division matriculation student has been refused admission into a certain college wherein third division matriculates have been able to find their way.

GHOSH, Rai Bahadur NISI KANTA—*contd.*—GILCHRIST, R. N.

On the whole, my view is not to put a check upon a collegiate education and I am far from it, but, in my view, it is desirable that only promising and brilliant boys should be allowed to go up for higher training and mediocre boys should be left out to choose other profitable branches of occupation in their life as may suit them.

For mass education the present matriculation standard, or even a less stringent one, may be quite sufficient, but for those who are to go up for higher collegiate training and university life selection should be adopted as I have advocated before by some form of secondary test or by selection.

GILCHRIST, R. N.

I am not satisfied with the present conditions of admission to the Calcutta University. I have already, in my answer to question 1, given reasons for this.

The prime necessity for the Bengali student is knowledge of his medium of instruction—English. For the improvement of English radical changes are necessary in our primary and secondary education. Such changes must, from the nature of the case, be gradual, and to give the University a reasonable standard of admission I favour a scheme which will allow for expansion or contraction as developing conditions may demand. What I mean is that as the schools improve the necessity for my measures may disappear. The measures I suggest are :—

(*a*) Immediate concentration on primary and secondary education. This affects the University in two main ways, *viz.*:—

(i) It will give students a reasonable standard of education.

(ii) It implies the necessity of such economy in the University, especially in Government grants.

Such economy, to my mind, should be exercised in the highest stages, *e.g.*, in expensive professorships and expensive research schemes.

(*b*) The creation of a new standard of admission to the University. This should be in two compartments :—

(i) A school-leaving examination.

(ii) A university entrance examination.

These two should ultimately be fused, though the fusion may take many decades.

The school-leaving examination should be approximately the present matriculation stage. Whether it is conducted by Government or the University is a matter of little concern to us here. Personally, I prefer a departmental school-leaving certificate, the University being left to the next, or University entrance, examination. In so much as the school-leaving is a definitely lower stage, *ipso-facto* every University entrance candidate will have a school-leaving certificate, before proceeding to the University entrance examination.

The University entrance examination will, in all subjects save logic and English, be approximately the present intermediate stage. Logic should be left out, and English much improved. To adopt the present intermediate stage in English would not help much as the knowledge of English is still very imperfect at that stage. Between the present matriculation stage (or proposed school-leaving stage) and the present intermediate examination (or proposed university entrance examination) courses should be definitely planned so as to give the maximum opportunity for the student to learn the medium of university instruction. A separate organisation will have to be built up for this purpose, and this organisation should be in selected high schools and in selected colleges. In the first of these the best of the high schools in the district should be given a much improved staff for concentration for the one or two years necessary for the University entrance examination, and certain colleges which teach mainly intermediate work now should definitely be " told off " for this kind of work. For some years these colleges, if affiliated colleges, might be allowed to retain their degree classes, but no concentration should be made on them. In the course of time these colleges would become high schools. No further affiliation for degree work should be granted them, and their intermediate work would have to be

GILCHRIST, R. N.—*contd.*—GOSWAMI, BHAGABAT KUMAR, Sastri.

done under supervision equivalent to the present inspection of schools, intensified. I also hold that there should be an appreciable rise in fees in this new scheme, after the first selective test, the school-leaving examination.

The basis of my argument for this new scheme is simply that discrete problems require discrete treatment. The combined ingenuity of the University and Government has up to now failed to give a good university entrance standard. I, therefore, propose this as a solution to the problem, pending the improvement of our school system.

There are certain dangers, however, in my scheme, which may be surmounted by careful supervision. The new colleges and selected secondary schools must have a staff of definitely proved ability. This raises another large problem. How is the staff to be secured? At present there is little to choose between many teachers in high schools and teachers in intermediate university classes as regards qualifications and ability. If the new classes are to serve their purpose then a minimum rate of pay must be given so as to secure the best material available, and the supply of trained teachers must be kept up by the training colleges. The development of training colleges goes hand-in-hand with this scheme, as well as with the major scheme of general improvement in the school system. In addition to training colleges of the David Hare type I consider that district colleges like Krishnagar could well be used for training purposes for all grades of teachers. Numbers, again, should be strictly limited in these courses. The selected high schools would suffer, for example, were the second-grade colleges to continue on a collegiate basis; the freer life and opportunities would take boys away from the schools to the colleges, enabling colleges to make large incomes from fees, at the same time defeating the purposes of the new schools. A definitely high standard of examination, too, should be maintained, and, in that examination should be included, if possible, an oral examination in English.

Another problem arises in connection with this special course. If the University course starts at the present third year the time of the degree stage should be lengthened. This, I consider, should be done. After entering the University the minimum time for passing the B.A. degree should be three years. An honours degree should be four years in duration. This course will bring the future B.A. into line with the present M.A. The B.A. honours course will be the supreme examination degree of the University. This involves the disappearance of the present M.A. classes altogether. The M.A. degree, I consider, should be given either for independent work or simply for payment of a fee. The post-B.A. degrees, whether it is the M.A. or a doctorate, may be arranged with ease once the B.A. is established on a reasonable basis. The details of courses, etc., are for the University authorities themselves to work out.

The above is a general scheme applicable to any form of university organisation in Bengal, but any one university might evolve courses of its own provided a good standard is preserved. One of the weaknesses of the present University is that it has no competitors. A university with a consistently good standard of degree is bound, in course of time, to make its influence felt for good; on the other hand, a university which is the only source of education in an area the size of Bengal and Assam need not trouble about its standards. It is the only source of supply for the Government services and the bar. The university system of the West has certainly benefited by the truth of the survival of the fittest.

The new matriculation should, at the outset, be managed by a joint board of examiners.

GOSWAMI, BHAGABAT KUMAR, Sastri.

If English must be maintained as the only medium for imparting instruction in the college classes a better acquaintance with English than is at present met with in college students is, of course, necessary. But the system of choosing a foreign language as the sole medium in any scheme of high education is most unnatural, and reform, therefore, must lie in the direction of changing the medium.

GOSWAMI, Rai Sahib BIDHUBHUSAN—GOSWAMY, HARIDAS—GUHA, JATINDRA CHANDRA —GUHA, RAJANIKANTA.

GOSWAMI, Rai Sahib BIDHUBHUSAN.

No; successful candidates for the matriculation examination, most of them, are badly equipped for receiving higher training in colleges. Their knowledge of most of the subjects, especially English, is poor. Steps should be taken — a movement in that direction is already afoot—to improve their knowledge of the English language and its literature, as far as practicable. To attain this end the course of studies in schools should be revised, and should be so regulated that students may, even at the sacrifice of extent, acquire a grounding in English especially, in the other subjects generally.

GOSWAMY, HARIDAS.

No; at present, nearly all students who matriculate flock to the University—without consideration of their individual bent or their special talents or their fitness for university training or of their future life and thus crowd the colleges and impair the efficiency of collegiate training. Corporate life, proper exercise of the teacher's influence upon the students, and intimate relation between the teacher and the taught are thereby rendered impossible. The majority of these students are, by their school training or their own nature or the circumstances of their lives, unfit to receive university training. There is, thus, a waste in education.

Besides the crude intellectual test a process of selection should be devised and only the best students, not necessarily the most clever ones, should be passed on to the University.

Education should be like a tapering pyramid, general at the base and special at the top. The first six years of a secondary school should, therefore, provide for a fairly general and liberal education. So that the boys leaving the school at that stage, say at sixteen or seventeen, after such tests as may be devised, may enter the " subordinate walks of professional, and the higher grades of industrial, life ". I would prolong the school course by two or three years more during which the student would receive a more or less specialised training, according to his tastes, talents, and activities, at the University, in the humanities or in the sciences, in commerce or in technology.

This, or some such, process would relieve the present congestion in the colleges and solve many difficulties, such as those of accommodation, residence, supervision, and render an intimate relation between the professor and the pupils possible.

GUHA, JATINDRA CHANDRA.

The matricultion examination, which is at present the only door of admission into the University, should be abolished. It may be replaced by a college test to which only those who have read up to the highest class of a high school should be admitted. For those who do not like to come to the University a school-final examination may be instituted by the Education Department of Government.

GUHA, RAJANIKANTA.

No; I would suggest the following changes :—

(*a*) Two text-books in English should be prescribed for the matriculation examination, one in prose, and the other in poetry, the questions set in one of the papers being confined to these books. The present system of recommending a large number of books for study has produced a distinctly deleterious effect. No one can expect to be well-grounded in a foreign language without being thoroughly drilled in a few books carefully selected and taught. The method that is followed in the public schools of England in the teaching of Latin should be kept in view in teaching English to Indian boys.

(*b*) English history should be made compulsory for all matriculation candidates. The study of English literature without a knowledge of English history is a task which unduly taxes the energies of our young men and unnecessarily adds to the labour of the teacher in the class-room.

GUNN, J. W.

No; the standards are far too low. It is a common complaint among college professors that students are not sufficiently advanced in English to be able to follow lectures perfectly and to derive anything like full benefit from them; consequently, much elementary work has to be done in colleges, which, in England for example, would be done in the schools. I am afraid there are at present very few schools in Bengal where subjects could be taught efficiently up to the I.A. standard, but the experiment—on a small scale in the first instance—is worth a trial. Given a sufficiently well-qualified staff it is certain that, in the comparatively small classes of a school, boys would benefit far more than they do from a system of college lectures which are beyond their comprehension.

GUPTA, AMRITA LAL.

The conditions of admission to the University are not satisfactory, and the following may be taken into consideration :—

(*a*) The restrictions with regard to age are artificial and should be withdrawn. It is undesirable that students of fine calibre should be arbitrarily prevented from entering the University simply because they are not so many years and months old.

(*b*) The standard of the matriculation examination should be raised not by making the examination stiffer, but by effecting the following desirable changes:—

(i) Some text-books in English should be prescribed for careful study by the matriculation students.

(ii) An elementary knowledge of the histories of England and India and geography should be made compulsory.

(iii) There should be two papers in the vernacular—one in general composition, essay, etc., and another on some text-books prescribed for critical study.

GUPTA, BIPIN BEHARI.

I am not satisfied with the present conditions of admission to the University. Students must be expected to have some working knowledge of English literature, English and Indian history, geography, elementary physics, and chemistry, botany, or geology, mathematics, Sanskrit, or Arabic, and the vernacular literature of the province. As matters stand, in the first year college classes in the arts department the human material which the professor is expected to mould under the present University regulations is most disappointing. The student, who is absolutely innocent of all knowledge of geography and English history, is expected to fully understand Milton and Addison and Froude.

As I indicated before, let the courses of study in secondary schools be extended to the present intermediate stage; let there be a more intelligent selection of subjects of study; let the University hold an examination of particular groups of schools in an area, with the aid of the professors in the colleges of the University; and then selection may be made from among the candidates—some of whom may rest satisfied with a school final preparatory to some other examinations which will enable them to enter service, while others will enter the University, for receiving the highest training.

GUPTA, UMES CHANDRA—HALDAR, Dr. HIRALAL—HALDAR, UMES CHANDRA—HAQ, Khan Sahib Maulvi Kazi ZAHIRAL—HARLEY, A. H.

GUPTA, UMES CHANDRA.

Yes. The conditions of admission to the university are satisfactory.

HALDAR, Dr. HIRALAL.

My answer to this question is in the negative. The matriculation standard is, in my judgment, too low. I would suggest a return to the curriculum and standard of the old entrance examination.

HALDAR, UMES CHANDRA.

No; the history of England, elementary physics, chemistry, and geography should be added to the compulsory subjects of the matriculation examination. Thus, English, mathematics, classics, vernacular, elementary science, history, and geography should all be compulsory. Without an elementary knowledge of English history, students cannot understand English literature in which there are frequent allusions to English history. The English text should be a little stricter. Bengali should be taught as a literature and matriculation questions on that subject should be set in order to test a candidate's knowledge in Bengali literature and composition. The standard in mathematics should be higher. The first year classes of a high school should be in charge of well-paid trained graduates. For want of an adequate and well-qualified staff head masters are obliged to put ill-paid and ill-qualified teachers in charge of classes VIII, VII, and VI, which should, in the interests of education, be entrusted to trained graduates.

For the matriculation examination suitable text-books in English should be prescribed. The present system of defining the syllabus in English encourages cramming to a large extent. Books on essays, unseen passages, phrases, and idioms are memorised, which do more harm than a prescribed text-book. In the case of a text-book boys try to imitate the style of the author. The absence of a text-book originally intended to discourage cramming has rather encouraged a worse evil, namely, mere guess work. There does not appear any necessity for optional subjects.

HAQ, Khan Sahib Maulvi Kazi ZAHIRAL.

The present conditions of admission to the University of Calcutta are too general, the same kind of test being considered sufficient for entrance into any, and every, career. The training received by students in high schools is likewise chiefly one-sided and consequently defective.

I would suggest that high schools should be divided into different groups, each adopting a particular course of studies for training students for a particular career, and with a separate test for each.

HARLEY, A. H.

It would, undoubtedly, be to the great advantage of the University if the triple division of passes were abolished and only one grade of pass were recognised. The number of students passing in the second and third divisions is comparatively small and it would be better if the third division at least were done away with, and the minimum pass marks raised to 40 per cent and that of the first division to 60 per cent.

I would suggest that the school curriculum comprise a classical and a modern course, students being given the option about four years before the University entrance examination.

HARLEY, A. H.—*contd.*—HAZRA, JOGENDRA NATH—HOLMES, Rev. W. H. G.

I would propose the following courses :—

A.

Classical course.

Vernacular	Mathematics	1 Classical language.	1 Modern language, *i.e.*, English with history and geography.	1 Kindred classical language.

B.

Modern course.

Vernacular	Mathematics	1 Classical language.	1 Modern language, *i.e.*, English, with history and geography.	1 Dynamics or botany or other exact science.

As students of the outlined matriculation stage would have qualifications not inferior to those of the present I.A. stage and, therefore, be competent to enter business-houses, I would further suggest that those students who read up to the matriculation stage, but do not intend to enter the University, and, therefore, do not desire an additional classical language or an exact science, should be obliged to take up a course of commercial English (including book-keeping, précis-writing, etc.).

I would suggest as a general standard for classical languages at the matriculation stage acquaintance with one or more of the works of at least four authors possessing, as nearly as possible, the qualities which commend Thucydides and Sophocles, for instance, as suitable Greek authors for the entrance stage in British universities. The standard in the other subjects should be raised proportionately.

This standard would, undoubtedly, raise the University entrance age. The average would eventually settle itself at 18—19.

HAZRA, JOGENDRA NATH.

The present condition of admission to the University is not satisfactory. This is due mainly to the defective training candidates receive in high schools. For the improvement of high schools they should be thoroughly reorganised, and trained teachers should be appointed. Steps should also be taken for the development of the faculties of boys harmoniously in different directions. The main defect is the want of adequate command of the English language, in which the work of the University is carried on. The University students, with their defective knowledge of the English language, cannot understand with ease the text-books prescribed in some of the subjects. At present, no text-book in English literature is prescribed for the matriculation. The reintroduction of a fixed text-book, with the safeguard that there should be no cramming is desirable.

Another cause of their deficiency on entrance to the University is the defective training received in the vernacular. It is never seriously taught or studied except in the lowest classes before boys begin to study English. This neglect of the vernacular produces a serious defect in the training of a boy. He continues to think and speak ordinarily in his vernacular in which he has not been taught to express himself accurately and systematically. As what we write or speak in English is a mere translation of our thoughts in the vernacular we fail to express ourselves in English very clearly and in good order unless this habit is acquired early in the vernacular. Thus, a great part of the benefit of the training at college is lost.

HOLMES, Rev. W. H. G.

The present conditions of admission to the University of Calcutta admit to a course which is not up to university standard. The work now done during the first two years

of university life ought to be done at school. I suggest that only those should be allowed to enter the University who have passed an examination which would show their fitness to begin something of the kind of work which is now set for the B.A. I suggest also that only those who definitely have put down their names as seeking admission into a specified college should be allowed to sit for the examination.

Under the present system many present themselves for the examination who have no intention of seeking university education. They sit to qualify themselves for appointment to certain Government posts. The effect of such huge numbers presenting themselves has been that the standard of examination, undoubtedly, has deteriorated. Any boy placed in the first division ten years ago was far superior to hundreds of boys placed in the first division now. Nor is it possible, when the numbers are what they are, to maintain one standard. The examiners are necessarily so numerous that many are without experience, and head examiners, however experienced, cannot cope with so titanic a task as maintaining one standard in the marking of some eighteen thousand papers. I know of students who, having passed the matriculation in the first division, have been most regular and industrious, and yet fail to pass the intermediate examination.

It is worth considering whether it would not be wise to abolish the matriculation examination and allow each college to settle its own conditions of admission. The first university examination would then be held at the end of the first year. Colleges would thus only admit students capable of passing the university test after a year of college teaching, and would be on their guard against the admission of incapable applicants and of those faultily trained in the schools. Once separate the university examinations from the question of Government employment and there will be no longer unmanageable numbers to handle.

HOSSAIN, WAHED.

Generally speaking, the present conditions of admission to the University are not satisfactory for the following reasons :—

(*a*) Most of the students leave high schools before they are fit for entering upon a university career. Their knowledge of English remains so defective that they can hardly follow college lectures with profit.

(*b*) In colleges our professors meet with great difficulty in making their lectures on principles and theories intelligently understood by students, and are obliged to teach them the language itself like schoolmasters. This is school work which should have been done in the secondary stage of their education.

(*c*) The unsatisfactory state of school education is responsible, to a great extent, for the consequences.

I would, therefore, suggest that school education should be placed on a sound footing. The changes necessary for that purpose are as follows :—

(i) Simplification of courses of study and avoidance of numerous text-books and multifarious subjects.

(ii) Paying more attention to real study, which should not be dominated by too many examinations—more than what is necessary for testing the mastery over the subject taken up by the student.

(iii) Employment of able and competent men on the teaching staff. The profession of teaching is not at all attractive. The pay and prospects of teachers are so very poor that competent men can hardly be drawn to it. This subject has been discussed and defects pointed out in a speech of mine and I respectfully invite the attention of the Commissioners to it. (See Appendix.)

(*d*) The necessity of training men for good teaching is now recognised. "There was a time even in England, when old broken down soldiers or men who had failed at everything else were thought good enough to be put in charge of village schools. But that is no longer. Modern teaching is a highly technical

profession, requiring skilled and trained men. There are, of course, teachers who are born, and not made, but they are rare : the average man has to learn the art." Our schools sadly want trained teachers and, unless such teachers are made available, the quality of school education will not improve.

APPENDIX.

There has been a cry for competent teachers and efficient teaching. But the pay of teachers and professors is too low to attract qualified and competent men. Ordinarily, the initial pay of a teacher of the lower primary school ranges from Rs. 10 to Rs. 15, that of a middle English school from Rs. 15 to 25, and of a high English school from Rs. 35 to 50. Probably the cost of living is not the standard of their pay, but their educational qualifications. But, high qualification, or low qualification, can a man of some education and status in society live with his family on such a poor income ? An orderly in an office gets Rs. 12 with *bhatta* (allowance) of Re. 1 or Rs. 2 per mensem ; an illiterate coolie sirdar (headman) earns more than Rs. 30 a month ; but a matriculated youth is asked to accept Rs. 10 ; and a graduate Rs. 35 to begin with. Can a person who has any education and sense of self-respect stoop to accept such a "miserably mean" pay ? Formerly, the initial pay of a graduate was Rs. 50 per mensem. But, with the cry of competent men for efficient teaching, his pay has been reduced to Rs. 35 !!

On the other hand, the prospect of the teacher is as gloomy as his pay is low and insufficient to maintain himself and his family. Mr. Mackenzie, Principal, Training College, Allahabad, observed in his presidential address : "The question of questions, therefore, is how to attract to the teaching profession men of character and ability .....The obvious way is by recognising that good teaching is worth paying for. If we judge by the salaries at present given to teachers the average school committee values the work of an assistant master as lower than that of a second-grade clerk, while that of the headmaster is, if we again judge by the pay sheet, estimated at something between that of a public works overseer and an inspector of police. Can we wonder, then, that of the graduates who enter the teaching profession over 70 per cent is men with third-class degrees." Speaking on the same subject Mr. Martin, Professor, Islamia College, Lahore, observed thus : "The teaching profession is notoriously underpaid. An untrained teacher may get from Rs. 10 to Rs. 20 a month ; one holding a junior Anglo-vernacular certificate about Rs. 40 ; senior Anglo-vernacular Rs. 30 to Rs. 60 ; and a bachelor of teaching Rs. 70 to Rs. 90." This is the state in the Punjab. In Bengal the position is almost the same. Mr. Martin continued :—"Can we wonder, then, that this profession does not attract our best educated men ? From my own experience, I found that our Muhammadan graduates avoid the educational profession as far as they can, and prefer to take a small post in the police, irrigation, secretariat, or almost any other Government department. School teaching is regarded as a temporary makeshift, or a last desperate resort. Many of them, on getting their degrees, will accept posts as teachers for a year or two ; but that is only to fill in the time until they get a chance of employment in some better paid profession. Many of these, even, who go to the trouble of joining the training colleges and getting their B. T. degrees do not intend seriously to settle down to teaching as their profession and some of bachelors of teaching never become teachers at all."

Speaking on the status of the school teacher, Mr. Martin observed as follows : "Even more necessary than the improvement of his pay is the improvement of the social status of the school teacher. At present, schoolmasters in India are, I am afraid, somewhat looked down upon and treated as an inferior caste. They certainly have not the position and respect they have in England."

Mr. H R. James in his *Education and Statesmanship in India* says :—"In Great Britain the school has an easy primacy, and the special pride of England is her public schools, rather her universities.....The names of English schools are world famous. Whoever in India has heard the name of a great Indian school ? If names great in the field of education are thought of in England they are the names of great schoolmasters that are thought of first—Colet, Mulcaster, Bushy, Arnold, Thwing

HOSSAIN, WAHED—*contd.*—HUNTER, M.—HUQ, The Hon'ble Maulvi A. K. FUZLUL—HUQUE, M. AZIZUL—HUQUE, Kazi IMDADUL.

Ridding, Aherand. Why are there no similar names in India ? Why should it seem strange to speak even of a great schoolmaster ?..... We need in India to think more worthily of schools and schoolmasters. The present hope for higher education lies in such a raising of high schools in tone, in organisation, in equipment as would not only set university education on a sound foundation, but would also make the schools themselves a real training-ground in life."

HUNTER, M.

The present standard of admission to the University, while satisfactory in most subjects, is far too low in respect of the knowledge of English demanded. This lack of knowledge is mainly on the practical side. Few students when they first join the college are able to follow an ordinary lecture given slowly in simple English, and a considerable proportion experience grave difficulty in doing so throughout their career. It is to this reason mainly that the notes of lectures taken by the students are so unsatisfactory ; it is quite impossible for the majority, and not easy even for the best students, to follow a lecture and, at the same time, take down the essential points. The schools seem to devote far too much time to the niceties of English grammar (a subject very easy to examine on), and, the result is that a student who cannot write a simple sentence in English correctly can parse or analyse a quite difficult paragraph, an accomplishment denied to most Englishmen except schoolmasters and schoolboys.

HUQ, The Hon'ble Maulvi A. K. FUZLUL.

The answer to the first part of the question is in the negative.

The various abuses which have been noticed during recent years in the affairs of the Calcutta University are due to the fact that the University has been called upon to perform functions almost physically impossible. And this expansion in the work of the University is bound to go on steadily in spite of any artificial drawbacks that may be put on the advance of education. If my suggestion conveyed in my answer to question 4 (ii) be accepted changes will necessarily be brought about by the establishment of so many different universities in the presidency but, in case there are no more than two universities in the Presidency, I would suggest that the task of examining boys as to their fitness for a university course of training be taken away from the University. I do not think I am called upon to suggest my scheme in detail.

HUQUE, M. AZIZUL.

Yes; I would retain the present conditions of admission to the University of Calcutta, except that I would make changes, as proposed before, in the matriculation and intermediate standards.

HUQUE, Kazi IMDADUL.

The matriculation standard ought to be raised. At present, matriculates are very deficient in their knowledge of English, and also of general subjects, so that, in most cases, their attainments do not prove to be adequate for the reception of college education. To my mind the matriculation standard should be raised to something like the present intermediate standard, every matriculate having a good grounding in the following subjects :—

(*a*) English, particularly the use of the language.
(*b*) Vernacular literature.
(*c*) Mathematics, including some elementary mensuration, surveying, and mechanics.
(*d*) Logic, elementary.

(*e*) A classical language.
(*f*) History of India, and a very brief study of the history of the world, with some special reference to the history of England, and of Islam.
(*g*) Geography, general geography of the world with special reference to India, including a fairly thorough study of physiography.
(*h*) Besides these seven the candidates should take up one of the following alternatives :—
(i) Advanced mathematics, including higher algebra, trigonometry, and conic sections, with some elementary study of statics and dynamics.
(ii) Advanced classical language.
(iii) Advanced geography and physiography.
(iv) Advanced history.
(v) Elementary science, of which there may be several alternative groups, *e.g.* :—
(A) Physics and chemistry.
(B) Biology, physiology, and hygiene.
(C) Geology and mineralogy,
and so forth.

If the matriculation standard is raised thus far the colleges need not have any I.A. or I.Sc. classes at all. The degree course may then be one of three years instead of two.

The subjects, as far as possible, should be taught through the medium of the vernacular. It should be made compulsory for every school to provide for the teaching of at least one group of scientific subjects. Further, it is desirable to provide for complete education in the vernacular. English is necessary for public service and certain classes of business; but there are men who would want to acquire learning for the sake of learning alone, without any ulterior aim of service or business. For them there ought to be a complete course, up to the end of the university career, in the vernacular. In the matriculation these candidates may be given a more advanced course in the vernacular language and literature and a more elementary course in English.

HYDARI, M. A. N.

Speaking generally, and without reference to Bengal in particular, I am not satisfied with the matriculation curriculum and would suggest a scheme analogous to the Madras school leaving certificate scheme, with the modifications which have been, or are, proposed to be introduced for the Osmania University in Hyderabad, a draft sketch of which is appended.

Preliminary sketch of the scheme of examinations for graduation in the faculty of arts of the proposed Asmania University.

COMMITTEE :

(*2nd July, 1917, to 17th July, 1917.*)

1. Mr. M. A. N HYDARI, B.A., Secretary to Government, Educational Department.
2. Mr. SYED ROSS MASOOD, B.A., I.E.S., Director of Public Instruction.
3. Mr. N. G. WELINKAR, M.A., LL.B., Chief Inspector of Schools.
4. Maulvi HAMID-UD-DIN SAHIB, B.A., Principal, Dar-ul-Ulum.
5. Mr. H. W. SHOWCROSS, M.A., Principal, Government High School.
6. Mr. FAZLE MAHOMED KHAN, B.A. Principal, City High School.
7. Mr. ABDUR RAHMAN KHAN, A.R.C.S., B.Sc. (London), Professor of Science, Nizam College.
8. Mr. KADIR HUSAIN KHAN, M.A., Professor of History, Nizam College.
9. Maulvi ABDUL HAQ SAHIB, B.A., Inspector of Schools.
10. Mr. ABDUL AZIZ KHAN, B.A., Assistant Director of Public Instruction.
11. Mr. S. MOHIUDDIN, B.A., Bar.-at-Law, Assistant Secretary to Government, Educational Department.

HYDARI, M. A. N.—*contd.*

THE MATRICULATION EXAMINATION.

Before admission into the University a candidate shall have to pass a public examination in the following subjects :—

(i) English, consisting of two papers—

(*a*) Seen (from one prescribed book of prose and one prescribed book of poetry).
(*b*) Unseen (consisting of an essay in English and translation into English from Urdu, Telugu, Marathi, Kanarese, or Tamil).

(ii) History of England and India.
(iii) Geography of the world, with special reference to India.
(iv) Mathematics—

As in the Bombay Matriculation, with elementary mensuration added.

(v) Any one of the following languages :—

Arabic (of the same standard as in the Maulvi examination at present)
Sanskrit.
Persian.
Telugu.
Marathi.
Kanarese.
Tamil.

He shall have to produce a certificate of a high school recognised by the Osmania University of having satisfactorily completed a course in the following subjects—

(1) Urdu.
(2) Natural science (as prescribed by the Hyderabad school-leaving certificate board).
(3) Moslem theology or Hindu ethics.
(4) Drawing.
(5) Physical training.

THE INTERMEDIATE EXAMINATION.

A candidate will be entitled to appear for the intermediate examination after two years' study in a college recognised by the Osmania University. The subjects for the examination will be the following :—

(i) English (four papers).
(ii) Any three subjects from any one of the three following groups :—

Group A.

(1) Greek and Roman history.
(2) English history (political and constitutional).
(3) Indian history and administration.
(4) European history (470—1878 A.D.).
(5) Islamic history (up to the fall of Granada and the fall of Baghdad).
(6) Economics (with special reference to Indian questions).
(7) Geography (commercial and regional).
(8) One of the following modern languages :—Urdu, Telugu, Tamil, Kanarese Marathi, French, Persian.
(9) One of the following classical languages :—Arabic, Sanskrit, Latin, Persian (unless already taken under 8).
(10) Logic (deductive and inductive).

Group B.

(1) Physics.
(2) Chemistry.
(3) Biology.

HYDARI, M. A. N.—*contd.*

(4) Pure mathematics	Pure geometry, algebra (including the binomial theorem), trigonometry (up to De Moivre's theorem), analytical (up to general equation of the second degree) and geometrical conics (important properties).
(5) Applied mathematics	Statics, dynamics, hydrostatics, and differential calculus (rudiments).

Group C.

(1) Logic (deductive and inductive).
(2) Psychology.
(3) One of the following classical languages :—Arabic, Sanskrit, Latin, Persian.
(4) Economics (with special reference to Indian questions).

THE B. A. EXAMINATION.

A candidate will have to pass an examination in the following subjects after a course of satisfactory attendance in a college recognised by the Osmania University for two years after his having passed the intermediate examination :—

(i) English (four papers).
(ii) One of the following schools :—

(*a*) Languages.
(*b*) Science.
(*c*) History.
(*d*) Philosophy.
(*e*) Law.

(i) *English*—(Compulsory)

Four papers, as follows :—

(1) Essay and précis writing.
(2) Explanation of unseen passages from modern authors.
Principles of criticism and their application as, *e.g.*, in some such small book like Raleigh, Worsfold, Pater, or Hudson.
(3) Detailed study of prescribed authors—Prose.
(4) Detailed study of prescribed authors—Poetry.

(ii) (*a*) *Languages*—

One of the following classical languages :—

Persian, with elementary Arabic.
Arabic.
Sanskrit.
Sanskrit or Latin.

And one of the following vernacular languages :—

Urdu (with Hindi Bhasha).
Telugu.
Marathi.
Kanarese.
Tamil.
Persian (if not taken as a classical language).
French.

A knowledge of philology and the history of the development of culture in the languages selected will be required.

HYDARI, M. A. N.—*contd.*

(*b*) *Science*—

One of the following branches :—

Physics, including a separate paper in mathematics.
Chemistry, including a separate paper in physics.
Mathematics (pure and applied).
Natural science (one of the following three as principal and the other two as subsidiary) :—

Botany.
Zoology.
Geology.

(*c*) *History*—

(1) Political science.
(2) Economics.
(3) Indian history (detailed knowledge of any one of the three periods).
(4) English history (constitutional history).
(5) One period out of any of the following histories that he may have taken for the intermediate :—

European history.
Islamic history.
Greek and Roman history.

(*d*) *Philosophy*—

(1) Logic and theory of knowledge.
(2) and (3) Ethics (psychological and sociological groundwork and theory).
(4) Psychology.
(5) History of European philosophy, ancient and modern.
(6) A particular Oriental philosopher or school of Oriental philosophy.

(*e*) *Law*—

Syllabus under consideration.

N.B.—1. A B. A. in law will be entitled to a degree in the faculty of law qualifying him for practice if he is successful in an examination to be held a year after graduation.

2. A graduate in any other "school" will be allowed to go up for a degree in the faculty of law qualifying him for practice two years after graduation in an examination more extensive than that in Note 1, above.

Preliminary sketch of the scheme of examinations and the curricula for graduation in the faculty of theology of the Osmania University.

COMMITTEE :

(*6th and 7th October, 1917.*)

1. Maulvi HAMID-UD-DIN, SAHIB, B.A., Principal, Dar-ul-Ulum.
2. Maulvi HABIBUR RAHMAN, Professor of Theology, Dar-ul-Ulum.
3. Maulvi ABDUL WASEY, Assistant Professor of Theology, Dar-ul-Ulum.
4. Maulvi ABDUL QADIR, Professor of Arabic Literature, Dar-ul-Ulum.
5. Maulvi ABDUL HAI, Assistant Professor of Arabic Literature, Dar-ul-Ulum.
6. Maulvi SYED SHER ALI, Professor of Philosophy and Logic, Dar-ul-Ulum.
7. Maulvi MOHAMMAD RUKNUDDIN, formerly Mufti, Madrasa Nizamia, at present Tutor to the Princes.
8. Maulvi MOHAMMAD MURTAZA, Member of the Old Boys' Association, Dar-ul-Ulum and Secretary, Hyderabad Educational Conference.
9. Maulvi Haji Hafiz MOHAMMAD ALI SHATTARI.

HYDARI, M. A. N.—*contd.*

THE MATRICULATION EXAMINATION.

(*The Faculty of Theology.*)

Before admission into the University (in the faculty of theology) a candidate shall have to pass a public examination in the following subjects :—

(i) English (consisting of two papers)—
  (*a*) Seen (from one prescribed book of prose and one of poetry).
  (*b*) Unseen (consisting of an essay in English and translation into English from Urdu).
(ii) History of England and India.
(iii) Geography of the world, with special reference to India.
(iv) Mathematics.
  As in the Bombay matriculation, with elementary mensuration added.
(v) Arabic language.
(vi) Moslem theology.

He shall have to produce a certificate of a high school recognised by the Osmania University for having satisfactorily completed a course in the following subjects :—

(1) Urdu.
(2) Natural science (as prescribed by the Hyderabad school-leaving certificate board).
(3) Drawing.
(4) Physical training.

THE INTERMEDIATE EXAMINATION. (عالم)

A candidate will be entitled to appear for the intermediate examination (faculty of theology) after two years' study in a college recognised by the Osmania University.

The subjects for the examination will be the following :—

(i) Arabic language (four papers)—
  (*a*) Prose, selections from مُقدمه ابن خلدون
  (*b*) Poetry (باب المراثي و الادب -) حماسه
  (*c*) Rhetoric and prosody 2 نهاية الا يجاز - 1. عروض المفتاح
  (*d*) Composition in Arabic

(ii) Fiqh and Usul (with elementary logic)—
  شمشية .3 - نور الانوار .2 - (النصف الاول) شرح وقاية .1
(iii) Hadis and Usul-i-Hadis نخبة الفكر .2 - موطا (امام محمد) .1
(iv) Tafsir الهداية الى الصراط المستقيم
(v) Aqaid, with elements of metaphysics
  الهيات زبدة الحكمة .2 - شرح عقايد للنسفي .1
(vi) English (two papers)—
  (*a*) Essay and composition.
  (*b*) A paper on a prescribed book bearing on Islamic subjects.

THE B. D. EXAMINATION. (فاضل)

A candidate will be entitled to appear in the B. D. examination after a course of satisfactory attendance in a college recognised by the Osmania University for two years after his having passed the intermediate examination in theology.

HYDARI, M. A. N.—*contd.*—IBRAHIM, Khan Bahadur MUHAMMAD.

(i) Arabic language and literature (four papers) :—

(*a*) Prose :—

(1) Selections from [(١٠) مقامات] حريري

(2) اسرار البلاغة

(*b*) Poetry :—

(1) The rest of حماسه

(2) Selections from متنبى

(3) قسبعة معلقة

(*c*) Rhetoric. نقد الشعر

(*d*) Composition in Arabic.

(ii) Fiqh and Usul :—

(1) النصف الآخر) هداية

(2) (وضيح

(3) (امام محمد) كتاب الحجج

(iii) One of the following subjects :—

(*a*) Tafsir .—

(1) جلالين

(2) (سورة بقره) مدارك

(3) (سيوطي) اسباب النزول

(4) (نحاس) ناسخ و منسوخ

(5) الفوز الكبير

(*b*) Hadis and Usul :—

(1) ترمذي

(2) كتاب الصلوة - up to بخاري (included).

(3) موضوعات سيوطى

(4) شرح نخبة الفكر

(*c*) Kalam and Usul-ud-din :—

(1) شرح طوالع

(2) (القسم الاول) حجة الله البالغه

(iv) English (two papers) :—

(*a*) Essay and composition.

(*b*) A paper on a prescribed book bearing on Islamic subjects.

IBRAHIM, Khan Bahadur MUHAMMAD.

No; only a limited number of seats is allotted to Muhammadan students in every college. The gates of the University might have better been altogether shut against the Muhammadans of a province where the percentage of the Muhammadan population is 52 than this deplorable fact that only a limited number of seats should be allotted to them. Either the University should insist upon the reservation of half the number of seats allowable in each case for Muhammadans or, if that is too much, Government should raise the Calcutta Madrassah to a first-grade college and turn the Hooghly College, which is associated with the sacred name of the late Haji Muhammad Mohsin, into a Muhammadan residential college and open other colleges for Muhammadans as necessity may arise in future for them.

IMAM, The Hon'ble Justice Sir ALI—IRONS, Miss M. V.

IMAM, The Hon'ble Justice Sir ALI.

I am not satisfied with the present matriculation examination of the Calcutta University. It is certainly easier to pass the matriculation than the old entrance examination used to be. But, at the same time, the student is much less prepared to take up a university course now than he was in the old days. Whatever may be the claims of the vernaculars the English language and English literature have to be the most predominant subjects of instruction in the universities. I do not wish to be mistaken in this matter. A development of the vernaculars, and a sound knowledge of them, is also a growing necessity, and a time may come when all the sciences may more profitably be taught in the vernaculars. I fully realise that it would be a great saving of time and labour to teach the sciences in the vernacular. But, side by side with this and other similar considerations, it should not be forgotten that the English language and its magnificent literature have done more to expand the Indian mind during the last fifty or sixty years than any one thing else to which the Renaissance, which is visible in every department of Indian life could be attributed. The vernaculars, however beautiful and necessary in themselves and however much capable of fresh developments, are, at the highest, merely provincial. While in some provinces there is a multiplicity of vernaculars the English language is the one language common to all the provinces. It has served as a great bond of unity in this country. In the future it is destined to bind India in closer ties with the other parts of the British Empire, Great Britain, and the Colonies alike. A training in the English language is not merely necessary on Indian national grounds, but also in view of the high destiny that seems to be unfolding in the near future.

The old entrance examination imparted a higher degree of knowledge of English literature than the present-day matriculation does. The knowledge of English history that was deemed essential under the old system opened to the Indian mind a new conception of life and thought for which he could find no parallel in the language and the literature of the ancient Hindu times, nor in the literature of Persia and Arabia that connected this country with Central and Western Asia. With the disappearance of the knowledge of English history there has been not merely a lowering of the knowledge of the English language, but there has also been a disappearance of the high standard of public morality that the English nation has displayed for the last two centuries or so. This, to my mind, seems to be a grievous loss. The disappearance of the teaching of geography from the matriculation examination has been another mistake. The matriculate of to-day is hardly able to follow the various phases of the great world-war that is raging all round us. Without geography the outlook on life is narrow. This, too, seems to me to be a serious mistake. In the old days, when I was a lad at school, I remember some sort of attempt used to be made to impart to us elementary knowledge of the general outlines of universal history. We did not learn much, but we did get to know that great nations and peoples had existed in the past. And we got some sort of idea of, at any rate, the great political revolutions that have taken place from time to time. Thus equipped we were the better able to take up collegiate instruction. To-day the matriculate knows so little of the English language that he is hardly able to follow lectures, and has to do in the first two years of life at college what he should have done before he entered the University.

Another direction in which I would like to see a reversion to the old standard is the question of age. I do not at all understand why sixteen has been fixed as the minimum age for the matriculation. In my circle of friends and acquaintances I find that those who have been able to do anything in life, and were connected with the universities, passed their entrance examination in the fifteenth year, or even earlier, with no particular detriment to health. Any fixing of standard with regard to age seems to be absolutely unnecessary. Some boys develope earlier than others, and the clever boy should not be penalised for the benefit of his less clever compeer.

IRONS, Miss M. V.

In the existing University system teaching is unduly subordinate to examination. Teaching, whose aim ought to be the culture of the intellectual faculties, has for

IRONS, Miss M. V.—*contd.*—ISMAIL, Khan Bahadur MOHAMMAD—IYER, The Hon'ble Mr. Justice T. V. SESHAGIRI—JENKINS, WALTER A.—JENNINGS, The Hon'ble Mr. J. G.

its aim the passing of examinations only. The matriculation examination should be more difficult than it has been for the past few years. The number of text-books, and the subjects prescribed, should not be increased, but the examination should be a real test of the candidates' knowledge. The teaching of English in schools should be considerably improved, especially by appointing better qualified teachers. The rigidity of the examination system ought to be reduced, and the use made of examinations might be varied to meet the needs of different subjects of study and of different groups of students in one or more ways, as previously suggested.

ISMAIL, Khan Bahadur MOHAMMAD.

The present system of admission to the University of Calcutta is not satisfactory. The University should fix the standard of attainment only. Building, equipment, etc., should be left to the local authorities. The examination should be on a smaller scale.

IYER, The Hon'ble Mr. Justice T. V. SESHAGIRI.

I am unable to answer this question, but I can speak from my experience of Madras that the conditions of admission to the University are very unsatisfactory. Some very good students are kept out for want of accommodation in colleges. The only remedy seems to be the multiplication of colleges, with the necessary staff and equipment.

JENKINS, WALTER A.

The matriculation examination needs considerably stiffening in order to "weed out" many who now find admittance to a college, and who are not of sufficiently high mental calibre to truly benefit from education. Apart from the language question the standard of questions and marking is much too low. I would suggest the addition of science (elementary facts of physics and chemistry) as an optional, perhaps compulsory, subject. If English is to be retained as the medium of instruction the English test needs to be considerably more difficult than at present. My experience of first year classes is that very few of them understand the simplest spoken English. An oral test conducted, if possible, by Englishmen is absolutely essential if students are to be required to understand and follow lectures. No matter when English is adopted as a medium of instruction, all those who attend lectures should have passed an oral English test.

JENNINGS, The Hon'ble Mr. J. G.

It appears to me that the conditions of admission to the Calcutta University have been most unfavourably affected by the control which the University has tried to exert over schools. Its interference has led to a dual control, and the schools of this province at least, before October 1st, 1917, when the province acquired its own University, have looked partly to the Calcutta University, and partly to the Education Department, for control and guidance. The effect has been to weaken the control, and obscure the guidance, and the schools are the worse for the competition between the two authorities. The University, apparently, has feared that the department would be too strict, and the department has certainly thought that the University prevented the proper organisation of the schools and the raising of the standard of staff and equipment. The University should certainly maintain its own matriculation examination, but I doubt whether the standard of that examination will ever be satisfactory so long as the University prevents the department from authoritatively controlling and organising the schools. The work of a university

is outside schools. Its interference with schools, moreover, is based on a pretence, since it has no inspecting staff with which to inspect them. Its fears of excessive severity on the part of the Education Department are, I think, misplaced, since neither inspectors nor Directors of Public Instruction nor Government would be satisfied to show annually no increase, or a small increase, in the number of schools and pupils under their charge. But there is no doubt that the department, if left free, would endeavour by all means in its power to improve the quality of the teaching, discipline, and equipment, and so the standard of candidates for admission to the University. The candidates do not lack intelligence; they lack teaching, as is evidenced by the prevalence of private tutors for schoolboys.

JOHNSTON, Rev. A. B.

The present style of matriculation examination would do fairly well as a test if the pass standard were 50 per cent of the total possible marks. Second and third divisioners ought to wait another year before entering the University. A pass standard of 40 per cent in each subject and 50 per cent on the total would be fairly effective in eliminating the unfit. For first class 60 per cent or 65 per cent ought to be the standard.

A similar standard could then be enforced in the I. A.

But the financial effect would be very serious in many colleges. The present profits would disappear, and either double fees or double Government grants would be necessary.

Large numbers mean small fees; this very serious difficulty should not be forgotten by reformers, while it ought not to be allowed to hinder needed reforms. But no educational institution ought to be run with an eye to profits and dividends.

JONES, C. E. W.

I would suggest the following changes in the present conditions of admission to the University of Calcutta:—

(*a*) Since the requirements of the University affect the curricula of the schools the examination for admission to the University should be controlled not as at present by the University alone, but by the University in conjunction with the body which controls the schools, namely, the Education Department. In other words, a joint board, consisting of representatives of the University and of the Education Department, should be created for the framing of courses and for the conduct of the examination for admission to the University.

(*b*) The standard of qualifications required for admission to the University should be considerably raised. It has been pointed out again and again that the great majority of matriculates are unfit for a university training, and there is no necessity for me to labour this point. The only way in which this state of affairs can be remedied is to (*a*) improve the teaching in the schools, and (*b*) prolong the high school course in the case of boys who wish to proceed to the University. I understand that the Education Department is already giving its attention to the improvement of teaching. The high school should cater for two classes of pupils—for those who do not wish to proceed to the University and for those who do. For the former the course should be, roughly, of the same length as the present high school course. This course should be of a general character and, at its completion, a school-leaving certificate should be awarded by the Education Department. For those who wish to proceed to the University there should be a further two years specialised course, designed by the joint board proposed above. It may be objected that

such an extension of the school period would be either impossible owing to the lack of qualified teachers, or would be ruinously expensive if the teachers were available. It would not be necessary, however, for all high schools to make provision for the advanced courses. Certain centres might be selected, and I would suggest that existing mufassal colleges might conveniently be converted into high schools for this purpose. These colleges also could provide the teachers for the advanced courses. It is noteworthy that, in the scheme for advanced courses in secondary schools recently published by the Board of Education in England, it is distinctly stated that every secondary school is not expected to provide the advanced courses, and discussions on the subject in the press and elsewhere, seem to point to the possibility of some system of selection being adopted much on the lines suggested above.

KAR, SITES CHANDRA.

I should like to see the standard of the matriculation raised to the present intermediate standard so as to allow University work to begin roughly with the third year of the present University course.

KARIM, Maulvi ABDUL.

The present conditions of admission to the University of Calcutta are not quite satisfactory. On their entrance to the University students should have a greater command of the English language, through the medium of which instruction is imparted, than that the majority of the matriculates at present possess. Either the questions in English set at the matriculation examination should be of such a searching nature as to be a test for the requisite knowledge of the language or some other arrangement should be made for this purpose.

It is most undesirable that any student possessing the requisite qualifications should be refused admission, on the ground of want of accommodation, to a federal university having jurisdiction over a wide area thickly populated by millions of people still to be educated. Besides, it would be a source of danger to society, as well as to Government; if year after year, numbers of boys have to go adrift unqualified for any useful career in life. If this deplorable state of things is allowed to continue it would prove disastrous to the interests of the Mussalmans, who have just awakened to the paramount necessity of English education.

KHAN, ABUL HASHEM.

I do not consider the present conditions satisfactory. It does not take proper cognisance of the character, habits and health of students.

As regards character the certificate now granted by head masters to candidates for admission to the matriculation examination are formal, and are seldom seriously taken. If a degree of seriousness is attached to the certificate, and head masters be made to realise their responsibility in the matter by being required to state on oath or solemn affirmation their personal conviction regarding the character and conduct of the student, it might improve matters.

As for the habits of regularity, application, and perseverance I think the object might be attained by requiring that the student during the last one or two years of his career at school should take up some particular object of nature for his study and produce periodically in his vernacular a systematic account of his progress in his investigations and observations. This, in the hand of the head master, will enable him to test the student's habits of regularity, application, and perseverance.

KHAN, ABUL HASHEM—*contd.*—KHAN, MOHOMED HABIBUR RAHMAN, SHIRWANI—KHASTGIR, KARUNAMAY—KO, TAW SEIN—KUNDU, PURNACHANDRA.

The application for admission at the University matriculation may also be required to be accompanied by a certificate from a doctor that the student possesses sound physique and health to pursue a course of university training with advantage and profit. For this purpose, each school should retain the services of a qualified doctor, who will periodically examine the pupils and advise the head master regarding the health of the boys.

KHAN, MOHOMED HABIBUR RAHMAN, SHIRWANI.

No; the courses of studies should be framed on sounder lines, *i.e.*, it should not be possible for a student to take up history without taking up geography with it. The standard of English, too, should be raised.

KHASTGIR, KARUNAMAY.

I have stated in my reply to question 1 that the present conditions of admission to the University are so unsatisfactory that they cannot be conducive to the imparting of the highest training to the young men who enter the portals of the University.

In order to improve the conditions I would suggest the following changes :—

(*a*) Better arrangements should be made in the schools for the teaching of English by introducing the tutorial system, and also by appointing trained teachers in larger numbers. The present system, of prescribing a fixed number of books in English, as showing the standard required to be attained by a matriculation student, must be done away with. The University should publish selections from well-known authors suitable for the matriculation standard and prescribe some of the selected pieces for examination in one particular year.

(*b*) Specialisation in any subject or subjects at the matriculation stage should not be permitted. Students must be compelled to read English, mathematics, one classical language, history (both Indian and English), geography, and sanitary science. The latter three subjects, *viz.*, history, geography, and sanitary science, must be taught in the vernacular, and students should be allowed the option of writing their answers in those subjects in the vernacular.

KO, TAW SEIN.

The present matriculation examination of the Calcutta University should be abolished, and college entrance examinations should be substituted, as at Oxford and Cambridge.

KUNDU, PURNACHANDRA.

I am not satisfied with the present conditions of admission to the University. I wish that a better trained set of students should enter the University. I would like to see the matriculation course raised by one year more, and the University course curtailed by one year, there being only one University examination, *viz.*, the B.A. or B.Sc., after the matriculation (I.A. or I.Sc. examination is to be dropped). I would like:—

(*a*) That most of the I. A. or I. Sc. work done in schools and some additional subjects are introduced there. This will not throw an excessive burden upon the school, provided the teachers are trained, the medium of instruction is Bengali, and suitable elementary books are compiled by specialists in Bengali (*vide* my answer to question 13).

(*b*) That students who enter the University should have a fair knowledge of the English language, not necessarily of literature. The existing regulations on the subject (*vide* Regulations, chapter XXX, section 10) are excellent, but the ideal is not attained for the following reasons :—

(i) Teaching of English in schools is defective in the lower classes (which are generally under ill-qualified teachers). Most of the work which ought to have been done in the elementary stages is left undone so that the better teachers of the higher classes have their time occupied in doing much of the elementary work.

(ii) Teachers of the higher classes, having such ill-qualified pupils under them, naturally resort to some makeshift arrangements as would help pupil, somehow to get through the matriculation examination in English. In this they are helped by the nature of the questions set, which are of a stereotyped form.

(iii) From my experience of students who just enter colleges I find that they are so very deficient in English that it is impossible to reason how they have got through the present matriculation test in English, even if the examination had been conducted with reasonable leniency. The conclusion is irresistible that the majority of the answer papers, being altogether of a miserable quality, the body of examiners has to lower its standard in order to keep up the percentage of success. There is only one remedy for this—that the standard of teaching English in all its stages through the secondary school should be so efficient as to make candidates for the matriculation examination really fit for the standard set in the regulations. The raising of the standard of examining the papers by itself can have nothing but an injurious effect; it is the quality of the students which has got to be improved.

(iv) Though several text-books in English are recommended year after year for the matriculation examination it is not obligatory, under the existing system of examination, for students to read any of them. But, as a preliminary training for the collegiate education in literature, it is essential that at least some prose and poetry pieces of standard authors should be compulsory in the matriculation curriculum. These pieces should be read in the top two classes and questions on these should be set to ensure the students' thorough appreciation of the pieces read.

(*c*) That such professional courses of study as engineering, medicine, law, should be open to such matriculates and students going up for these need not crowd the colleges, which should be meant primarily for higher academic training in literature, arts, and science subjects.

LAHIRI, GOPAL CHANDRA.

The present system of admission of students to the Calcutta University seems to be defective in that it allows third-class students to enter it. These may be otherwise provided for. Students who are not promising enough may be given leaving certificates from the middle English stage. They may be shifted on to agricultural schools, and survey schools, polytechnic schools, or training schools to be trained as *gurus* for primary schools. Those that pass the matriculation examination in the third division may be provided for in the medical schools, in the clerical departments of Government, railway, and merchant offices, technical schools and muktear schools, the last to be created. Only first and second-class matriculates should be allowed to enter the University.

LAHIRY, RANOJIT CHANDRA.

I am satisfied with the present conditions of admission to the University of Calcutta.

LANGLEY, G. H.—LAW, The Hon'ble Rajah RESHEE CASE—MACKENZIE, A. H.

LANGLEY, G. H.

The character of the entrance examination for any university is determined by the condition of education in the schools from which candidates are drawn. If the standard is so raised that only candidates from the most efficient schools can pass many students who might afterwards do well may be lost to the University. The present standard of admission is extremely low, and it will only be effectively improved by the reform of the schools of Bengal. An immediate advantage might be gained by reducing the percentage of those who matriculate, and by insisting on greater proficiency in English.

LAW, The Hon'ble Rajah RESHEE CASE.

I am not satisfied with the present conditions of admission to the University of Calcutta because a large number of students passing the matriculation examination finds a great deal of difficulty in getting admission to the affiliated colleges; the number of students to be so admitted to a particular college being limited adequate provision should be made to remove this difficulty.

MACKENZIE, A. H.

No; a matriculation certificate should connote that the holder has the necessary knowledge and capacity to obtain, provided he is reasonably industrious, a degree at the end of four years.

That the Calcutta University accepts as under graduates many students who have not reached this standard may be proved by reference to facts regarding the Allahabad University and to a comparison of Allahabad standards with those of Calcutta.

In 1913 approximately 1,900 matriculates were admitted to courses for the degrees of the Allahabad University; in 1917 approximately 600 candidates obtained the B. A. or B. Sc. degree. The leakage consists mainly of candidates who failed to pass the interme diate or degree examinations. It would be an underestimate to say that 50 per cent of the candidates admitted to the Allahabad University have not, at the time of their admission, the capacity or attainments to proceed to a degree.

"Sidelight is thrown upon the comparative standards of attainment of the Calcutta University matriculates and those of the Allahabad University in remarks made by principals of colleges on the subject of admissions. One of them observes:—'The type of student who gets a first class in the Calcutta matriculation would normally fail in our matriculation.' Another declares, 'A second division (in the Calcutta matriculation examination) connotes something worse than our third division.' It would be rash to argue that the Calcutta matriculation standard may, notwithstanding, be sufficiently high for university purposes in the United Provinces, for a principal who has opportunities of judging the products of both universities roundly declares that a third division in Calcutta examination means 'sheer illiteracy.' 'I find,' he says, 'that boys after failing to get a United Provinces matriculation or school-leaving certificate in the third division can, and do, step over the border, read in a Calcutta recognised school, and get a first division—barely equal to our third.' Still another principal speaks of students from Bengal as 'amazingly ignorant of English even by the standard of a Calcutta first division'." (General Report on Public Instruction in the United Provinces for the year ending 31st March, 1916, page 13.)

The low standard of the matriculation examination is the root cause of the main defects in Indian universities. It results in college classes being composed of students the majority of whom are incapable of profiting by good teaching. If professors adopt methods designed to stimulate thought and inculcate habits of independent study the

MACKENZIE, A. H.—*contd.*

bulk of the class is unable to respond. Accordingly, teachers have to do the thinking for their students, and the almost universal method is the dictation of notes. Students may thus gain a considerable amount of information, but they receive no permanent mental benefit; on the contrary, the effort to store up a large amount of undigested material frequently strains the mind beyond the elastic limit. Thus, I have noticed that the matriculate is usually a better teacher than the 'failed B.A.'; in the case of the latter, unintelligent study has destroyed powers of independent thought, and the result is a mind that is stale and inert. The capable student also suffers. The professors have to teach down to the level of the average; in justice to the majority, they are unable to raise questions or employ methods designed to call forth mental effort from the students who are capable of being highly trained. There is, thus, much waste of good material. Of 527 candidates who passed the B.A. examination of the Allahabad University in 1916 only 99 passed in the second division and only 1 in the first. Many of the 427 graduates in the third division could have been trained to the standard connoted by a first or second division if they had not been taught by methods designed mainly for the benefit of the 698 candidates who failed in the examination.

The present school life (eleven years) is too short to bring students to that standard of attainment (in English especially) and mental development required for university studies. Eleven yars in an Indian secondary school is equivalent (if we allow for the short hours and the many religious holidays in India) to less than eight in a secondary school in England. Thus, the well-educated Indian boy enters for his matriculation examination when he is at the stage of mental development of an English boy of thirteen or fourteen.

At present, the matriculation examination serves two purposes: it marks the completion of a secondary school course and it qualifies for admission to the University. But a boy who has satisfactorily completed a course of secondary education has not necessarily the capacity to profit by university education.

The present school course is capable of giving a satisfactory secondary education. The completion of it should be marked by a school-leaving certificate examination. Boys who pass this examination and desire to proceed to the University require at least one year's further study at school. I suggest, therefore, the addition of a special 'matriculation class' to the school course. My proposal is, thus, a double one:—

(*a*) *That at the end of the present school course there should be a school leaving certificate examination, success in which would connote the completion of a satisfactory course of secondary education.*—It should be conducted by the Education Department. Success in this examination should qualify for admission to the junior grades of Government service and to colleges (*e.g.*, junior training, technical, agricultural, commercial) of a grade lower than university colleges. No school should be recognised for this examination unless it submits to inspection by the Education Department.

(*b*) *That an extra class should be added to the school course.*—Only students successful in the school-leaving certificate examination should be admitted to this class, which should prepare candidates for the matriculation examination.

The main objections to these proposals are:—

(i) A school-leaving certificate examination conducted by the Education Department would be a serious undertaking. The chief difficulties would be in the adoption of the features characteristic of a modern school-leaving certificate examination—school records, oral and practical tests. These presuppose well-organised schools, staffed with reliable teachers, and an agency available for *in situ* tests. But oral and practical tests are not essential features of a school-leaving certificate examination, and could gradually be adopted as the school becomes ripe for them and the agency becomes trained and organised.

(ii) There are many boys who could pass the school-leaving certificate examination, and who desire, and are fit for, some form of education higher than that of the secondary school, but who are unfit for a university course. What becomes of the

hundreds of youths who pass the matriculation examination, pursue their studies at a college, but never obtain a degree? A large number becomes clerks in Government or railway offices, some enter business, many become teachers. If we raise the standard of the matriculation examination we should provide for these youths a training up to the limit of their capacity. I advocate, therefore, that, if the standard of the matriculation examination is raised, provision should be made (by the establishment at least of lower grade training colleges and commercial colleges) for the further education of youths who are not fit for a university course but desire, and are qualified for, an education higher than that given by the school.

(iii) Are teachers available for additional matriculation classes? There were in 1912 about 400 high schools in Bengal. We may assume that about half of these could be recognised for an improved matriculation examination. Thus, the total number of extra teachers required would be about 200.

(iv) It would be necessary to draw up a single year's course which is self-contained and a natural extension of the school course. I think this is possible, and would suggest the following scheme for the matriculation examination:—

Candidates to be required to pass in three subjects, as follows:—

(*a*) English	Pass marks: 50 per cent.
(*b*) A special region in geography, or a special period in history . . .	Pass marks: 45 per cent.
(*c*) A classical language, or advanced mathematics, or a special branch of science .	

The examination should require in English a knowledge markedly in advance of that required for the school-leaving certificate examination, and in other subjects it should test the candidate's capacity for higher study.

(v) It would be necessary to give financial aid to colleges whose fee income would be reduced by the elimination of unfit students.

MAHALANOBIS, PRASANTA CHANDRA.

The existing matriculation standard is admittedly too low to provide the sound general education which is the pre-requisite of all university education. In the present unorganised condition of secondary education, and with the existing overcrowding, this is inevitable, and a mere stiffening up of the examination would be of no avail; in fact, would be highly injurious to the cause of educational progress in Bengal. A high percentage of failure, where suitable and adequate teaching provisions do not exist, serves merely to increase waste, and adds to feelings of discontent and "unrest".

America with her tens of thousands of matriculates is the only country which has in any way to face a problem of similar magnitude and American experience should be of some value for our guidance here. H. Pritchett in his Carnegie Foundation Reports (1907, 1910, 1911, 1913) lays down certain general principles which are equally applicable to Bengal.

(*a*) The *college* (*i.e.*, teaching in the intermediate in our case) must rest squarely upon the secondary school for the preparation of its students.

(*b*) But the *secondary school* should not be a mere preparatory school; it must be a centre of intellectual culture responding decisively to local needs. But it must be remembered "that the conditions and tests of entering the universities are those which touch the population at large far more than any other. The standard of admission to universities cannot fail to influence the curricula and the standard of all the secondary and technical schools". [Sir Ed. Busk, Universities Congress, 1912, page 205.]

Thus, it is essential that the college must not "fatally limit the freedom of the high school in the subjects which it ought to, and must, teach". (Carnegie Foundation, 1910, page 52.)

MAHALANOBIS, PRASANTA CHANDRA—*contd.*

(*c*) The preparation in the secondary schools must give a thorough grasp of some fundamental subjects. It must give the students intellectual power. The curricula must not be "too diffuse".

(*d*) To prevent overcrowding in the college some amount of bifurcation must be provided at the end of the secondary stage. Unless this is done it would be futile to expect any improvement by merely raising the standard of pass in the matriculation examination to an artificial pitch.

But the fundamental unity of secondary education must be clearly recognised. Fouillée is essentially right in laying great stress on this. "As a safeguard of national unity our instruction must be unified and animated by one spirit" (Education, page 213, *et seq.*).

Pritchett also states that "the same methods which make for efficiency in preparation of boys and girls for college will also make for efficiency in the training of boys and girls for their vocation".

Thus, the problem is not one of converting a part of the University system into a huge scheme of trade schools, but that of providing suitable openings for vocational training at the end of the secondary stage.

This, I believe, can be best done by creating a system of higher industrial and agricultural schools, more or less co-ordinate with the present intermediate teaching. If this is done the college, on the one hand would provide intermediate education as preparatory work leading to the University, while, on the other, the technical schools would train a large proportion of our young men for their vocations, and would thus relieve the present overcrowding in the college.

For these technical schools a system of diplomas and certificates may very well be established, as I have already suggested. In fact, it is necessary at present that the technical school graduate should have an equal *social* and educational status with the college man who has passed his intermediate. This can be secured only by granting *University* certificates, and, unless this is done, owing to *social* necessity, young men will flock to the college in as large numbers as ever.

I have strongly advocated the inclusion of higher technological studies within the University. But it must never be forgotten that the essential condition for this is that these technological studies must serve the purpose for which all other studies serve—the general training and a detached scientific culture of the mind. Thus, it is absolutely essential that the scientific character of university studies be preserved, and technological courses must never be expected to provide merely technical instruction for the practice of the different trades and professions. This being so, a separation of technical instruction for purely vocational *practice* from college education leading to the University, is desirable at about the present "intermediate" stage.

In Bengal it is necessary and desirable to establish "two grades of school examination, conducted in the interests of the school and closely related to their curricula" (London Commission, page 43, section 93; Final Report).

The lower examination, which may be called the "*school certificate*" examination would correspond to the present matriculation examination, and would secure admission to the college (*i.e.*, present intermediate teaching).

The higher, corresponding to the existing intermediate, examination may be called the "college certificate" examination and would, on passing, secure admission to the University proper.

For the "*School certificate*" certain fundamental subjects must be made compulsory. But every attempt must also be made to give sufficient freedom to high schools to enable them to look after local needs.

The number of subjects in which the examination may be taken, or for which credit may be given, should depend on local conditions, and there should be no hard-and-fast rules on the question.

But it must be distinctly understood that any particular group selected must be thoroughly coherent and well organised. Otherwise, if too much diversity is allowed within the group the curricula would become too diffuse, with consequent lack of intellectual power in training.

MAHALANOBIS, PRASANTA CHANDRA—*contd.*

The examinations must test the candidate's command of his own native language. This is absolutely essential.

In the different examination papers too much choice should *not* be given in the form of "optional" questions. In the lower stage it is desirable that a large number of "compulsory" questions be included in order to test the general training. A certain number of more difficult optional questions may be asked to discriminate between the better class of candidates.

The "school certificate" examination would be conducted by a *joint board* which would be a constituent part of the University. This board will consist of representatives of recognised high schools, in addition to the members from the faculties, boards of studies, and other committees of the University.

This joint board will form "local boards" at the different "associated" centres, with co-opted representatives of the local high schools. Each local board will make arrangements for, and generally supervise, the examination within its own area of jurisdiction.

The joint board will be responsible for the whole of the examinations as such, but it should have the power of setting different papers for different centres, or to delegate its powers of setting papers to local boards for their respective centres. Thus, the examination papers will not necessarily be identical for all the centres, and would allow differentiation in accordance with, and in proportion to, local requirements.

Consequently, there will not be any necessity for the examination to take place on the same date at all the centres. This should be a sufficient safeguard against all the evils inherent in the present unwieldy character of the examination.

With a powerful central joint board it should be possible to ensure that the variations in the local standards in any year should be no more than the annual variations in any centre.

Further, this plan of gradual decentralisation would allow an increasing degree of local autonomy, and would be best adapted to meet the growing demands of the different independently developing local centres until they are transformed into full universities.

The central joint board will also have the power of recognising other qualifications as equivalent to the school certificate. In addition, each local board may also be given certain powers to grant exemptions in their own sphere of influence only.

No minimum age-limit should be fixed. Our youths are often highly *precocious*, and it is thoroughly undesirable that they should be made to wait a long time before being allowed to join a higher institution.

Normally, it would be desirable to thus adjust the courses that this examination may be taken between the ages of *fourteen* and *sixteen*.

At the end of two years' college work (approximately to present intermediate standards) students will be allowed to sit for the "college certificate" examination.

Each local centre will have its own board. In addition, a central board, consisting of representatives of these local boards and members of university faculties, etc., would be constituted. The central board will be responsible for the whole of the examination as such.

Each local board will conduct its own examination, which would differ according to local conditions. The amount of local autonomy delegated to any centre will be determined by the central board.

Ordinarily, only the holders of the school certificate will be allowed to take this examination.

But each local board may be allowed some discretion in admitting candidates from recognised institutions to its own local examinations, under suitable regulations.

The central board will have the power to admit any candidate to the Calcutta examinations, which will be conducted by the central board direct.

The central board will have the power of recognising other qualifications as equivalent to the college certificate, and of granting special exemptions on application to a permanent committee of its own.

MAHALANOBIS, PRASANTA CHANDRA—*contd.*—MAHASAI, KUMAR KSHITINDRADEB RAI—MAITRA, AKSHAY KUMAR.

Thus, admissions to the intermediate colleges will be open normally to holders of the school certificate and those having recognised equivalent qualifications. In addition, special exemptions may be granted to particular individuals.

In this connection, each local centre will be encouraged to allow some credit for regular class work in recognised high schools. Thus, gradually, the school certificate will, in time, come to represent good class work actually done in the school quite as much as the result of a single examination.

Admissions to the University (*i.e.*, the present third-year stage approximately) will be open to holders of the college certificate (to be taken between the ages of sixteen and eighteen).

But certain colleges will be under the direct control of the University or of a local centre. This is desirable from a general academic standpoint, and also on account of the fact that a certain amount of overlapping between high secondary work and university work is inevitable. In the case of these "incorporated intermediate colleges" internal tests will be probably sufficient to admit to the University, thus doing away with the intermediate examination as an end in itself.

In addition, perhaps it would be just as well to leave some power in the hands of the faculties to admit candidates from "recognised" institutions on production of suitable certificates, and also to admit other applicants who may have special qualifications.

MAHASAI, KUMAR KSHITINDRADEB RAI.

The present conditions of admission to the University are highly unsatisfactory. The ardent aspirants to university fame should satisfy a really harder test than what the present regulations contemplate. Under the existing system there is considerable economic waste, much to be deplored, by all having the real interest of Bengal at heart, and to prevent which it is highly desirable that the present matriculation standard be raised to the next higher standard (which may be accepted as the school final examination). The University entrance examination should be a harder test of a higher standard, meant for those who are really intelligent and fit for the University training.

Both in the school final, as well as in the University entrance examinations, geography should be made a compulsory study and, in order to test the candidates in practical training in English, the examinations may be partly *viva voce*, in addition to what they are now required to undergo. In the school classes the attention of teachers may be drawn to the proper pronunciation in English and the boys should, as often as possible, be given exercises in transcription and dictation to help them in correct spelling and neat handwriting and proper punctuation.

The time-tables adopted in different colleges for teaching different groups of subjects in the intermediate and the bachelor of arts examinations have been a source of trouble, and always work to the great disadvantage of the students concerned. In most of the Calcutta colleges, so far as I am aware, students, if they wish to attend their classes regularly, have to wait for hours together between any two consecutive lectures and, at present, no provision can possibly be made under the existing arrangements to lecture to them consecutively, without intervals. As there is much waste of time under the present system some device should be made and means adopted to remedy this evil.

MAITRA, AKSHAY KUMAR.

The present condition of admission to the University of Calcutta makes it imperative to provide a further preparatory training of two years to enable a student to take up his actual studies for a degree. This part of the training should more properly belong to the school, and the student, on his admission to the University, should be allowed to commence his studies for a degree in law, medicine, engineering, agriculture, technology, and other branches of useful knowledge according to his choice. While a higher standard for admission to the University would be created by this arrangement, the rigidity

of examinations might be largely relaxed. All collegiate and Government schools should be at once raised to this standard. Those private schools which would find it financially difficult to expand in this line may be helped by Government or allowed to be treated as feeder-schools.

MAITRA, GOPAL CHANDRA.

Elements of general geography and English and Indian history should be made compulsory subjects for the matriculation examination and one science subject may be made optional. Some of the matriculates are very weak in English.

MAITRA, HERAMBACHANDRA.

History and geography should be both included in the compulsory subjects prescribed for the matriculation examination, the history of England should be included in the history course, and a text-book in English should be prescribed as part of the course in English. Those who fail in any subject in the matriculation should not be prevented from appearing at higher University examinations in other subjects, so that those who pass in them may get certificates of proficiency in some particular subject or subjects which would qualify them for various useful careers which are not now open to them. I am opposed to the proposal to substitute a school final examination for the matriculation, and I beg to invite attention to my remarks on the subject in an article on "The control of schools", in *The Modern Review* for December, 1917 (from page 614, last paragraph, to page 616).

MAJUMDAR, PANCHANAN.

There are many students who are very proficient in some subjects, but very deficient in others. A student, for example, may make a good doctor or engineer, but is sadly deficient in English. Under the present rule he cannot read in the University unless he passes the matriculation examination. I think this rigid rule should be relaxed in exceptional circumstances so as to admit within the University students who have not passed the matriculation examination. Certificates from teachers may be insisted upon, and a preliminary examination may also be held where necessary. Similarly, under exceptional circumstances, a boy who has not passed the I.A. or I.Sc. examination miay be admitted into the B.A. or B.Sc. class, respectively.

Allied to this is the subject of the age-limit of students appearing at the matriculation examination which is at present fixed at sixteen. I think this hard-and-fast rule works as a hardship in many cases of meritorious students, especially in view of the fact that the age-limit for admission into Government service is 25.

MAJUMDAR, RAMESH CHANDRA.

Yes; the matriculation examination is a good test for admission to the University of Calcutta. Some improvement, however, ought to be made in the direction of "recognition of schools" for the purpose of the matriculation examination. The standard laid down is too high, and is often applied with little or no reference to the environments. Thus, in a village where all the people live in thatched huts, the school building must have a brick plinth and at least corrugated iron roofing before the University would recognise the institution. Besides, the University relies upon the opinion of the inspectors of schools, who are mostly ignorant of the true conditions of the country, and are often guided by considerations which ought not to play any part in a purely educational affair. The University should maintain its own inspectors for reporting upon the educational institutions which apply for recognition.

MALLIK, Dr. D. N.—MASOOD, Syed Ross—MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN—MAZUMDAR, C. H.—McDOUGALL, Miss ELEANOR.

MALLIK, Dr. D. N.

If this refers to the standard for the matriculation examination then, in my opinion, the standard is high enough, in view of the means available for conducting the schools. It is not the standard that is unsatisfactory, it is the *teaching*.

If the teaching can be improved, and a better working knowledge of English and thoroughness within the limits imposed by the existing standard secured, we shall obtain the results we seek. There is no reason, for instance, why *any candidate* for the University examinations should not cultivate neatness, why any student who has been taught English for eight years should ever write " let this is ", nor be unable to express himself in English or vernacular, on the whole, correctly. But all this *is a matter of teaching, not of standard.*

But it is difficult to ensure these things by an *examining* body. It is for those who direct the teaching in the schools—the Education Department—to do so. For this the inspecting officers should not confine themselves to cheap criticism of the work, and the general ordering of a school, but should inculcate right methods in teaching, and see that those methods are followed. A radical change in the method in teaching and inspection, not in a change of standard, is what is necessary in order to bring about the desired state of things at the matriculation stage.

I would venture to suggest that the Commission would be pleased to go into this aspect of the question. The issues are wider than the mere question of admission. The present system, in fact, involves a tremendous waste of energy. A boy often leaves school practically ignorant of English although he has had English taught him for *eight years*. He is not so very dull as all that—none of our boys are—and yet that is the result. *Obviously*, the system and those who are responsible for its working must be held responsible for it.

MASOOD, Syed Ross.

No; the courses of studies should be framed on sounder lines, *i.e.*, it should not be possible for a student to take up history without taking up geography with it. The standard of English, too, should be raised.

MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN.

The present matriculates are not properly trained in English, history, and geography and they, therefore, experience considerable difficulty upon their admission to the University. A general knowledge of all these subjects should be imparted to them before they go to the University. Only first and second class matriculates should be admitted to the University and only first class intermediates allowed to study for the degrees.

MAZUMDAR, C. H.

No; the matriculation should be such as to be a truer test for the University to decide whether those who wish a collegiate education have attained a sufficient standard of knowledge to enter upon it with profit.

McDOUGALL, Miss ELEANOR.

The minimum age at which a student enters college should be eighteen. This would prove a hardship in individual cases; but it would raise the level of the class work. A large part of the first class consists of immature schoolboys whose precocity is no guarantee of ability and who are severely strained by premature effort. If it were impossible to enter the University before the age of eighteen the work of the upper forms in the high school would be done with less haste and in a less flimsy way.

MITRA, KHAGENDRA N.—MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur—MITRA, RAM CHARAN—MITTER, Dr. DWARKANATH.

MITRA, KHAGENDRA N.

The present entrance requirements of the University of Calcutta are far from being satisfactory. I desire the following changes:—

(*a*) There should be no restriction as to age.

(*b*) Indian and British histories should be made subjects of compulsory study for the matriculation examination.

(*c*) Topographic geography should also be compulsory.

MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur.

Some changes should be made in the present conditions of admission to the University.

As regards the matriculation examination there should not be any restriction as to the age of candidates. The study of the history of England and a more detailed study of the history of ancient and modern India and the administration of India and a study of geography should be enforced. Elementary botany and physiology should be made optional, if not compulsory, subjects of study. Essay writing and the art of speaking good English should be encouraged. After passing the matriculation examination every student should be required to study, for one or two years, books of a somewhat advanced character in English and history of the different countries and students desirous of taking a science course should study in addition the history of the different branches of science with special reference to their discovery and be introduced to the study and use of elementary trigonometry.

During this period special attention should be paid to the training of students in essay writing and in the art of speaking English and other languages. An examination should be held and after that students should be admitted to the course of University studies.

In this connection, I should suggest that the teachers, inspectors, and the governing body of each school should, on an examination as to fitness and mental and intellectual activities and the health of each student of the matriculation class, determine the course of study or the profession (*viz.*, law, medicine, engineering, agriculture, spinning, weaving, etc.) that might be suitable for the student. They should also consult the guardians of students in each individual case. Each student after passing the matriculation examination should be required to prosecute the course of studies selected for him by the governing body, etc., in the aforesaid manner.

MITRA, RAM CHARAN.

The standard of knowledge in English only should be raised a little. With this modification the present conditions may prove satisfactory.

MITTER, Dr. DWARKANATH.

Admission to the University is at present through a single channel, *viz.*, the matriculation examination. The shortcomings of the matriculation examination will be apparent from the following considerations:—

(*a*) The artificial restriction in the matter of age. It is an open secret that the restriction has not operated to raise the actual age of students seeking admission to the colleges to sixteen. It would perhaps be better to abolish the restriction altogether.

(*b*) The knowledge of English received at school is, in the average student, such that on coming to the college he is hardly in a position to profit by lectures

(*c*) What is, however, more serious than the former is the deficiency in the knowledge of facts. A fairly minute study of Indian history and geography, with a less minute acquaintance with geography, especially commercial, of the world, coupled with some knowledge of the history of England and ideas about elementary science, seems to be the irreducible minimum of knowledge required.

(*d*) Moral training is lamentably neglected in the schools at present. In this country moral training has always gone hand in hand with religious instruction. Belief in a sanction not wholly secular has always been regarded as a sounder basis for the moral superstructure than one wholly secular. Whether provision for religious instruction is practicable or not all steps should be taken for the formation of sound moral and hygienic habits in the most impressionable period of life.

MITTER, Dr. PROFULLA CHANDRA.

The answer is in the negative. The matriculation curriculum should be modified in such a way as to include history, geography, mathematics (elementary), one classical language, and one scientific subject, be it chemistry or physics or physical geography or botany, as compulsory subjects. The object of including a scientific subject is not so much to teach the matriculate a certain number of facts, as to develope his facilities of observation and to train his sense-organs generally. The teaching of English should be improved and practical training in the use of the English language imparted.

MOHAMMAD, Dr. WALI.

The students admitted to the University of Calcutta are of a poor quality and more or less unfit to derive full benefit by a university course. At Aligarh we admit every year a number of Calcutta matriculates—generally Muhammadans. Our experience is that the Calcutta first division student is hardly better than the Punjab or Allahabad third division student. His secondary education has been of an incomplete nature, and his knowledge of English somewhat poor. I should not like to introduce a stiffer test without, at the same time, improving the school education. The school leaving certificate examination, as conducted by the United Provinces Education Department, has proved a step in the right direction and should be introduced into Bengal.

MUKERJEE, ADHAR CHANDRA.

No; I should suggest that a better knowledge of English and the vernaculars should be insisted upon—English and vernacular text-books should be read, and students should attain greater capacity to write English and vernacular composition.

Knowledge of history (Indian and English) and geography should be insisted upon.

MUKERJEE, Dr. ADITYANATH.

The matriculation test should secure a better grounding in English, and make an elementary knowledge of Indian and English histories compulsory.

Beyond these little changes I would leave the existing matriculation standard undisturbed.

As a set-off to this little additional burden I would lighten the course in other directions, if necessary.

In this connection, I would submit the following suggestion for the consideration of the Commission :—

For the medical and the engineering training the minimum qualifications are those of the intermediate standard. I would suggest that the same minimum standard be accepted in the case of law students. The training in law may be a four years' course and, besides the subjects properly comprised under law, the course may include two or more of the following subjects :—

Psychology, ethics and social philosophy, philosophy of rights, logic, history, politics and economics, philosophy of law, English literature, and such allied subjects as would ensure a broad and liberal culture.

The same thing is done in the medical and the engineering colleges where, besides the subjects which constitute the theory and the practice of the professions, there are taught a number of kindred subjects like physics, chemistry, mathematics, and botany.

If an outlet is thus provided for law students after the intermediate stage it would not only relieve the congestion in our colleges, but prevent, to some extent, that waste of energy which, under the present system, is very considerable. Students have at present to master, with great patience and labour, a number of subjects now prescribed, but the knowledge thus gained cannot be turned to advantage, except in a very indirect way, in the profession of law, which is forced upon the majority of our graduates. Specialisation in law at an earlier stage would thus prevent wastage by diverting the energies from alien to allied subjects.

MUKERJEE, BIJOY GOPAL.

Under the present system it is possible for a student to pass the highest examination of the University without acquiring, at any stage of his career even an elementary knowledge of geography or English history. Moreover, the work of a teacher of English literature becomes extremely difficult if his students do not already possess a fair knowledge of these two subjects. It is, therefore, desirable that the study of English history and geography should be compulsory for all matriculation students.

MUKERJEE, RADHAKAMAL.

The prevailing type of college entrance examinations is too rigid and wasteful. The best plan would be not to depend exclusively upon the examination test. School-leaving certificates from the head master, testifying to the quality of work done, would be useful, but an examination should also be held to test the student's general knowledge. Subjects like mathematics, biology, botany, zoology, geography, history, and English will be covered while the examination will, in no case, be a merely mechanical quiz on certain books or prescribed portions of these subjects, but will cover the entire field of the candidate's study.

MUKHERJI, ATINDRA NATH.

In answer to questions 8 and 10 I would submit that the present system should be modified in the following ways :—

(*a*) The curriculum of the existing matriculation course should be further extended so as to include English, Bengali, Sanskrit, mathematics, including mechanics, history, geography, and elements of physics and chemistry as compulsory subjects.

(*b*) The teaching and examination in all subjects except English should be carried on through the medium of the vernacular.

MUKHERJI, ATINDRA NATH—*contd.*—MUKHERJI, PANCHANANDAS.

(*c*) No student who has failed to secure at least 50 per cent of the total marks in any one of the subjects should be allowed to go up for University training.

(*d*) Students debarred from entrance into the University should be provided for in institutions for special training in agriculture, commerce, industry, engineering, and the junior branches of the legal and medical professions.

(*e*) In the matriculation English course text-books should be prescribed and examined upon and the history course should include the histories both of India and England.

(*f*) The geography course should include a special knowledge of the geography of India.

The intermediate examination of the present system should be abolished and, after matriculation, the students should go through a three years' course for graduation in arts or science. The arts course should include English, Bengali history (Europe, England, Greece and Rome, and India), economics and politics, philosophy (logic, psychology, and ethics), and Sanskrit as compulsory subjects. The standard should be a bit lower than the existing B.A. standard.

The science course should include English, Bengali, mathematics, physics, and chemistry as compulsory subjects and any one of the three subjects, *viz.*, biology, zoology, and geology. I am of opinion that up to graduation students must acquire general information of all the important subjects, and I am not in favour of specialising in any one subject without any idea of the other subjects from the beginning.

After graduation those who want to go up for B.A. Honours should go through an additional year's course in one of the subjects in which they want to specialise.

No student should be allowed to go through the honours course in any subject in which he fails to secure at least 50 per cent marks in the degree examination.

Students after taking their degrees will be entitled to go in for higher training in law, medicine, and engineering.

In the B.A. honours course special stress should be laid upon the training in methods of independent investigation and research, under the close personal guidance of professors of first-rate ability and of recognised standing in their subjects.

This training might be further extended through a post-graduate course, at the end of which students would be entitled to the M.A. or M.Sc. degree, on the recommendation of the professor or professors concerned, who will testify to the extent and value of the independent research work done by students in their respective subjects.

In the B.A. honours and post-graduate stages students should be required to live with their professors in residential institutions located in a suitable quarter, preferably in one of the suburbs of Calcutta, where students and professors should have free access to well-appointed libraries and laboratories, and where there should be a large degree of freedom of teaching and of study.

MUKHERJI, PANCHANANDAS.

I am not satisfied with the present conditions of admission to the University of Calcutta. As I have pointed out in my answer to question 1 the student begins to specialise too early, and the result is that he reads English literature without knowing anything of English history, and he becomes a graduate or an M.A. in history without knowing anything of geography. Then, again, the matriculation student's knowledge of English is very poor and defective. More than a dozen books are prescribed for study, but the student has probably no acquaintance with any one of them; his pronunciation is bad, his handwriting is bad, his grammar is wrong, his spelling is wrong. To remedy these defects I would suggest the following changes:—

(*a*) Specialisation should only begin after the matriculation stage; a candidate for the matriculation examination should possess an elementary knowledge of the English language and literature, the vernacular, histories of England and India, geography, physical and sanitary sciences.

MUKHERJI, PANCHANANDAS—*contd.*—MUKHOPADHYAYA, Dr. SYAMADAS—Murarichand College, Sylhet—NAG, P. N.—NAIK, K. G.

(*b*) In addition to composition and translation reading, writing and dictation should be insisted upon in all classes up to the matriculation stage.

(*c*) Instead of prescribing a large number of text-books for the English course the University should, as under the old regulations, publish and prescribe selections from standard authors.

The student who desires to enter the University should produce a certificate not only of intellectual fitness, but also of physical fitness as well; for this purpose every school must have its physical director, and physical training must be compulsory for every student. Manual practical training of a useful character should form part of the school curriculum. I would refer, in this connection, to that excellent institution—Maharaja of Kasimbazar's Polytechnic Institute—organised and managed by Captain Petavel; here, practical manual training is closely associated with ordinary theoretic school education, and the result has been very satisfactory. Above everything else the moral tone of our schools should be raised—they should be not only coaching institutions for the matriculation examination; they should be also the medium for man-making and character-forming. I had my early school education in a school then known as the Arya Mission Institution; there we had daily prayers just before the commencement of the work of the school; we had daily religious discourses delivered by pious teachers; we saw on all sides Sanskrit and Bengali religious sayings and mottoes; in short, there was a moral atmosphere about the school which had an unconscious, but real and powerful, effect on our character. Such an atmosphere must be created in every school. The system of school education must be considerably improved on the above lines if there is to be a real reform of our university education. The root of the problem of higher education in Bengal lies in the schools which must, therefore, be manned by really efficient men with good pay and prospects.

MUKHOPADHYAYA, Dr. SYAMADAS.

The matriculation standard should be considerably raised to enable students to more profitably follow the University courses. The standard of school teaching should also be improved by the provision of better paid and better qualified teachers, and also in other ways. Much valuable time is wasted at school by the cleverer boys who might learn a great deal more by the time they are of the minimum university age. Some optional tests for deeper knowledge might be introduced.

Murarichand College, Sylhet.

The matriculation standard should be raised by including a compulsory course in the history of England, geography, and elementary science, along with what is already included in the matriculation course.

NAG, P. N.

The matriculation should have the subject of the history of England included in the curriculum. History and geography should not be optional subjects, but compulsory. Some rudimentary knowledge of Elizabethan and modern literature is useful to students at the matriculation stage in preparation for the University course. In secondary education more trained teachers are needed to improve the quality of teaching.

NAIK, K. G.

The present conditions of admission to the matriculation require a healthy change by the compulsory introduction of science subjects.

NAIK, K G.—*contd.*—NANDY, The Hon'ble Maharajah Sir MANINDRA CHANDRA—NEUT, Rev. Father A.

In the Bombay schools science courses in elementary physics, chemistry, hygiene, etc., begin three years before the matriculation. These subjects are necessary for a pass in the school classes but are omitted at the matriculation examination of the University.

I would prefer to add one more paper, at the matriculation, in science. It might be divided into various branches, of which a candidate may select any two :—

(*a*) Physics,
(*b*) Chemistry,
(*c*) Botany,
(*d*) Elementary mechanics,
(*e*) Astronomy,
(*f*) Hygiene,

or one of the above may be compulsory, carrying 50 marks out of a total of 100 and the rest might be fused into a series of popular school demonstrations based on Nature's observations.

An attempt might be made to give a combined course in the three years preceding the matriculation at school, and any two of the above to be then selected at the matriculation in the last year at school as compulsory.

The study of classical languages should give place to science, if necessary, or may itself go in as voluntary, the study in classics being done at separate institutions.

NANDY, The Hon'ble Maharaja Sir MANINDRA CHANDRA.

The existing conditions regarding admission to the University are simple. Students, after passing the matriculation, become eligible for admission to the University by producing the registrar's certificate as to the success in the examination. Though the conditions of admission are simple the fact remains that a large number of students every year meets with great difficulty in getting admitted to colleges, some getting no admission at all.

NEUT, Rev. Father A.

I would advocate the raising of the standard of the matriculation, at the very least in English, so as to make sure that those who enter the University are able to follow and profit by the lectures. This may mean that the candidate is to be kept longer in the school, but it practically saves time in the long run, since it decreases the risks of failure at future examinations. Should the objection prove insuperable a year might perhaps be saved by transferring from the intermediate to the matriculation certain subjects like history and geography, even logic—or portion of the physics and chemistry course—as well as mathematics. If the standard of English were considerably raised at the matriculation it might be possible to limit the examination in English for the I.A. to an essay and one paper on the text-books, and to an essay only for the I.Sc. Composition in the vernacular might be left out.

To the raising of the standard at the matriculation, besides the longer time required it will be objected that it may close the University doors to a large number of candidates. In answer, I would remark that it ought not to have that effect if the whole of the primary and secondary education were greatly improved. This is, evidently, the first step to be taken if the higher standard is to be maintained in the University courses. If this is neglected we try to build on sand, or to build a stately edifice without first digging the foundation, or to fill a cask without bottom. It has been the mistake all along in India, and the cause why university training has proved an almost general failure.

Besides, if the reform were to turn away a good number from the University, where would be the harm ? That many would be unable to enter Government service ? But why make the University degrees the " open sesame " to lucrative and desirable employment ? It is another serious mistake, to which I will refer in my reply to question 15.

NEUT, Rev. Father A.—*contd.*—North Bengal Zamindars' Association, Rangpur—People's Association, Khulna—RAY, JOGES CHANDRA—RAY, MANMATHANATH.

I know that my opinion on the subject will be treated as reactionary, involving (as it will be alleged) the curtailment of the boon of high education—"the noblest gift which British rule has conferred upon India". But, since the same objection has been hurled against every genuine attempt at reform of this boon, it matters little. It is only in India, be it remarked, that university education, or more accurately university degrees, is the goal of all who can possibly scrape through the necessary minimum required for entrance into the University courses—not, indeed, for the highest purposes of education, namely, increased actual activity and progress, but for the lower motive of gaining admission into Government service. In all other countries universities are for a minority, and the generality is satisfied with a perfectly sound secondary education, which is such as to fit them for first-class positions. There are other loaves and laurels worth possessing besides those that are enjoyed by degree-holders.

North Bengal Zamindars' Association, Rangpur.

The existing system will do.

People's Association, Khulna.

We are not satisfied with the present conditions. We desire the retention of the matriculation examination, which provides an independent test of which it is impossible for any school test to take the place. We are, however, strongly of opinion that the matriculation examination should include as compulsory subjects :—

(*a*) English.
(*b*) Mathematics—arithmetic, algebra, and geometry.
(*c*) History—both English and Indian.
(*d*) Geography.
(*e*) The vernaculars.
(*f*) The classics, or physical science.

We cannot too strongly emphasise the need for the knowledge, on the part of a student proceeding to the matriculation, of history and geography, subjects which are essential in any education which can be called a liberal education in any true sense.

The minimum age-limit should either be abolished or lowered. If any restriction is at all to be imposed headmasters of schools should have discretionary powers to relax it.

RAY, JOGES CHANDRA.

I do not fully understand the question. If it is intended to imply the mental equipment of matriculates I would say that the present conditions are not satisfactory, inasmuch as drawing and geography (in its widest sense) are not compulsory for matriculation. The knowledge at present is more bookish than real, more wordy than exact.

RAY, MANMATHANATH.

The present conditions of admission to the University of Calcutta should be modified as follows :—

(*a*) At the matriculation examination a better knowledge of English should be insisted upon ; the course in English should always include a text-book. History and geography should be made compulsory, and the course in history should always include English history. The age-limit should be relaxed ; there might be an age-limit, but exceptions should be made on the recommendation of headmasters.

(*b*) Greater freedom should be allowed to men of other universities to come to this University.

I may here state my opinion in a certain matter which has been discussed during the last few years. I am of opinion that the University matriculation examination should always be the test of admission to the University. It would not be fair to ask the University to recognise the school-leaving examination conducted by the schools or by any agency other than the University. The University should be the sole authority to decide whether the attainments are such as to justify admission, and the University should not be forced to recognise the certificate of any outside authority. Moreover, if the school-leaving examinations are conducted by the schools themselves there will be a very great difference of standards, and the results will, in many cases, be unreliable. One would also prefer an academic body like the senate to the bureaucratic Education Department which is, admittedly, not sufficient for the purpose.

I may also state my opinion on another matter which may have to be considered by the Commission. Under the Act of 1904 questions relating to the recognition of schools are decided by the University, but an effort may be made to get this power transferred to the Education Department. The present state of things should continue. It is not desirable to place the schools at the mercy of the officials, many of whom look upon Western culture as an evil and smell danger in the spread of Western education; it is no wonder, therefore, that the people, among whom there is a growing demand for education, have no confidence in the Education Department. Moreover, Government ought not to make any attempt to take away this power from the University, which is composed mostly of members nominated by it. There have been several instances when the Director of Public Instruction had to change his views based on the inspector's report after a discussion at the syndicate. What I would insist upon is that the University should have a separate staff of inspecting officers under its control, to be financed by Government; the total expenditure of Government would not materially increase, as it has now to depute its own officers for the work.

RAY, Raja PRAMADA NATH.

The present conditions of admission to the University by passing the matriculation test do not appear to qualify the students to follow the University training with facility. The matriculation standard should be considerably raised, but not beyond the means and resources of the existing matriculation schools, and university education should be restricted to what is required to obtain degrees. There should be no I.A. or I.Sc. examinations.

A ten-years' course in the school may be devised to enable a student to qualify himself for entrance to the University, and the present arrangement for allotting two years more for the I.A. and I.Sc. may be done away with. In the first five years English should be taught as a second language, other subjects being taught through the medium of the vernacular. In the next five years English should be the medium of instruction. This arrangement, while doing away with an intermediate examination, will also save time by a year at least.

In the University modern English literature, to a certain extent, should be taken up by those also whose general course of study will be other than linguistic. University education should not take up more than five years, three being for the first degree and two for post-graduate studies.

Students after passing the matriculation (as proposed) should be allowed to read for degrees in law, medicine, engineering, arts, and science.

RAY, RAMES CHANDRA.

The present conditions of admission to the University are not satisfactory, in that they pertain to moral and academical tests only. I would lay down certain physical tests indicative of growth and development and certain minimum physical conditions

RAY, RAMES CHANDRA—*contd.*—RAY, SARAT CHANDRA—RAY, SATIS CHANDRA—REYAZUDDIN, SYED, Quazi—ROY, The Hon'ble Rai SRI NATH, Bahadur—ROY, The Hon'ble Babu SURENDRA NATH—SAHAY, Rai Bahadur BHAGVATI.

of health, in addition to those already existing. These physical tests are not at present formulated, but must be formulated by a committee of experts after systematically examining for, say, five consecutive years, several thousands of Bengali pupils and finding out the normal average of physical development of Bengali students for each year of a scholar's life.

RAY, SARAT CHANDRA.

No; the standard of matriculation is too low; it should be considerably raised in all branches, *i.e.*, English, mathematics, history, geography, Sanskrit, or any other second language, and elements of science should also be introduced into the curriculum. They should be made compulsory subjects for the examination, so that the students after obtaining a sound general education may enter the University and follow the training therein on higher subjects.

RAY, SATIS CHANDRA.

The equipment of most students entering the University is such that they cannot follow higher teaching. To remedy this I would raise the standard of the matriculation examination. The intermediate examination might be abolished and the period of graduation after the matriculation examination reduced from four to three years. If the matriculation examination can furnish an accurate test of the fitness of students for admission into the University no harm will be done by reducing the interval; on the contrary, students will get relief by the abolition of an intermediate test.

REYAZUDDIN, SYED, Quazi.

No; I am not satisfied with the present condition of admission to the University of Calcutta. I would suggest that students who pass the matriculation examination should be allowed a seat in the University, whatever be their merits and in whatever division they pass. They may improve themselves as years roll on.

ROY, The Hon'ble Rai SRI NATH, Bahadur.

Yes; the present conditions are satisfactory.

ROY, The Hon'ble Babu SURENDRA NATH.

Yes; I am satisfied with the present conditions.

SAHAY, Rai Bahadur BHAGVATI.

I am not at all satisfied with the present conditions of admission to the University of Calcutta.

I would suggest the introduction of a third paper in English. This paper should be devoted to testing the student's knowledge of the structure of the English language and acquaintance with its literature, for without these students are handicapped in their studies, and college studies are inefficient. I consider it absolutely necessary in a student seeking admission to a college that he should know the common Latin

SAHAY, Rai Bahadur BHAGVATI—*contd.*—SANYAL, NISIKANTA—SARKAR, AKSHAYKUMAR.

and Greek roots, the prefixes and suffixes, not as philological curiosities, but as a key to words similarly derived, as a clue to the meaning of such words and their appropriate use, more especially as a means of discriminating between them with a view to their appropriate use. I also consider it necessary for him to be able to analyse an involved sentence, to eliminate the essentials from the non-essentials, to vary the construction in as many different ways as possible and in a particular manner desired, to appreciate the various forms of expression, to discriminate between them, to understand the figures of speech and the common allusions. All these are eschewed in the matriculation examination, which proceeds on the assumption that, if an Indian has just as much knowledge of the English language as an uneducated Englishman whose mother tongue is English he is fitted for a university course.

I would make the passing in this paper a *sine qua non* for admission to the University if, of course, the candidate passes in the other two papers also, but I would not penalise failure in this paper by withholding the pass certificate if a student passes in the other two papers. Such a certificate will be of value to him in other walks of life and relieve the disappointment of exclusion from the University.

This change will restore English to the place it should occupy in the matriculation examination relatively to the other subjects, and will mark off those who go in for the matriculation examination for entering a university from those who go in for it for entering a ministerial service or the like for which a matriculation certificate may be needed. The fact that a working knowledge of the English language is not enough for college studies seems to have been altogether lost sight of. Not to speak of an Indian, even an Englishman whose mother tongue is English, and who has not been taught English as a literary language, will not be able to follow a college course; and yet in this country it is believed that if we teach the student just to read, write, speak, and understand simple English we qualify him for a college course. The root of the evil lies in this.

SANYAL, NISIKANTA.

No; I would suggest the use of the vernacular, with English as the medium of instruction up to the matriculation, and a working knowledge of at least one other European language besides English. I would provide for the higher qualification of a matriculate by increasing the period of study by two years and providing for a progressive course of studies from start to finish.

SARKAR, AKSHAYKUMAR.

I am not satisfied with the present conditions of admission to the University.

Students should have a higher standard of knowledge of English. Many of them cannot follow the lectures in English. It should be essential for them to possess some knowledge of history and geography. Their vernaculars should be made compulsory in the sense as English is, and not as at present—a paper on composition.

In the place of classical languages I prefer an elementary knowledge of physics, chemistry, economics, science of agriculture, or sanitary science (only one of these).

The test of the knowledge of English for the matriculation as provided for (rule 10, chapter XXX, University Regulations) is excellent. But, somehow or other, it is not working well. I think that examination, as well as teaching, is responsible for this.

During the eight or nine years of the student's stay in a school he begins three or four English grammars, and very seldom finishes one. Among other things, strong canvassing of the writers of text-books and the spirit of patronage of the authorities are responsible. Grammar should be taught without a text-book or with the help of a single good book from beginning to end. More stress should be laid upon the command of English as provided for in the regulations, than on the knowledge of English literature. Most of the teachers will admit that students come with a very inadequate knowledge of English to the college classes. In this respect there has been a back-

ward movement among university students since the coming into force of the new regulations. As a teacher and examiner I have known many students passing the matriculation and I.A. examinations without being able to write four or five simple sentences in correct English.

SARKAR, BEJOY KUMAR.

No ; the changes suggested are :—

(i) There should be no age restrictions regarding admission to the University.

(ii) Elementary knowledge of Indian and European histories and geography must be made compulsory for the matriculation examination. To this end suitable text-books should be prepared in Bengali under the direction of the University.

SARKAR, GOPAL CHANDRA.

The answer to this question is connected with the question whether the existing affiliated colleges are adequate to meet the growing demand for admission, regard being had to the courses taught, accommodation, strength of the teaching staff, and residential arrangements for students in these institutions. My answer is that the present conditions are not satisfactory. The demand is much greater than what can be met by the existing institutions. The changes I would propose are :—

(*a*) Raising the standard of proficiency to be demanded from candidates seeking admission to the University.

(*b*) Expansion of the sphere of work of some of the existing colleges so that provision is made for teaching more courses than at present.

(*c*) The establishment of new colleges in the interior.

SARKAR, KALIPADA.

No; I would cut out the intermediate classes from the University, leaving it to deal with the graduate classes only. The school course may be extended to the intermediate in the case of good, select high schools, as has already been proposed by Government. This will ensure a higher qualification in English and a greater general proficiency on the part of candidates for admission into the University. It will also relieve the University of all undergraduate work.

SASTRI, KOKILESWAR.

The present conditions of admission to the University seem to require no change.

SASTRI, Rai RAJENDRA CHANDRA, Bahadur.

I am not satisfied with the present condition of admission to the University of Calcutta and would make the following remarks in this connection :—

(*a*) The matriculation test should be made stiffer and the examination, especially in English, more searching than it is now. There has, of late, been a distinct fall in the standard of the examination and the number of "passes" has, in consequence, gone up, with the result that boys with a very indifferent knowledge of English secure admission to colleges.

(*b*) The schools preparing candidates for the matriculation test are, speaking generally, very indifferently equipped for their work. They are mostly run on commercial principles and, having no independent sources of income, are, in a manner, dependent for their existence on the fees paid by their pupils.

(*c*) These schools are very poorly staffed and are unable, for obvious reasons, to enforce discipline among the boys.

(*d*) The condition of things even in Government schools in the mufassal is no better. This state of things can be put down, among other things, by discouraging commercialism in running a school, by a rigorous enforcement of inter-school rules relating to transfer, breaches of discipline, etc., and by the maintenance of a strict system of supervision by Government and the University, the former looking after questions of finance, discipline, and morality, and the latter concerning itself with the character and standard of the teaching imparted.

SAYIED, ABDULLAH ABU.

The present conditions of admission to the University are by no means satisfactory. Entrants are mentally ill-equipped for their collegiate career, and their ability to write and converse in English is notoriously deficient. I would propose that something on the lines of the school final examination, as introduced in some provinces of India, be tried in Bengal—the curricula and examinations being left to the Education Department. Those desiring to enter the University should undergo an entrance examination in languages only, consisting of the following :—

(*a*) Two papers in English, with a separate *viva voce* examination—the former to be mainly a test of the ability of candidates to express their thoughts correctly.

(*b*) One paper in a classical language. This, I consider, highly important in view of my answer to question 12 regarding the promotion of the scientific study of the vernaculars.

Such a system, I believe, will keep off from colleges those youths who are mentally unfit to enter the portals of a university and are a drag to their promising confrères. It would, however, be necessary to offer some further educational facilities to those passing the school final in the form of special courses in commercial subjects, mechanical and electrical engineering, agriculture, etc., leading, if necessary, to a degree, for which a clamour will continue for a long time to come. Without such provision I am afraid our ordinary youths can never be persuaded to forsake the beaten path from school to college and, however unfit they might be for higher academical education, success in an easy matriculation examination creates exaggerated notions regarding their ability, both in their minds and in those of their guardians, particularly when the majority of entrants passes in the first division.

SEAL, Dr. BRAJENDRANATH.

Some of the more important points that arise in this connection are :—

(*a*) Whether the matriculation certificate is a good working test of the candidate's fitness to profit by a university education, and especially whether the average candidate's knowledge of English is sufficient from this point of view.

(*b*) Whether the matriculation curriculum is well designed.

(*c*) Whether the examinations are too easy as regards the standard of the question papers, or too lenient as regards the valuation of candidates' answers.

My answer is that, *taken all in all*, the matriculation examination is a fairly good test, except that the blunder of having no compulsory geography and history and no science as examination subjects urgently demands rectification in any scheme of modern

SEAL, Dr. BRAJENDRANATH—*contd.*

education. The question papers have improved with the inclusion of alternative questions and the discouragement of mere memorising; still, a little more of general intelligence and general information, and a little less of bookishness, are desiderated. Shorter papers are also urgently needed if we want well-written and 'thought-out' answers. The marking is more mechanical than it should be, being often a scoring of points, but, on the whole, the examining is fairly done. Many of the candidates are weak in English composition, and make up for their deficiency by a mechanical trick of translation; but it is not the case that the majority are unable to follow the lectures in English, though they cannot clearly or correctly express themselves in that language. No doubt, they find great difficulty in catching the tone or accent of an European teacher, especially if there should be the added peculiarity of any broad pronunciation, brogue, or drawl, as may sometimes be the case; the best among us Indians in the senate have laboured under similar disabilities. What is more, the foreign teacher often fails to realise the mental furniture of the Indian boy, and slurs over descriptions of social manners or natural scenery which are perfectly familiar to him, but are altogether alien to his Indian pupils. It is for this reason that in the lower rungs of the educational ladder, the European teacher would be more or less of a misnomer, unless he (or she) should possess the feminine intuition and tact, in fact, the motherly instinct, joined with access to the Indian household. Finally, it may be noted that to-day the Indian matriculate's ignorance of geography and English history places him at a greater disadvantage than his imperfect knowledge of English.

What is wrong in the matter of English is fundamentally the fact before noted that, owing to the peculiar distribution of the linguistic 'faculty' (to use a convenient rubric), and its non-correlation with the mathematical or the inventive turn of mind or the powers of observation and judgment, no amount of drill and grinding without a habitual social *milieu* of speech and intercourse can teach the facile and correct use of a difficult, a logical, foreign idiom to a considerable section of otherwise intelligent and alert people whose natural parts may enable them to become very useful and efficient members of society. Let the Englishman realise what he has made of the Bible in the Bengali versions (with all his native helps), and be a sadder and a wiser man. The critic in the rôle of an educational reformer fails to understand that the political necessity of learning to speak and write English correctly cannot be made a ground for disqualifying a considerable section of Indian youths altogether for a university course of studies and, therefore, in the actual circumstances, for all studies in physical, natural, mathematical science, and all openings, technical or professional, like medicine and engineering, for which they may have very special talents, which they may use to their own benefit and to the benefit of the community. To raise the English standard considerably at the matriculation without providing openings in pure and applied science, or in technology, would exclude this class of Indians counting among its members some of the most brilliant mathematicians and the most distinguished specialists in a profession I could name. The critic's mental horizon is bound by the needs of the services when he demands an enhanced standard of correct English writing and speaking, and yet he is the man who is found declaiming incessantly against the Indian candidate's insensibility to the charms of pure knowledge and his love of preferments and posts. The remedy, in an admittedly difficult situation, is as follows :—

(*a*) To provide a bifurcation—from the higher forms of secondary schools upward (though, on general grounds, I hold bifurcation at this early stage to be only a second-best course)—a bifurcation into a mainly linguistic and a mainly non-linguistic ('real' or 'applied science') course of *general education*.

(*b*) To introduce the option of examination in the vernacular in certain subjects or certain stages for the literary, as well as for the non-literary, students

(*c*) To open up technological, agricultural, and commercial departments in both lower and higher courses, combining theoretical studies at the University (or in affiliated institutions) with practical training in attached or corresponding farms, workshops, and business concerns.

(*d*) To throw open these departments, as well as the medical and engineering colleges (which must be multiplied and established in suitable centres), to the

non-literary matriculates, as well as to such of the literary matriculates as choose to go over to the vocational, or professional, side. Thus, English will be a three-storied mansion, as it were. For the literary or arts courses (including law) an elevated standard based on higher English literature, but one Janus-visaged, and not *Mneme* like, ever eyeing backward—in other words, with greater leaning to contemporary literature than at present; for the science courses (I. Sc. and B. Sc.) a less exacting standard, based on the literature of science (current or mid-Victorian, but not earlier if it can be helped); and for the technological or professional departments a standard of business and practical English (with practical or technical French or Hindustani); and, when proper text-books are forthcoming, the option of examination through the medium of the vernacular; and, when the times are ripe—*i.e.*, after there is a considerable volume of suitable literature in the vernacular, and not before—of study also, in part (though not in large part), through vernacular text-books. A scheme like this is urgently called for if we are to meet all the elements of a compheated and outstanding problem.

SEN, ATUL CHANDRA.

The present conditions of admission are not at all satisfactory. Many of the boys who join the college classes are not fit for collegiate education. Such students should be discouraged from seeking admission into colleges. On the other hand, there are students who have a very sound knowledge in some subjects, but fail in an examination owing to deficiency in others. I would, accordingly, suggest that the following classes of pupils should be eligible for admission into a college.—

(*a*) Those who have passed the matriculation examination in the first division.
(*b*) Those who have passed in any lower division and have passed any preliminary test held by the college where they seek admission.
(*c*) Those who have failed to pass the matriculation test, but have secured high marks in those subjects which they intend to take up in the college and have also passed the college preliminary.
(*d*) Students who have been educated at private institutions, but who, in the opinion of the college authorities, possess sufficient knowledge in the subjects offered by them.

All students who have obtained the B.A. degree should not be permitted to join M.A. classes indiscriminately. Those who have passed with honours or distinction should be eligible for preparing for the M.A. degree. Of the ordinary B.A.'s those who are recommended by their professors as having shown proficiency in subjects which they intend to take up for the M.A. degree should also be admitted.

SEN, B. M.

The curriculum of studies for the matriculation is open to severe criticism. I think it is too early to begin specialisation at this stage, and also that it might be substantially stiffened without causing undue hardship. As a matter of fact, the senior boys at schools have often to mark time for the last two years of their career. Indian and English histories and geography ought to be made compulsory. The medium of instruction may be the vernacular, and boys will have the option of answering the papers in that language.

I would like to point out that it would be very undesirable to relegate English to a secondary place. A study of the English language and literature is the best preparation for the duties of a citizen, and an infusion of their dominating spirit the best stimulant for the growth of sturdy, robust manhood.

SEN, BENOY KUMAR.

The main point of this question has been discussed by me in the article below.

An Aspect of University Reform.

The affairs of the Calcutta University seem, for the last few years, to be engaging the attention of everybody interested in the cause of education in Bengal—from the Government of India down to professors alarmed at the rapid increase in the number of successful candidates, and even students rushing to vernacular magazines to publish their ideas about educational reforms. One thing seems to be quite apparent from all this, that something must be the matter with the University to have roused the interest of such various bodies of men. One explanation of this awakened interest is not far to seek. The University has, within recent years, developed with giant strides—even the rapid extension and the huge bulk of its buildings seem to give a fair idea of its rate of progress. Along with this progress it is quite possible that many defects have also manifested themselves—a thing very natural in a period of transition, for the University is certainly trying to pass from the affiliating, to the teaching, type. Attention has been drawn to some of its defects by its critics, but in a cursory and isolated way. It is to be regretted that no systematic attempt has been made either by educationists, or by public leaders, to review the affairs of the University as a whole. The intention of the present writer is to draw the attention of all who are interested in the cause of education to what he considers to be one of the root causes of the evident failure of the existing system of university education.

At the risk of appearing to be trite and commonplace it would be advisable, at the outset, to clear our ideas about the true end and nature of education. Modern writers on education agree in holding that the best form of education is the "specific education" which seeks to prepare every individual according to his capabilities for his particular life-work, teaching him both to earn his bread, and to spend his leisure with profit and enlightenment to himself and the society to which he belongs; *i.e.*, an individual has not only to be taught to earn his living according to his own abilities, but has also to be taught to discharge his duties to society and the State, from which he cannot dissociate himself, and the welfare of which depends upon his efficient carrying out of his part of the duty. The former is to be taught by vocational education, the latter is the aim of general education, and specific education should include both.

Now, let us examine our existing system, bearing in mind the above distinctions. It will be at once apparent that the education imparted at the University is neither specific, nor vocational, nor general; otherwise, how to account for the curious product of our University—the M.Sc., B.L.—who hopes one day to be a legislator of his country, though he had been absolutely innocent of all knowledge of history or politics in his student career. Even the extreme adherents of the "formal education" theory will not go so far as to hold that a specialised study in geology or botany will in any way fit a person for following a legal or political career. And yet this is what is actually taking place under the new regulations. If we bear in mind that the larger number of students who graduate from our University follow careers in after-life for which they do not receive any special training while at the University it will be quite evident that the education sought to be imparted there is certainly not vocational, and the intention of the framers of the regulations would appear to be the imparting of a general culture. But, owing to the introduction of a too early specialisation, it becomes in the end the most unnatural of things, *viz.*, a "specialised general education", which is really an absurdity, being a contradiction in terms; for general education as soon as it becomes specialised defeats its own end. In order to understand the full nature of this specialisation we have to remember that it begins at the schools and a student is allowed the choice of taking or refusing such subjects as history, geography, etc., even while he is in the third or fourth class of the school.

SEN, BENOY KUMAR—*contd.*

The narrowing of the school and college curricula came about in the following way. One of the gravest charges against the old regulations was that as the curriculum was very heavy, consisting of a large number of subjects, it encouraged cramming. And the remedy was sought in allowing choice of subjects even from the school. In order to escape from one difficulty we leapt into a graver one, for the result of this change was a too early specialisation which rendered abortive the beneficial effects of education by making it too narrow; while the real problem, *viz.*, the danger of cram, was not solved at all, for that is the effect of attaching too much importance to examinations which, in their very nature, are bound to be, to a great extent, mechanical. The consequences produced by the system may be brought home to all by a few examples. It has now become possible for one to be a graduate of this University without reading a page of history or geography. Now, is that a desirable condition of things? In modern times, can a man be considered to be properly educated who does not know the history either of his own country or of that splendid Empire of which he aspires to be a worthy and equal citizen? How will he be able to perform his duties as a citizen? This early specialisation has become a real danger to the country, both politically and socially. For those students who graduate without receiving any training either in history or logic—and they are a large number—generally develope into a class of dogmatic persons with very crude ideas about society and the State—they are naturally a hindrance to all social progress, and they are the very people who are the first to fall an easy prey to interested persons who want to make political capital out of them. On the other hand, there emerges another set of men who do not receive any training in the sciences; the Book of Nature remains for ever a sealed book to them, and for anything that matters they might as well have been living in a mediæval world as in this.

The supporters of the existing system can, with some justification, say that this system has made research possible by deepening the study of any special subject. And this is quite true. But this fact has also to be borne in mind, that—though fostering a spirit of research ought to be the aim of the University—it should not be carried out at the cost of sacrificing the interest of the majority of the students who really come to the University for general education alone. Bearing in mind the existing intellectual condition of India, it must be admitted that its universities, for some time to come, shall have to look upon the imparting of general culture as, if not their sole aim, at least as the major portion of their work. In that case, it is only reasonable to expect that the University should not fail in its chief aim by giving preference to a cause which affects only a very small number of its students.

But the most surprising fact is that there is really no hostility of interests between the two aims—or rather, in order to attain the greatest success in each, one has to be based upon the other; and that room may be found for both in a rational and harmonious system of education. If, giving up the injurious idea of an early bifurcation of studies, we draw up a scheme of general studies up to the intermediate classes and then allow for specialisation, we shall have a system which will impart general education to all and, at the same time, provide for specialised study suitable to the individual abilities of the students in the last four years of college life. And specialisation, thus being based upon a general culture, will have a greater chance of leading to fruitful research work for the more a student is carried into the deeper study of a subject the more will he be aware of the interdependency of the different subjects—and here his general culture will come to his help.

Though this is not the place to go into a detailed account of the suggested curriculum a general idea about it may be given by the statement that it is intended in this scheme that a student before he comes for his B.A. degree must have gone through a course of studies giving him the elementary general ideas at least of some subjects, *viz.*, geography, history of India, history of England, logic, mathematics (up to the matriculation standard), at least two (if not more) of the sciences, and an adequate command over the English and the Bengali languages—(the latter course including an elementary knowledge of Sanskrit). If the curriculum appears to be heavy, and if it be apprehended that it will encourage cram, the right remedy is to be sought in the direction of modification of the examination system. Further, it may be pointed out that

SEN, BENOY KUMAR—*contd.*—SEN, BIPINBEHARI—SEN, Rai BOIKUNT NATH, Bahadur —SEN, RAJ MOHAN.

the suggested change also holds within itself the best solution for the problem of the "alarming rise in the number of successful candidates" if the state of things be indeed alarming, and really be in need of being remedied.

In conclusion, be it said that in this paper only one particular aspect of the educational problem has been touched, *viz.*, that of general culture. But, in order to make it "specific", education must be made both general and vocational; and a step in the right direction would be the starting of colleges of technology and commerce.

SEN, BIPINBEHARI.

The conditions of admission to the University are not satisfactory and need modification:—

(*a*) The matriculation standard should be so raised as to require a better knowledge of English. Instead of prescribing a number of books indicating the standard a few text-books should be prescribed and greater importance should be attached to the practice of speaking in the English language.

(*b*) Less importance should be given to the study of classics and mathematics; and an elementary knowledge of the history of India and of England, as well as of geography, should be made compulsory. Under the present system a student may pass through all the stages of his university career without even an elementary knowledge of the history and geography of his own country. Besides, I would suggest the introduction in the matriculation curriculum of elementary physics, mechanics, chemistry, hygiene, botany, and drawing as optional or additional subjects.

(*c*) There should not only be a provision for education, but a provision for the encouragement of education. The number of Government scholarships, now very small, should at least bear some reasonable proportion to the vastly increasing number of matriculation and intermediate students. Every secondary school affiliated to the University should be required to found scholarships proportionate to the number of its students to enable the poor, but deserving, students among them to have the benefit of a university or high class technical education.

SEN, Rai BOIKUNT NATH, Bahadur.

I would suggest a medical examination and a certificate of fitness before admission.

SEN, RAJ MOHAN.

It seems to be the general opinion among the teachers of colleges that the present standard of the matriculation examination is too low to enable the students to follow the University courses just after passing that examination. But, speaking for myself as a teacher of mathematics, I wish to say that I do not find particular difficulties in this respect, since I take the students as I find them, and begin where they ended their mathematical studies in the schools. I should, of course, be glad if they came better prepared, for, in that case, it would be possible for me to begin a little higher work with them at once. There are, however, other considerations for which I also wish the matriculation standard to be raised. The boys, as they come at present from schools, have to be taught, for a year or more, entirely like schoolboys, and not like college students, for they cannot at all be left to themselves. This seems to me to lower the standard of college teaching. Moreover, secondary schools are not meant, I think, only to prepare boys for the matriculation, but also

SEN, RAJ MOHAN—*contd.*—SEN, Dr. S. K. —SEN, Rai SATIS CHANDRA, Bahadur—SEN, SATISH CHANDRA—SEN, SURYA KUMAR—SEN GUPTA, HEMCHANDRA.

for the education of those boys who are obliged to finish their education in those schools. I do not think the number of such boys is small. But, on account of the low standard reached by secondary schools, they do not now find themselves very useful when they have finished their education in those schools, and do not know many things which it would be of great practical advantage to them to know. For the good of this class of students I consider it to be highly desirable to revise the curricula of secondary schools, both by raising the standard of teaching in the subjects at present taught, as well as by increasing the number of the subjects by a few more.

SEN, Dr. S. K.

Stricter matriculation, teaching of I.A. and I.Sc. in higher grade schools, uniforms, dresses, badges.

SEN, Rai SATIS CHANDRA, Bahadur.

The present system is satisfactory if some modification is made in the course prescribed, *e.g.*, the study of history and geography should be made compulsory. The introduction of a school final examination will not be an improvement. I may suggest another course—the matriculation standard may be made a little higher and the I.A. and I.Sc. courses may be abolished.

SEN, SATISH CHANDRA.

The present conditions of admission to the University of Calcutta are not satisfactory. Students going up for university education should have a broader grounding. Under the present system, there are four compulsory subjects, *viz.*, three languages and mathematics, and two additional subjects to be chosen out of a group of five. This choice should not be allowed. History (both Indian and English) and geography (general knowledge of the world) should be included in the compulsory course, while mathematics and a classical language as additional subjects may be done away with. A bit of elementary physics, chemistry, and hygiene may also be included with advantage as alternative subjects. The syllabus should be so framed as to enable the students to have a broad grasp of the subjects. English should carry 200 marks, and each of the other subjects 100. The minimum pass marks in English should be 40 per cent, and in each of the other subjects 33 per cent. Forty-five per cent in the aggregate should be required for a second-class and 60 per cent for a first-class certificate.

As success in the matriculation examination is essential to admission to the University it is desirable that there should be a few high schools under its direct control and management.

SEN, SURYA KUMAR.

The present condition of admission to the University of Calcutta after success in the matriculation examination is satisfactory.

SEN GUPTA, HEMCHANDRA.

So many options should not be allowed to the matriculation boys. History of India, history of England, elements of geography, and elements of science should be

made compulsory, in addition to English literature, vernacular, one of the classical languages, and mathematics. Under the present regulations many alternative questions are set to the matriculation boys. This system should be stopped at this stage. If this cannot be stopped less alternative questions should be set.

SEN GUPTA, Dr. NARES CHANDRA.

No; but the fault lies with schools. I have already suggested certain reforms about secondary education. I will summarise the chief among them under this head:—

(*a*) There should be an efficient board of education, who should replace the Director of Public Instruction and the inspectors, and be in direct touch with all branches of secondary education. It should have large powers of initiative, which a director has not.

(*b*) The courses of instruction should be remodelled and diversified so as to make secondary education complete in itself and to qualify students who have passed through a full course to start life in different spheres. One of these various courses, which should be arranged to lead up to the University course, should include:—

(i) A regularly graduated course of elementary science.
(ii) A full course of the histories of India and England and a fairly full course in ancient history.
(iii) A full course of geography.
(iv) A complete course in the vernacular.
(v) Elementary courses in a classical language.
(vi) A good practical knowledge of English.
(ii) Mathematics, up to the standard of the additional course for the matriculation
(i) Practical lessons in observation and experiment.
(c) Elementary logic.

Roughly speaking, the standard ought to be much the same as that of the first examination in arts under the old regulations of the Calcutta University.

(*c*) Improved and up-to-date methods of education should be introduced. With these I should think it quite possible to impart the quantity of knowledge I have indicated above within nearly the time now taken in high schools without exhausting the boys and girls. Books should be largely dispensed with in the lower forms and students encouraged to read on their own account books outside the curriculum in all subjects.

I do not think there need be a matriculation examination including all these subjects if the efficiency of schools is secured.

(*d*) Teachers should be improved and head masters made responsible heads of schools. A race of first-rate headmasters of schools should be brought into existence by attracting first-rate men to the work.

SEN GUPTA, SURENDRA MOHAN.

I have already mentioned the changes in my general memorandum. The matriculation does not provide that amount of general education which would help to benefit a student to take advantage of instruction imparted in the college classes. Games and moral training should be made compulsory in the schools, though there need be no formal examination in them.

Serampore College, Serampore.

Serampore College, Serampore.

No; in this connection, the real point to be borne in mind is the fitness of the student to profit by college lectures in English. The present procedure does not adequately secure this in the great majority of cases. We think it may be possible for the University to arrange for a special test in English qualifying for matriculation in the University. For all other subjects the school record may be relied upon provided satisfactory arrangements are made for the adequate inspection of accredited high schools, and the proper supervision of their studies.

So far as English studies are concerned we suggest that they should include:—

(*a*) A thorough study of some good manual of grammar and composition. We do not believe in the modern neglect of grammar. Calcutta students of former days minutely studied a good solid work like Angus's *Handbook of the English Tongue*, and we think it is generally admitted that they succeeded in acquiring a knowledge of English, theoretical and practical, distinctly superior to that acquired by the students of our day.

(*b*) Constant exercise in writing plain English prose from dictation by the teacher.

(*c*) Practice in the reproduction of a story read by the teacher in class.

(*d*) Wide reading in simple English prose. It would not be difficult to select half a dozen or so books dealing in a systematic way with a large variety of interesting subjects, historical, mythological, biographical, geographical, religious, moral, and written in a style requiring no elaborate explanation. Under present conditions the average student beginning his college studies can hardly write, much less speak, one simple English sentence without a mistake, and his ignorance of men and things, past and present, is appalling. In his first week in college he begins a study of Milton's Sonnets or L'Allegro. Though he has passed his matriculation examination in the first division he will speak of Milton as a Greek writer and Cromwell as a Roman general. The aim of the high school course in English should be to make all this impossible. Every student beginning his college course should be able to write simple English with correctness, and should have a good store of general knowledge. This may, in our judgment, to a large extent, be secured by a carefully directed course of reading on the lines suggested, with constant essay writing based on the material read. The utmost care is required in the selection of books. A number of simple English poems should be set for learning by heart.

The special examination in English might be for one day, and might include four papers of 1½ hours each:—

(i) Grammar and composition.
(ii) Questions on general knowledge based on the English books read, and with a wide selection.
(iii) An essay based on material obtainable in the recommended books.
(iv) Dictation, and the reproduction of a story.

For the general school syllabus we recommend, apart from English:—

(A) Elementary mathematics.
(B) One language, classical or modern, European or Indian. If a candidate offers his own vernacular it must be studied with a far greater degree of thoroughness than is at present expected.
(C) General elementary science, with a certain amount of elementary experimental work.

We think such a course better at this stage than a study of the elements and technicalities of one particular science. What the average Indian boy needs is elementary scientific knowledge about the common phenomena of Nature

Serampore College, Serampore—*contd.*—SHARP, The Hon'ble Mr. H.

and things in general, and a more scientific attitude in interpreting common problems. The teaching should be accompanied by several dozen definitely indicated simple experiments and demonstrations, having as their object the inculcating of the scientific habit in young minds. As an indication of the kind of scientific teaching we have in view we may refer to a work published by Ginn on '*The Elements of General Science*, with an accompanying *Laboratory Manual*. A syllabus definitely adapted to Indian conditions would be desirable.

(D) General geography—at present, this subject is optional, and so it is not taken by a number of students. It ought to be impossible—though it has actually happened—for a student in the matriculation class to argue that the holy city of Benares cannot be found in the map as it is a place above, and beyond, the earth.

(E) Indian history—we are aware there will be difficulties in the carrying through of the programme we have suggested, but we do not consider them insuperable.

SHARP, The Hon'ble Mr. H.

The present conditions of admission to the University of Calcutta are generally admitted to be extremely unsatisfactory. Ample evidence of this is afforded by principals and professors of affiliated colleges and has, to some extent, been admitted by the University in the establishment of a committee to investigate the examination results.

In this connection, I would refer to a memorial addressed to the Viceroy in 1906, signed by twenty-three fellows of the University. Among them were Mr. Arden Wood, Mr. V. H. Jackson, the late Mr. C. Russell, Mr. H. R. James, Mr. M. Prothero, the late Mr. Harinath De, Dr. Cullis, Dr. Brühl, Mr. G. C. Bose, the late Mr. E. M. Wheeler, the late Father Lafont, the late Lieutenant-General Sir Pardey Lukis, and Mr. Heaton. These fellows contended that 40 per cent should be the pass mark. They expressed themselves as dissatisfied with the minimum which they suggested and considered 50 or 60 per cent preferable. They deemed it desirable that courses should be simplified and that the standard required for passing in them should be considerably raised. They considered that the new draft regulations furthered the former end, but that the proposed changes in the minimum of marks were manifestly inadequate. They quoted a memorandum circulated by Sir Asutosh Mookerjee, which stated that it was the almost universal complaint among college lecturers and professors that a large majority of the students who pass the entrance examination is obviously unfit to pursue a university course with advantage, and that there could be no doubt "that we have reached the ebb-tide of high education principally by reason of the notorious inefficiency of our schools and the lowering of the university standard to suit the 'average capacity of pupils' prepared for the entrance examination by these schools". I do not know whether it was due to this memorial that the pass mark in one of the English papers was raised to 40. But it was necessary to get no more than 32 per cent in the other English paper (an alternative being 80 per cent in the two papers together) and, with the exception of vernacular composition, the pass marks in the two other compulsory papers were fixed at 30 per cent.

It will be interesting to see whether facts and figures corroborate the widespread opinion that the conditions of admission are unsatisfactory, and have even deteriorated, and whether there has been any improvement since the memorandum just alluded to was circulated.

In the first place, signs of improvement in the schools are lacking, whether we look at the qualification of the staff (which is the main thing) or at their pay:—

(*a*) Unfortunately, figures regarding qualifications previous to 1911-12 are not available. But the figures of that, and of the last, year may be compared,

SHARP, The Hon'ble Mr. H.—*contd.*

both for Bengal and for certain other provinces, the latest statistics for which have recently come in :—

Province	Percentage of trained teachers to total of teachers in secondary schools in		Percentage of teachers possessing a degree to total of teachers in secondary schools in	
	1911-12	1916-17.	1911-12.	1916-17.
Madras	67·0	64 01	22 3	20·28
Bombay	18 8	22 5	24·1	26·6
Burma	29 0	4·72	1 7	2 0
Bengal & Eastern Bengal and Assam . .	19 6	...	7 0	..
Bengal	...	18·7		11 8

The figures for 1911-12 are for Bengal, as then constituted, and Eastern Bengal and Assam. Those for 1916-17 are for Bengal, as now constituted (that is, *minus* Assam and Bihar and Orissa, but *plus* the Eastern Bengal districts). Bengal shows no improvement as regards training and is far behind Madras and Burma in this respect. There has been some improvement as regards academic qualifications; but Bengal is in this respect far behind Madras and Bombay. (The Burma figures are vitiated by the existence of a large number of vernacular middle schools.)

(*b*) The pay of the staff may best be computed by considering the average cost per pupil, of which it forms the larger share. This is shown below for pupils in secondary English schools for boys :—

Province.	Cost per pupil in a secondary school for boys in	
	1906-07.	1916-17
	Rs.	Rs.
Madras	23 5	29 8
Bombay	37 6	47·5
Burma	49·9	63 9
Bengal	21·5	19·9
Eastern Bengal and Assam	15·5	...

Among these provinces Bengal is the only one which shows the lowest rate, and no substantial improvement

In the second place, the percentage of success at the matriculation in Bengal has risen markedly. In the quinquennium 1903-07, it was 41·1, in 1908-12 it was 65·7,

SHARP, The Hon'ble Mr. H.—*contd.*

and in 1913-15 it was 63·8. I have not, as I write, figures for the other universities. But the variation has probably been less, or in the opposite direction. Thus, in the Bombay Presidency 47·1 per cent of the candidates passed the examination in 1906-07, 50·4 in 1911-12, and 37·3 in 1916-17.

The upshot is that, since 1906, when the vice-chancellor gave so gloomy a view of the conditions of admission, there has been no improvement in the schools as a whole, and yet the conditions of admission have become more easy. The latter change dates from 1907; for the percentage of success in that year rose suddenly from 26·3 to 57·7 and has continued since at a figure high in proportion to that of earlier years.

The reason for the poor quality of the students admitted lies in the poor quality of the schools. It may be asked why this fact has not been faced, and why, notwithstanding the stagnation of the schools and the introduction of the new regulations, the standard of admission appears actually to have been lowered with effect from the year in which that change took place. There are two main contributing causes:—

(i) The system of recognition is defective.

(A) The members of the syndicate can hardly be expected to have any first-hand knowledge of the school. They may read the reports of Government inspectors but they are not necessarily bound to follow the recommendations made by those officers, nor do they always do so.

(B) A university cannot control schools; but control is the duty of the Department of Public Instruction. The result of a dual authority has been disastrous. Mr. Hornell said in his last report:—"The dominance of the university matriculation examination over the curriculum, and the fact that the majority of the schools still acknowledges no law and submits to no supervision or guidance other than that which that examination imposes on them are important factors in the situation".

I can say from experience that this is entirely correct. So long as a school can retain the privilege of presenting matriculation candidates it does not care what else happens. The authority of the local Government, which can be brought home only through the withdrawal of what are often insignificant grants and of scholarship rights, is weakened; and as the attainment and retention of the right of recognition is no test of a school's efficiency the schools are really under no control whatever. This condition of things has been rendered still worse by the practice pursued by the University of pushing their control beyond the limit of recognition to the length of interference in internal affairs, especially in discipline, the upsetting of the orders of the local Government, and the issue of mandates in defiance of the rules of the local educational manuals. Examples of this can be given.

The result of this is that the work of the inspector is hampered and his advice ignored. Many schools are at no pains to improve themselves. Discipline is undermined. The effect is described in chapter 8 of the report of the Bengal District Administration Committee.

The remedy is that which was suggested by the Indian Universities Commission of 1902—the transfer of the powers of recognition to the local Governments and to State Durbars. This system has been adopted in Madras, where, I understand, the University had no desire to add to its functions the mass of work entailed in an investigation of schools matters. It has also been adopted in the case of the Benares Hindu University. The note appended to the report of the commission of 1902 by Sir Gooroo Dass Banerjee admitted the propriety of making recognition the act of Government in the case of departmental and aided schools, and denied it only in the case of unaided private schools. But even the unaided school is a part of the school system, which is the proper concern of Government. If a private school chooses to come within the circle of recognised institutions, which possess privileges of a public nature and many of which are maintained or aided by Government, it must, at the same time, accept the responsibilities of that privilege and submit to Government inspection, control, and recognition. The system of

SHARP, The Hon'ble Mr. H.—*contd.*—SHASTRI, Dr. PRABHU DUTT.

recognition by the University, though it has not worked amiss in other provinces, where (it is understood) the University is content to be guided by the advice of the department, has broken down in Bengal. But the prospects of a Bengal possessed of several universities, each endowed with separate powers of recognition, are impossible. Nothing could result but complete chaos. It is necessary that there should be a single recognising authority separate from all the universities. The only authority capable of performing this function is Government. Its inspectors visit the schools; the other matters of school administration, such as grants, scholarships, and the maintenance of inter-school rules, are in its hands; it is without bias. No other authorities possess similar qualifications. It is frequently objected that the recognition of schools by Government would result in a restriction of higher education. This is an offshoot of the common libel that Government desires to crush higher education. Government does not wish to crush, but to improve. The extinction of a few of the worse schools would do no harm and, by instituting a wholesome example, might do considerable good.

(ii) The system of examination reacts banefully upon the schools and is in itself ineffective The last report of the Director of Public Instruction, United Provinces, indicates that boys who are incapable of passing the test in that province migrate across the border in order to avail themselves of the facilities of the Calcutta matriculation examination. The scale on which the examination is conducted is impossible and must always result in the application of a mechanical, impersonal, and hence imperfect, test. The examination is used as an entry not only into the University, but also into other roads of life. Hence, other authorities, as well as the University, should be concerned in its administration—both the valuing of the papers and also the framing of the courses, which, at present, are held to be too narrow for the purpose in view (*vide* my remarks under question 13).

A school-leaving certificate should be established. The final authority should be Government, but the work should mainly be performed by a board under the chairmanship of the Director of Public Instruction and containing representatives of the universities, of the schools, of various kinds of employers, and the whole of the superior inspecting staff. The candidate should be judged on his school record, his examination papers, and his oral test. The model of the system established in the United Provinces should be imitated. The difficulty is that the number of schools in Bengal is too large for the effective working of such a system with a single board; hence, the examining functions should be delegated to a few subsidiary boards established in the different divisions, subject to some moderation by the central board. It may be found impossible to extend the system to all schools in the first instance because of their numbers and the inefficiency of some of them. The matriculation examination exists side by side with that of the school-leaving certificate in the United Provinces, apparently without injurious results. But, if the system is at first only partially applied, every effort should be made to render it universal at the earliest possible opportunity in order that the inconvenience of a double system may be avoided. One of the advantages of the school-leaving certificate is to be found in the sense of responsibility which it will instil into the teacher of these schools, whose opinion of the pupils, as embodied in the record, will undergo scrutiny by the examining board.

SHASTRI, Dr. PRABHU DUTT.

The present conditions of admission to the University of Calcutta can hardly be called satisfactory. I would suggest the following changes :—

(*a*) The University regulations regarding the matriculation syllabus should be revised so as :—

(i) To include history and geography as compulsory subjects.

(ii) To raise the standard of test in English.

(iii) To institute a *viva voce* test in English reading and conversation.

(iv) To avoid specialisation at such an early stage by limiting the practice of setting alternative questions.

(v) To give more freedom to paper setters in framing their questions and in the distribution of marks.

(vi) To demand more adequate arrangements in schools for the teaching of English, especially during the last two years of the school course.

(*b*) Students should have a better command over English when entering the University. English should be taught by Englishmen, so far as possible. In any case, the teaching of the subject should not be in the hands of an *untrained* teacher. Special attention should be paid to students' pronunciation, articulation, modulation of the voice, etc., and there should be more of reading and conversation exercises, and less of translation and retranslation.

(*c*) I have had opportunities of testing graduates and undergraduates of Calcutta as to their general knowledge of elementary geography but regret to say that I have been greatly disappointed with the result. Students could not possibly take any real interest in the great movements and happenings of the world if they are ignorant of the most elementary facts and details of geography and of the most outstanding facts of Indian and English histories. In this respect Bengal can, with advantage, follow the example of the Punjab, where the teaching of geography and history has undergone a marked change during recent years and is now being conducted on sound and systematic principles, which leave no room for unintelligent cram.

(*d*) The standard of attainment in mathematics should be raised. Almost every year questions are put on the most elementary rules in arithmetic, including simple multiplication, division, etc., and, besides, a number of alternative questions are asked. It is too early to specialise at this stage; hence, the number of alternative questions should be very limited, and the paper should not be too easy. I have known cases in recent years in which a student who repeatedly fails in mathematics at the Punjab matriculation examination comes down to Calcutta and gets through without any difficulty. Of all the Indian universities that of Calcutta seems to have the easiest test in mathematics for the matriculation examination.

SINHA, Kumar MANINDRA CHANDRA.

The matriculation examination standard is low, especially in English. Students entering the University show a lack of knowledge of English, and professors are seriously handicapped in teaching students who have not this knowledge, and this leads to failures and disappointments. The standard for entrance to the University must be raised. For those not desiring to enter the University a special school-leaving examination should be introduced and certificates granted by the heads of schools, in collaboration with the inspectors of schools, which should testify to the pupil's ability and regular attendance in class. These certificates should be recognised in business circles and by Government. This would obviate much of the rush students blindly make for the University courses.

SINHA, PANCHANAN.

The present conditions of admission are, on the whole, fairly satisfactory. I would suggest that greater facilities be granted to private students, and the minimum age-limit should be done away with.

SINHA, UPENDRA NARAYAN—SIRCAR, ANUKUL CHANDRA—SIRCAR, The Hon'ble Sir NILRATAN.

SINHA, UPENDRA NARAYAN.

Matriculation should be the minimum standard. Under the existing conditions a student may find his way into the college classes, and may even go in for the highest university degree with lamentable ignorance in history and geography. Some knowledge of history (Indian and British) and geography (with special reference to India) is essential for a student to be able to profit by university training.

SIRCAR, ANUKUL CHANDRA.

No; before admission to the University a student should have a general course of training, *i.e.*, he should have acquired a fair general knowledge of the following compulsory subjects:—

(*a*) English language.
(*b*) Bengali (including Sanskrit).
(*c*) Elementary science.
(*d*) Mathematics.
(*e*) History (of India) and geography.

SIRCAR, The Hon'ble Sir NILRATAN.

I am not satisfied with the present matriculation examination.

Students should certainly study elementary chemistry, elementary physics, if not some other scientific subjects, in the pre-matriculation stage. Both history and geography should be compulsory.

Between the matriculation stage and the collegiate studies there should be an intermediate stage in which a student may prepare in the particular groups of subjects which should form the basis of the future courses which he intends to follow in the graduation stage. I would have a two years' course for the intermediate classes or colleges.

There should be a large variety of courses in the intermediate examination in each institution. I should mention the following, amongst others, as essential:—

(*a*) English—classical, as well as practical, examination (written and oral).
(*b*) Classical—Sanskrit, Arabic, Persian, Greek, Latin, etc.
(*c*) Modern languages—Vernaculars, French, German, Japanese, etc.
(*d*) History.
(*e*) Economics.
(*f*) Logic.
(*g*) Mathematics.
(*h*) Mechanics (examination, written and practical).
(*i*) Physics (examination, written and practical).
(*j*) Chemistry (examination, written and practical).
(*k*) Zoology (examination, written and practical).
(*l*) Botany (examination, written and practical).
(*m*) Geology (examination, written and practical).
(*n*) Sanitary science (examination, written and practical).
(*o*) Agriculture (examination, written and practical).
(*p*) A higher course in chemistry (including organic chemistry) (examination, written and practical).
(*q*) A higher course in mathematics.

Every student should take six of these subjects at this stage, English and mathematics being compulsory. Drawing should be compulsory for science students, while shorthand writing should be encouraged at this stage.

SIRCAR, The Hon'ble Sir NILRATAN—*contd.*—SMITH, W. OWSTON—SORABJI, Miss L.—SÜDMERSEN, F. W.

If the course system be adopted, and examination by compartments allowed, this course will not be hard to most of our students.

After this stage there should be a three years' university course for graduation in arts and science subjects, a five years' course for medicine as well as engineering, and a three years' course for agriculture, technology, and commerce.

SMITH, W. OWSTON.

Certainly not; I think that before admitting a student to a college we should insist upon:—

(*a*) A sufficient knowledge of English to enable him to understand lectures fairly easily

(*b*) A mind sufficiently trained to enable him to take in new and unfamiliar ideas fairly quickly

(*c*) Sufficient age to make him fit to be treated as a young man or boy, and not as a child.

(*d*) Sufficient physique and constitution to make it probable that he can stand the strain of college life

(*e*) Sufficient means to enable him to support himself and buy necessary books without having to give private tuition or cook or earn his living in any other way.

For (*d*) a medical examination and a simple athletic test, such as an easy high jump, would be necessary.

SORABJI, Miss L.

The present condition of admission to the University is unsatisfactory because the students who are admitted on the result of the matriculation examination are often incapable of appreciating or understanding lectures given at college; they come up without a thorough general education because they are often prepared for matriculation by cramming. They are allowed to specialise too early, and their knowledge is narrowed down to the minimum of subjects. If the curriculum for the matriculation examination is improved on the lines of the suggestions made in recent university discussions the defect will be remedied.

The University allows a student to correct his age at the eleventh hour, thus inviting parents to make a mis-statement in a court of law. Why have an age-limit at all if such concessions are to be allowed? Surely the people who send their girls to school ought to be educated enough to know their correct age—a parent admits his child to school, say at the age of six; can his memory be so faulty that he cannot reckon six years back? Two instances have just come under my notice. One a schoolmaster, and the other a successful pleader, both educated men, have filed affidavits proving that their daughters are over sixteen, when the date entered in the school register shows them to be under age. I would suggest strict adherence to the rule or the removal of the age-limit altogether.

SÜDMERSEN, F. W.

The conditions of admission to the University are most unsatisfactory. The evil is notorious. The students come ill-taught in every subject, with a hopelessly inadequate knowledge of English and with a most limited range of mental equipment. The standard has considerably deteriorated in recent years. The improvement of the schools is a primary requisite of advance. They could do much better than they do, but still cannot do really well under present circumstances. Improvement to any reasonable level means men and money. In the meantime, the intermediate colleges (or schools) proposed above should provide a substitute.

All the subjects of a good school course should be demanded from would-be matriculates. History and geography should be compulsory, and not optional The mathematics demand should be increased. At present, it is possible for a pupil to pass mathematics by correctly working out the first four rules, supplementing this by a w propositions of Euclid. A learning by heart of a few portions of Sanskrit translations, coupled with a few Sanskrit grammar rules, will secure a pass in that subject, hilst in English he need only have learnt by heart a few essays to secure a pass.

The average boy coming to college seems to have read nothing of English—a mple passage from a newspaper or a simple conversation are equally beyond him.

But more than this—the important matter is that he has never been asked to ink even about the simplest things. He has had, in fact, no mental training. The Key ' has been his guide, and it guides him safely to a college, and the same process ntinues because he cannot, and dare not, try any other method. And by sheer toil am again saves him, and his degree is assured. But he is very largely the same boy he entered.

SUHRAWARDY, HASSAN.

There should be a minimum standard, the passing of which will render a student gible for admission into the University, *e.g.*, the matriculation. But there should so be a selective examination to test the special predilection and aptitude of a particular student for qualifying him for being admitted into a particular college, as, for stance, medical, applied science, or of technology.

SUHRAWARDY, Z. R. ZAHID.

As suggested above there should be a general examination for admission to the niversity like the matriculation, but every university college should have its own ecial entrance examination.

THOMSON, Dr. DAVID.

In my answer to question I I have already stated that, under the present conditions, our colleges contain an unduly large proportion of students whose educational tainments and capacity make real university work difficult, if not impossible. Such en ought to be automatically eliminated by the matriculation test

To make my meaning perfectly clear let me illustrate from my own experience. I eedily found that ordinary lectures to the first year chemistry class were a sheer waste time. The majority of my students could not understand me, and when they did derstand, if left to themselves, took notes in the most appalling English, which appeared ter in the class examination papers. I, therefore, adopted the practice of dictating notes, elling out all words of even moderate difficulty. This practice I found it necessary continue, in spite of the fact that chemistry got the pick of the first year students; r the subject is one of the most popular in the curriculum. One would like to be able record that each year saw some improvement, however slight, in the English attainents of the first year students. I deeply regret that I cannot say so. I fear that the ndency was, if anywhere, in the other direction; yet all had passed an examination ich, in the words of the University Calendar, was "a test (*a*) of ability to write clear, nple, and correct English; and (*b*) of intelligent comprehension of plain, modern, nglish on familiar subjects".

I fear in other subjects the matriculation examination test is equally unsatisfactory, though I now speak with less certainty. In a first year class of seventy students I remember finding five who knew how to find the area of a regular triangle. Yet the ope of the compulsory mathematics matriculation paper is ample enough.

THOMSON, Dr. DAVID—*contd.*—TURNER, F. C.

I have no quarrel with the scope of the matriculation examination as laid down in the calendar. It is sufficiently wide. And there is seldom anything to object to in the actual question papers. They generally set a sufficiently high standard. The evil lies in the standard of marking. This should be raised.

TURNER, F. C.

I am convinced that under the existing system a very large number of students are admitted to the University of Calcutta who are not properly equipped to commence university studies. This fact is proved by the following :—

(*a*) The number of students who drop out of the colleges and discontinue their studies during the first year.

(In one year at the Chittagong College over 30 per cent. of the students in the first year class left without transfer certificates.) Students find that the University course is beyond their powers. In a sense the University has broken faith with such students. It says to them, in effect, "If you are fit to pass the matriculation examination you will have no difficulty in keeping abreast of the work of a college." One trouble is that, having matriculated, they cannot go back to school, and the colleges have no machinery for bringing them up to the requisite standard.

(*b*) The number of failures in the intermediate and B.A. examinations.

If the admission test of the University were properly conducted, and the colleges did their work with reasonable efficiency there should not be more than 10 per cent of failures in any of the higher examinations.

For the matriculation examination there should be a board of examiners for each subject, and the only test should be whether or no the candidate is fit to pursue a university course in that subject.

The most important matter for a student entering the University is that he should be thoroughly acquainted with the English language, for in the college he will have to attend lectures on, and to study all his subjects in, English. No candidate should be allowed to pass in English who is not thoroughly conversant with the written language and cannot write it with reasonable fluency and correctness. An oral examination by the University would be very helpful in ascertaining which candidates are capable of listening intelligently to a lecture delivered in English. But to subject 19,000 candidates to such an examination would be impossible. It is, nevertheless, of the utmost importance that headmasters of schools should be compelled to devote attention to the teaching of correct and fluent English speech, and it might be possible to arrange for the examination of all candidates *in situ* by the deputy inspectors of schools. If it is considered that the deputy inspectors are not qualified for this work it would be possible to avoid injustice by collecting in centres the candidates who have failed in the *in situ* examinations for re-examination by the divisional inspector, or by a special examiner selected for the purpose. Any examination would be better than none. The very existence of the test would compel attention to the subject.

As regards the written papers in English I have no fault to find with the existing curriculum, and very little with the question papers of the last few years. But, from all I can gather from examiners, the standard of marking is ridiculously low.

The subject next in importance to English is mathematics, and in that subject the papers have recently been very badly set. Alternatives are set to almost every question so that candidates who find any particular detail of the subject difficult (*e.g.*, square root or Euclid I, 47) can pass it over altogether in the confidence that they will not be required to show knowledge of it in the examination. The mechanical side of the work is also neglected. I am aware that in England a few years ago far too much attention was paid to complicated fractions in arithmetic and algebra and to questions in arithmetic involving merely mechanical accuracy, and

I do not suggest that boys in Indian schools should be subjected to a large amount of meaningless toil, but they should, at least, be trained to manipulate with ease and accuracy such expressions as constantly occur in more advanced mathematics, and it cannot be denied that, under present circumstances, unless more complicated questions are set in the matriculation examination they will not be given this training in the schools. Of the other subjects I have little direct knowledge, but it is commonly reported that the test in Sanskrit is a farce. Certainly my experience as controller of a matriculation centre is that the papers are too short, as is evidenced by the fact that every candidate gives in his paper at least an hour before the allotted time has expired.

VACHASPATI, SITI KANTHA.

I am satisfied with the present conditions of admission to the University of Calcutta.

VICTORIA, Sister MARY.

We are not satisfied with the present conditions of admission to the University of Calcutta.

We would suggest:—

(*a*) The establishment of secondary schools.

(*b*) Better qualified teachers.

(*c*) Greater freedom of syllabus.

(*d*) A matriculation examination, in which the following subjects are compulsory:—

(i) English

(ii) A classical language.

(iii) A vernacular for Indian students, and advanced English, or a modern language for English students.

(iv) Mathematics, two papers:—(*a*) arithmetic and algebra; (*b*) geometry

(v) and (vi) Optional subjects—these optional subjects should not include a further examination in any compulsory subject. The list of optional subjects should include English history, Indian history, physics, chemistry, mechanics, botany, geography, other languages, European or Indian.

The papers set in English should deal entirely with English; there should be alternative courses:—

(1) A wide selection of good standard books.

(2) A smaller selection of more difficult books.

(3) Grammar and composition.

Two of the courses should be compulsory. A *viva voce* examination is desirable.

(*e*) The standard of the examination should be clearly defined. We would suggest that:—

(i) The candidate who did not show an adequate knowledge of the composition of the language in which he was examined should not be passed.

(ii) History should be examined in the vernacular, or in English, but the candidate must write correctly in either language. Facts which are not expressed grammatically should not be accepted.

(iii) Science should be examined both practically and theoretically; the candidate should pass on both papers. Knowledge of the theoretical should not compensate for the want of knowledge of the practical.

(iv) The mathematical papers should contain 75 per cent of practical, and 25 per cent of theoretical, work.

VICTORIA, Sister MARY—*contd.*—VIDYABHUSAN, RAJENDRANATH, and VIDYABHUSANA Mahamahopadhyaya Dr. SATIS CHANDRA—VREDENBURG, E. (in consultation with COTTER G. deP.)—WAHEED, Shams-ul-Ulama ABU NASR—WALKER, Dr. GILBERT T.

(v) The language papers should be of a much higher standard. A small percentage of marks should be exacted for composition in the language in which the candidate is examined.

The non-Indian candidates should be able to take Latin without French. At present, translation from a vernacular is compulsory on all. In the case of girls French is included under the vernaculars. This necessitates French being taken as a language, as well as Latin; therefore, most pupils drop Latin, which would be useful, and take French, which, under the present conditions, is useless.

(*f*) The standard of the examination should be that of the senior Cambridge examination, or the matriculation examination of the London University.

(*g*) The type of questions should be such as to exclude undesirable candidates, that is candidates not equipped with the requisite type of brain.

VIDYABHUSAN, RAJENDRANATH and VIDYABHUSANA. Mahamahopadhyaya Dr. SATIS CHANDRA.

I am satisfied with it.

VREDENBURG, E. (in consultation with COTTER G. deP.)

I have noticed that the students are generally very ignorant in geography, both of India and the world.

WAHEED, Shams-ul-Ulama ABU NASR.

It has been a general complaint that the matriculates of the Calcutta University are not by their age and equipment adequately fitted to take full advantage of college teaching or to fully avail themselves of the opportunities of college life, and that the intermediate teaching really forms part of the school teaching. It is desirable that the secondary schools, at least those under Government management, should be so developed as to absorb the two intermediate classes. At the end of the present matriculation stage a bifurcation of courses for two years should take place, one leading to the University and the other equipping the students with commercial, technical, or other knwledge necessary for useful callings or pursuits in life. This latter should lead to an examination to be called the school final examination.

WALKER, Dr. GILBERT T.

I have a very strong impression that many of the students are not qualified for admission to a university, and that the entrance examination should be made much more difficult. I believe that much work which ought to be done in school is now done in the University. In particular, I don't think that enough stress is laid in India on the training of the hands in schools, not so much as an end in itself as for its effect on the mind, by making ideas concrete that would otherwise be abstract Any boy that has used a force-pump to pump water into a tank has no difficulty in grasping the idea conveyed by the term 'head of water'. Similarly the phrases 'capacity' and 'potential difference' are perfectly easy to a boy who has played with electrical apparatus and familiarised himself with easy experiments: on the other hand, a physical student whose ideas are all derived from books cannot expect to regard them as other than logical abstractions whose properties are extremely difficult to appreciate.

WALKER, Dr. GILBERT T.—*contd.*—WATHEN, G. A.—WATKINS, Rev. Dr. C. H.—WEST, M. P.

In my experience the student class of India takes very much less readily to experimental work than the corresponding class in England, and the fact is, I think, completely explained by the difference of their attitude towards tools, games, and the use of the hands generally. The mechanic class in this country seems to me to have much more inclination towards physics than does the better educated student class, and the explanation lies in the greater amount of insight that the practical work has implanted.

I think that an early opportunity should be utilised for calling attention prominently to this state of things, and that some form of carpentering or metal-working, as well as some experimental physics in a laboratory, should be strongly encouraged in all second-grade schools. I regret that I know very little about the details of the present entrance examination; but I would certainly add to it a practical examination in which valuable marks would be given for practical work. Personally, I am inclined to believe this should ultimately be compulsory except for students of literature; but it may be that, for a time, it should be optional.

WATHEN, G. A.

I am not satisfied with the present conditions of admission to the Punjab University. A matriculate here is, in nine cases out of ten, quite unfit for higher study; in fact, unable to even understand lectures in English. The changes I should suggest would involve an adequate oral test and lengthening of the school course.

WATKINS, Rev Dr. C. H.

Undoubtedly; in Bengal examinations are made far too much an end in themselves. Passages are repeated *verbatim* by candidates who cannot explain the words or analyse the sentences, and some students are capable of learning by heart five original essays from a "cram" book of which they think they are sure to get one in the examination.

I lean to the view that the examiners could prevent this if they set the papers with that purpose. A large number of alternative questions should be given and, in return, more evidence of individual thinking should be demanded. This would give freedom to teachers and students.

It would be an advantage if "term" or "session" marks could be given, and then allowed for, on some preconcerted plan, after the University examination papers had been marked, and before the final result was announced. This would give some of the advantages of the "internal" student system, and students who had done special work would be sure of some recognition for it. This would be much better than merely accepting vague assurances from teachers. Particulars as to such work should be required by the universities.

Above all, the *tyranny exercised over student careers by malaria* should be checked. As things are, no examination failure is conclusive unless the examinee is malaria-proof.

WEST, M. P.

I attribute the low standard of the matriculation to the early age at which it is taken. I attribute to the same cause the overpopulation of the University. If it took two more years to reach the University the schools would confer a qualification worth having; it would not be necessary to send a boy on to the University in order to get the first qualification for professional employment. If the public school in England ended its course at sixteen far more boys would be sent to Oxford and would congest the pass degree schools. Moreover, if schooling were to take twelve, instead of ten years less parents could, or would, afford university education for sons not really worth it. I am, therefore, in favour of removing the intermediate classes from the University altogether and attaching them to the high schools. The B.A. course might,

WEST, M. P.—*contd.*—WILLIAMS, Rev. GARFIELD—WORDSWORTH, The Hon'ble Mr. W. C.—ZACHARIAH, K.

at the same time, be lengthened. I consider that the better class of school could teach intermediate work with a little increase of staff. This special privilege would also encourage the better school. At present the good high school has little advantage over the bad; the parents care nothing for quality.

The students of the intermediate class are still schoolboys. They are not old enough to be given the freedom of the college, nor old enough for college methods of teaching. Too young to find friends amongst the seniors they associate with schoolboys forming a most undesirable link between college and school. In every school scandal I have had to inquire into in a college town there is always the inevitable intermediate class boy at the bottom of it. In fact, the present divisions of the educational process are psychologically incorrect. I am, therefore, in favour of a school course :—

	Class.	
Primary	I—IV	7—10
Middle	V—VIII	11—14
High	IX—XII	15—18

University moderations:—

(Equal to present B.A.)
18—20
B.A. (equal to present M.A.)
20—22

I am in favour of removing from the University entirely the recognition of schools for the matriculation. The facts of this case are so well known that they need no recapitulation. On the face of it, it is absurd to charge the authorities of the University, already overloaded with college affairs, with the recognition of hundreds of high schools. It adds to their work: it adds nothing to the efficiency of the control of schools. They do not know the schools in particular, and they know nothing of school work in general. They cannot possibly inspect the schools. They can only follow blindly the inspector's recommendations, for they have absolutely no other data. The Director of Public Instruction knows the inspectors; he knows the divisions; he can, if need be, inspect. It is obvious that recognition of schools should rest with the department, which might well associate with itself a consultative body representative not of the public general but of the public who knows something of school work.

WILLIAMS, Rev. GARFIELD.

Supremely dissatisfied.

My proposals are embodied in the educational report (Printed along with the General Memoranda).

WORDSWORTH, The Hon'ble Mr. W. C.

I am not satisfied; success in the matriculation examination does not guarantee fitness for university study. I would suggest the remodelling of the matriculation examination; and the institution of a school-leaving certificate examination, qualifying for admission to colleges. But I would also permit a principal of a college to admit anyone as a student of his college, irrespective of any selection by public examination, such student to be accepted as a university student of the first year on payment to the University of a fee equal to the entrance fee for the matriculation examination. If a principal made an unwise use of this permission the discredit would recoil upon himself.

ZACHARIAH, K.

No; I am not satisfied (*See* my answers to questions 1 and 5).

QUESTION 9.

We desire to ascertain the views of our correspondents as to the use and abuse of examinations, with special reference to the educational opportunities and needs of Bengal. Will you favour us with your observations on the following points : —

(i) Whether, in your judgment, there is validity in the criticism that, in the existing university system, teaching is unduly subordinated to examination ?

(ii) Whether an attempt should be made to reduce the rigidity of the examination system and, if so, whether you consider that the use made of examinations might be varied to meet the needs of different subjects of study and of different groups of students in one or more of the following ways :—

(*a*) the teaching might for certain purposes be defined, as at present, by prescribed examination requirements ?

(*b*) the teacher might be left with a maximum of freedom and the examinations be adjusted to the courses given by individual teachers ?

(*c*) in some particular subjects or sections of a subject, though teaching might be given, there might be no test by a formal university examination ?

(iii) The limits within which examinations may serve as a test of fitness for a specific career : —

e.g.,—the professions of medicine, law, teaching, and engineering ; agriculture ; commerce and industry (including the aspects both of management and of scientific guidance and research) ; and administration in the public service.

(We shall be glad if our correspondents will concentrate their attention on the points in which they are most interested).

ANSWERS.

ABDURRAHMAN, Dr.

The written examination system is of English development. Its beginning has been traced not further than the eighteenth century. The examination for the B. A. degree in its present form was begun at Oxford in 1802.

Written examinations have never been known in India and, up to this time, private Sanskrit *pathshalas* and Arabic *madrassahs* do not recognise them.

In Germany the universities do not believe in written examinations and employ the dissertation and oral examination method for testing the educational progress and intellectual capacity of the student.

In America the system is a graft of the German on the English method ; the tendency is to reduce the number of examinations as far as possible. It is high time now that the evils of over examination in the Calcutta and other universities were removed.

In Germany a student who is awarded a doctorate appears at no written examination. In Oxford or Cambridge a student who obtains his B. A. degree appears only at one written examination, and there is not to this day any examination for the master's degree. But in India a graduate who receives his M. A. degree from the Calcutta or any other university has to appear at the intermediate, B. A., and M. A., three successive university examinations.

The overpressure of examination in the Indian universities is one of the chief causes of physical degeneration among the educated classes in the country.

The president of the Western Reserve University writes about the Calcutta University:—"A further defect under which higher education in India labours is the dominance of examination. That dominance, which has so long prevailed in England, and in so many respects disastrously, has tyrannised Indian education for more than half a

ABDURRAHMAN, Dr.—*contd.*

century. Its influence, on the whole, has been, and still is, evil. It stimulates mere learning; it represses thinking; it makes instruction a type of pump-handle and robs education of its liberalising character". Examinations, as they are in the Calcutta University, do not provide the best kind of stimuli for proper study, create artificial and fluctuating standards, and are often ruled by accidents which vitiate their value. Everything, including students and teachers, is sacrificed at their altar. There is no room left for originality, and the crushing pressure of the machine is such that all individuality is annihilated. Further, one cannot judge the individual by an examination meant for a whole class.

Lobsein in his interesting experiments performed on examinees has shown how too many examinations produce nerve strain, abnormal and subnormal mental conditions, physical and emotional weaknesses, and other pathological conditions. Modern psychology and psychiatry both demand a proper reform of the Indian system of the university examinations.

Bergson, Ebbinghaus, and Adams have proved that, though we retain comparatively little of what we learn, that which we take for 'forgotten' is not forgotten. It is that on which the faculty of memory rests. Indian university examinations ignore this and put pressure on abnormal mental activity. The student who prepares for an Indian examination "is like the unfortunate man who must move at a sudden fire alarm and throw all his goods and possessions stored in rooms, closets, drawers, and pigeon-holes at a moment's notice out of his window on the street."

Information acquired for examination is often obtained from "keys," "made-easies," and "epitomes." Such unassimilated knowledge is worse than useless since it is not only incapable of practical application, but takes up the room of better material. "Its presence weakens the potentiality of the soul".

(ii) (*a*) and (*b*) I consider that both the courses proposed should be adopted.

The first, (*a*), shall standardise education in all the constituent colleges and the second, (*b*), shall secure the professor complete freedom of teaching under careful censorship.

I do not object to the system of prescribing and recommending (with sufficient alternatives) books to be tudied. Perhaps in no country in the world do they play such an important rôle as in this country, and teachers and pupils have come to lean upon them to such a degree that perhaps they cannot all at once be abolished. They help in bringing about a similarity of method in the teaching system within the University area and, at the same time, permit sufficient variety in the mode of education. The text-book system should disappear gradually.

The system of Indian university examinations has reduced the profession to such a low level that it would not be far wrong to say that a professor in this country is a person who dictates notes to a class of students. His object generally is that his scholars should pass their examinations, and he is content to take the readiest means of attaining it. He teaches, but does not educate, and there is no 'bi-polarity', or intellectual reciprocity, between him and his students. The process unceasingly and gradually, but surely, diseducates the professor himself and, in the end, instead of making the student a copy of the teacher, reduces the teacher to become a copy of the student. He becomes as Edward Holmes would say 'machine-made' and produces nothing but 'machine-made scholars'.

I propose, therefore, that, according to the limitation imposed in paragraph (*a*) above, the professors should teach after a standard. I would then leave them with a maximum of freedom and require the examinations to be adjusted to the courses given by the individual teachers.

The best method to achieve this is that, the University examinations, as they are held now, should be abolished and college examinations should take their place. Each college, in conformity with a set standard, should examine its own students. The examiner should, in each case, be the teacher of the subject of examination, who alone is the best judge of what he has taught, and whose testimony on the student's work is the most reliable; and one external examiner, appointed by

ABDURRAHMAN, Dr.—*contd.*

the University, whose presence should help to maintain a stable standard and be a safeguard against other dangers. The results of all the colleges should be published by the University in the *University Gazette.*

(iii) My views on the value of the University examinations as a test of fitness for the public services will be found in my answer to question 15.

Law in India, as elsewhere, has always been, and is at present. very prominent among academic studies. In Europe legislation has now, in practice, taken the place of church law but it has in no way affected the position of jurisprudence in the hierarchy of learning. The schools of Pavia, Ravenna, and Bologna may have lost their prominence but the number of Italian law students at Rome, Turin, and Naples is quite numerous even to-day. The number of scholars in the faculty of law in the German universities at present is nothing less than 15,000.

In India the great importance of the subject consists in the fact that the study of it paves the way to the bar, the bench, and other offices of State. Hindu and Muhammadan laws are vested with a sacred character and the political importance of the subject is no less and this draws many of the ardent patriots to the study of law and pactice of the profession.

Indian lawyers are the pioneers of the coming reform of administration which desires government by laws to wholly supersede control by men. Thus, the study has a great importance from intellectual, religious, and political points of view. But, has the study of law received that attention from the Calcutta and other Indian universities which its importance deserves? The universities of India do not pay sufficient attention to a scientific treatment of the subject. Their only aim is to produce advocates and vakils. Legal education is imparted merely with a view to successful professional practice. The theory of law and jurisprudence is neglected. No attention is paid to specialisation in Hndu and Muhammadan and other national laws.

The Calcutta University, unlike all theEnglish, Continental, and American universities, insists that no student who is not a graduate (B. A.) shall enter the faculty of law. Thus, a student who looks forward to be an advocate, judge, or politician can make no special preparation for his vocation in life till he has taken a degree. A number of years are wasted in formal training which, say in the case of a student of science, are given to definite preparation in the science subject. How can a law student then be expected to do hie work on an equal footing with a science student? The Calcutta University is divided into three faculties:—

(A) Arts.
(B) Science.
(C) Law.

The first two faculties have been empowered to prescribe bachelor courses, hold bachlor examinations, and confer bachelor degrees in their respective subjects, but the faculty of law has no bachelor degree at all. Legal ducation has been made entirely post-gradute. This is not only anomalous, but wrong.

The faculty of law should have exactly the same status as any other faculty. A law bachelor degree should, therefore, be instituted side by side with the other bachelor degrees. I would propose some such course of study as follows for this degree (B. J.):—

English.
Sanskrit or Arabic or Latin and all the following subjects:—

(*a*) Elements of jurisprudence.
(*b*) Introductory Roman law.
(*c*) Government of India.
(*d*) Elements of Hindu or Muhammadan law.

This course consists of two languages and law. The three alternative second languages have been suggested with a view to help the student to read the original books of either the Roman, Hindu, or Muhammadan systems of law according to his future selection. This bachelor degree (B. J.) shall not qualify its holder for the practice of law, but is meant only to impart a general education in the

ABDURRAHMAN, DR.—*contd.*

subject. It will serve as a stepping-stone for higher advocateship or juristic studies. Coming to post-graduate legal education I propose that two different post-graduate degrees, one for the practice of law and the other for research should be instituted.

Those students who intend to become vakils should take up the LL.B. course, which should consist only of subjects of practical importance. The following may be suggested :—

Law of evidence.
Penal law and procedure.
Civil law and procedure.
Land and revenue laws.
Mercantile laws.
Anglo-Hindu law.
Anglo-Muhammadan law.
Medical jurisprudence.

The course may extend over two years. A practical examination relating to court practice and the conduct of cases should also be held. If it is thought desirable to keep the course, as now, of three years, the third year should not be spent at the University, but in chambers. And those students who study law with the intention of becoming professors, research-scholars, politicians, or Hindu and Muhammadan jurists should choose *one* of the following courses accordingly :—

First.

Advanced jurisprudence.
Roman law and history of Roman law.
Theory of legislation.
Constitutional law of England.
Government of India.

Second.

Hindu law (from original sources).
Anglo-Hindu law.
Hindu jurisprudence.
Hindu legal history.

Third.

Muhammadan law (from original sources).
Anglo-Mohammadan law.
Muhammadan jurisprudence.
Muhammadan legal history.

The first course shall prepare its recipients to be fit exponents of the principles of modern jurisprudence. It is imperative in our time to scientifically study legislation, constitutional law and diplomacy, political science and the sciences of statecraft, jurisprudence and comparative law. The second and third will produce scholars who will carry on researches in the yet unexplored field of Hindu law and Moslem *Fiqh* and *Usul*. The great body of the Hindu law and the *corpus juris* of the Muhammadans are waiting for laborious scholars to bring their hidden treasures to light. The LL.M. course of the Calcutta University, as at present constituted, is of very little educational value. The subjects are, in general, superfluous for practising lawyers and useless for Indian research scholars.

And last, but not least, the University should remain, as now, the seat of theoretical and professional legal learning. There is no reason for the Calcutta University to depart from its present system which is in consonance with the European systems where "the universities are not only the recognised seats of legal learning, but also through their relation to the Government, the official gateways to the public service. Through them and in no other way is admittance gained to the bench, the bar, and the high offices of the State".

AHMED, Maulvi KHABIRUDDIN—AHMED, TASLIMUDDIN, Khan Bahadur—AHMED, Maulvi TASSADDUQ.

AHMED, Maulvi KHABIRUDDIN.

(i) I am inclined to believe that the existing University system gives to weak colleges and schools room for unduly subordinating teaching to winning examination results, but I do not think the criticism can be sweepingly applied to all schools and colleges following the University course.

(ii) (*a*) and (*b*) An attempt should be made to reduce the rigidity of the examination system by varying the use made of examination to meet the needs of different subjects of study and different groups of students by a combination of the ways suggested, *i.e.*, the teacher may be left with a certain amount of freedom within the limits of certain quality and quantity defined by examination requirements.

AHMED, TASLIMUDDIN, Khan Bahadur.

(i) I do not think that teaching is unduly subordinated to examination. Certainly good care is taken to enable students to pass the examination; that does not mean neglect to impart knowledge to students.

(ii) I do not think any change is required; the examination system is not rigid at all; it is as it should be.

(*a*) I approve this.

(*b*) I do not think it advisable.

(*c*) I do not approve this also.

AHMED, Maulvi TASSADDUQ.

(i) Teaching is certainly unduly subordinated to examination under the existing system.

(ii) (*a*), (*b*), and (*c*) I would combine all the different ways as are set forth in order to test the acquirements of students. My idea is that, while giving to the teacher full liberty to frame his course of studies in a way best suited to the capabilities of his pupils, he should have in view a certain standard of efficiency, to be prescribed by the University, which his pupils should attain. In marking papers special consideration should be made for original answers, reflecting the candidates' appreciation of the subject. A variety of questions covering the whole field of the prescribed course of studies should be set and, if a candidate answers a certain number of the questions in a masterly way, he should carry more marks than one who answers a larger number by cramming prepared notes.

(iii) I will confine myself here to the profession of teaching, with which I am most concerned. Here, there should be greater differentiation between the B. T. (degree examination) and L. T. (diploma examination). For the L.T. examination there should be a one year's course after the school course, outlined elsewhere. This one year will be devoted to a study of the theory and practice of teaching only. The B.T. examination will be open only to a graduate of the University who has served as a teacher at least for a year in a secondary school. The course will be for two years, and will include theory and practice of teaching, history of education, with special reference to India and its educational problems, and educational classics. At the end of both the B. T. and L. T. courses, there will be an examination on the theoretical portion only. On passing this examination candidates will be sent away with only a pass certificate, the granting of the degree or diploma being made conditional on their satisfying the University by good work, in the actual sphere of action, for a period of two years. Arrangements may be made by the University, in co-operation with school authorities and also the inspector of schools, in order to test the fitness of the candidate for a degree or a diploma at the expiry of the probationary period of two years.

AIYER, Sir P. S. SIVASWAMY—ALI, The Hon'ble Mr. ALTAF—ALI, SAIYAD MUHSIN—ALI, Nawab NASIRUL MAMALEK, MIRZA SHUJAAT, Khan Bahadur.

AIYER, Sir P. S. SIVASWAMY.

(i) Yes.

(ii) It is difficult to suggest a satisfactory remedy to check the undue influence exercised by public examinations over the system of teaching. Teaching is now defined by prescribing certain examination requirements.

(*b*) The adjustment of examinations to the courses given by individual teachers presents insuperable difficulties and is unworkable.

(*c*) The experience of high schools with regard to subjects of teaching which are not included in a public examination induces diffidence as to the value of the remedy. It has been generally found that students entirely neglect those subjects in which there is no public examination and headmasters do not possess the firmness of decision required for the refusal of promotion to students who neglect subjects in which there is no public examination. This has specially been the case with regard to geography and Indian history.

(iii) The various professional examinations are a sufficient test of fitness for allowing persons who have passed them to enter their respective professions. The requirements of administration in the public service do not ordinarily demand the institution of any special examination as an initial test of fitness for admission to the service. After entry into the public service examinations are held in various departments in particular subjects and success in these departmental examinations is a condition of promotion For certain departments of the public service for which general ability of a high order is required a special competitive examination would be the most suitable.

ALI, The Hon'ble Mr. ALTAF.

(i) I do not think so.

(ii) No; I think the examinations, as now conducted, are quite satisfactory. I would only suggest that, in English literature, provision should be made for *viva voce* examination in order to ensure the student taking proper care to learn the correct pronunciation. Students are particularly careless in this respect.

ALI, SAIYAD MUHSIN.

(i) The criticism is, to some extent, reasonable, but subordination of teaching to examination is not so serious as not to admit of improvement.

(ii) Some relaxation may be made but, on the whole, the present system should be maintained.

(*a*) Yes.

(*b*) No.

(*c*) No.

ALI, Nawab NASIRUL MAMALEK, MIRZA SHUJAAT, Khan Bahadur.

(i) Yes.

(ii) Yes. By giving students a second chance in passing in the subject in which they have failed.

(*a*) Yes.

(*b*) No; as it is likely to create confusion and become unmanageable.

(*c*) No; as this will tend to make students waste their time.

(iii) The passing of an examination where there is no practical training should be considered as a condition precedent to students receiving a practical training, which should be made compulsory in all subjects and branches of knowledge.

ALLEN, Dr. H. N.

(i) I should say that there is no doubt that in Bombay teaching must, in the arts colleges, be unduly subordinated to examination and, as the system is much the same, this must be true also of Bengal.

(ii) (*a*) and (*b*) See my answer to question 5 (iii).

(*c*) This is done in carpentry in the first engineering examination of the Bombay University. In the new Bombay engineering courses there will only be a college examination at the end of the first year. The same is true of the work of the first year in the arts colleges of Bombay.

(iii) Some sort of examination is certainly needed at the conclusion of an engineering course. I consider, however, that very great importance should be given to that part of the test which aims at discovering if the student has learnt how to apply the knowledge he has gained to practical engineering problems.

ALUM, Sahebzadah MAHOMED SULTAN.

(i) I think that teaching is very greatly subordinated to examination. Students study the books on the lines of examination so that they may pass the examination creditably, and not to acquire real knowledge. They read the keys of those books and memorise them with the sole intention of passing an examination.

(ii) I think, to some extent, the rigidity of the examination system should be reduced, and examiners ought to show leniency to the examinees and, in that case, many more students would pass, and that would do no harm to Government or to any class of people. This will rather increase the ardour of young men which, I think, is a necessary thing. The more educated men the better.

(*a*) The teaching might, for certain purposes, be defined, as at present, specially in the matriculation and I. A. by prescribed examination requirements.

(*b*) I do not approve of it as it would involve multifarious examinations.

(*c*) This ought to be observed for the B. A. examination, and, specially in the M. A., there ought not be any text by a formal university examiner.

(iii) I think it advisable to have limits within which examinations may serve as a test of fitness for a specific career.

ANNANDALE, Dr. N.

(i) My own experience of examinations has been unfortunate. I ceased to take any part in the ordinary examinations of the Calcutta University some ten years ago, and finally severed all connection with the University, because I found that in such examinations there was a very strong tendency among the examiners to lower the standard of examination on every possible occasion and on every conceivable ground, out of pity for the individual student. My colleagues, however, who still conduct examinations, tell me that, at any rate so far as zoology is concerned, things have greatly improved in this respect. My own impression is that more harm is done by lowering the standard of examination than by insisting on the examination itself.

(ii) For the reasons given in the preceding paragraph I do not think that any attempt should be made to abolish the examination system so far as ordinary degrees are concerned, but consider that it would be beneficial if greater license were permitted so far as syllabus, etc., were concerned in the B.Sc. and other higher degrees.

ANNANDALE, Dr. N.—*contd.*—ARCHBOLD, W. A. J.—Association of University Women in India, Calcutta Branch.

(iii) In present conditions it seems to be an unfortunate necessity, especially in dealing with large bodies of students, that examinations should be made the test for admission to certain professions, such as medicine, law, and engineering. I am very doubtful, however, whether they provide any useful test in connection with agriculture, commerce, and industry; I am sure that they are quite useless in purely scientific posts.

So far as public services are concerned I can only cite my own experience, which is confined to the lower branches. I have never in my own department appointed as a clerk or assistant any man who had a university degree. The posts to which I have had to make appointments of the kind have, as a rule, carried salaries considerably above the lower limit at which it was possible to obtain the services of a university graduate, but it has been my experience that I could engage a better man by ignoring university qualifications among the candidates, giving a little practical examination of my own and insisting on a short, but strict, period of probation. By better men I mean not men who were better acquainted with rules and regulations or more capable of assimilating official routine, but men who were better able to adapt themselves to changing conditions and different kinds of work, even if their actual powers of intellect were not so highly trained. As laboratory assistants, indeed, I have, as a rule, engaged quite young boys with nothing more than "the three Rs," an active intelligence, and a good school record to their credit. So far as I am in a position to judge the graduate clerk, as at present produced in Calcutta, is a highly specialised being who has been taught that to think for himself is a breach of official etiquette He is at home only in the atmosphere he has created for himself in ordinary Government offices.

I think that junior clerks are not true legitimate offspring of a university. I would prefer to see them formed and polished in special clerks' colleges, not invested with the spurious dignity that attaches to a university degree. In England the junior establishment of public offices is not manned by university graduates.

ARCHBOLD, W. A. J.

(i) Teaching is practically entirely subordinated to examination.

(ii) (*a*), (*b*), and (*c*) I agree with the suggestions, but I consider that the association of the teacher with the examiner is desirable in the settlement of a man's place in his degree. I may point out that the number of those who would avail themselves of the opportunities provided under (*c*) would, under present conditions, be small.

(iii) This is a large question, one on which much might be written. I will only speak of the public services. My view is that examinations alone are not sufficient to decide who ought to be chosen for the work of the administration. Perhaps the best way would be that a list should be prepared on to which those could get who had certain educational, family, and physical qualifications and that, then, there should be a competitive examination to decide between them. But the needs of the various services must be very carefully kept in mind in arranging the examination.

Association of University Women in India, Calcutta Branch.

(i) We consider this criticism valid; and that one reason for the existing condition of things is the undue value put by students on examinations.

Association of University Women in India, Calcutta Branch—*contd.*—Aziz, Maulvi Abdul—Banerjea, J. R.

(ii) We consider that the syllabus for the matriculation as for all examinations needs revision:—

(*a*) That, whatever syllabus be adopted, this examination should be conducted with a view to testing thought, understanding, and aptitude, rather than to testing mere memory work. That to facilitate this object there should be no set books, except perhaps in classical literature.

(*b*) We would advocate teaching in subjects or sections of subjects not included in an examination syllabus.

Aziz, Maulvi Abdul.

(i) Yes; I think so.

(ii) (*a*) and (*c*) Yes; in (*c*) religious instruction only seems to be practicable and useful.

(*b*) Is altogether impracticable.

(iii) Separate examinations for separate professions may remain, but in no case should a University certificate be made a condition for entering into these branches, especially in medicine, engineering, agriculture, commerce, and industry. Teaching and law may be left where it is now. A particular examination to test the fitness of candidates for entering any profession should be held by each institution before taking a candidate in it.

As to the department of administration in the public services a university certificate should in no way be made a condition for entering it. The fitness of candidates should be tested for each branch of the public service by an examination to be conducted purely by Europeans.

Banerjea, J. R.

(i) So far as I know the criticism is not, generally speaking, valid. "Notes" "keys", etc., are, no doubt, published, and the object of these is to help students in passing examinations easily, but it cannot be said that the teaching imparted in colleges or in the University is unduly subordinated to examination.

[Some of my colleagues in the Vidyasagar College, however, think that the criticism is valid.]

(ii) I do not think such an attempt should be made, for that will tempt students to study even less than they do at present, and even their present studies cannot be regarded as quite satisfactory.

(*a*) Examinations cannot be adjusted to the courses given by individual teachers in a large university like ours, for that will mean want of uniformity of standard or a very large number of paper setters in a subject or subjects.

(*b*) There is no harm in giving the teacher some amount of freedom in lecturing, on the distinct understanding that this should not conflict with the courses and syllabuses prescribed by the University.

(*c*) The absence of a test by a formal university examination will, in the case of many students, lead to a neglect of those subjects or sections of a subject in connection with which no test will be held. There might be college tests, but I am afraid there will be no uniformity of standard if such tests are held.

(iii) Examinations may well serve as a test of fitness for the professions of law, medicine, teaching, engineering, agriculture, commerce, industry, and administration in the public service. Of course, university examinations serve as a test of fitness, because the existing courses (theoretical and practical) have been carefully framed and it is expected that, in connection with agriculture, commerce, and industry, the same thing will be done. For administration in the public service, in some cases, besides university examinations, some special test ought to be held.

BANERJEA, Dr. PRAMATHANATH—BANERJEA, SURENDRA NATH.

BANERJEA, Dr. PRAMATHANATH.

(i) There is some validity in the criticism that "teaching is unduly subordinated to examination"; but I am afraid the magnitude of the evil is often exaggerated by many critics.

(ii) I am strongly in favour of proper steps being taken to reduce the rigidity of the examination system.

(*a*) The teaching ought to be defined by prescribed examination requirements, but a capable teacher should not be prevented from occasionally stepping beyond the defined limits.

(*b*) A great deal of freedom may be given to teachers, but I do not consider it practicable or, under present conditions, desirable to adjust examinations to the courses given by the individual teachers, except for the higher examinations. The M. A. and M. Sc. examinations should, as far as possible, be adjusted to the lectures given by the teachers and, under the existing system of post-graduate instruction in Calcutta, it would not be very difficult to do so.

(*c*) It would be a very welcome innovation to introduce a system under which teaching might be given in subjects in which there might not be any test by formal examination.

(iii) In my opinion, university examinations, with all their drawbacks, are in the existing circumstances of the country, the best available tests of fitness for the careers mentioned. For those services, however, for which a high standard of technical knowledge is required special supplementary examinations, or periods of probation, may be insisted upon.

BANERJEA, SURENDRA NATH.

(i) Yes; teaching is unduly subordinated to examination. Students preparing for any university examination often assimilate as much of the teaching as they consider absolutely necessary for this purpose; as a consequence of this they rely upon the numerous hand-books, notes, etc., which are now flooding the market.

(ii) Certainly an attempt should be made to reduce the rigidity of the examination system; and, for this purpose:—

(*a*) the teaching might be defined by prescribed examination requirements in arts subjects; and

(*b*) the teacher might be left with a maximum of freedom and the examinations be adjusted to the *practical* courses given by individual teachers in science subjects.

Acquisition of knowledge is one thing, and the passing of an examination is quite another. Indian students have been somehow led to believe that the passing of a university examination is the goal of their existence and of their college career. Many candidates are known to have scored success at the degree examination simply by committing to memory notes given by their professors or those that are published. Consequently, the average B.A. of our universities can hardly be said to be real scholars. Why should an Indian graduate be inferior to any graduate of a foreign university, both as regards the depth and breadth of his culture?

It is because the Indian student thinks only of the particular tricks for passing his examination and is almost indifferent to the subject matter. If the question papers of several years be scrutinised it will be seen that one can easily find out from the frequency of any particular question, or set of questions, the relative importance of only those answers and the student necessarily pays his sole attention to only those parts of the subject for the purpose of passing the examination. The paper setters are also not always very careful and judicious in framing the questions. They ought to go through the prescribed text-books themselves and then make a judicious and careful selection of questions.

BANERJEA, SURENDRA NATH—*contd.*—BANERJEE, GAURANGANATH—BANERJEE, Sir GOOROO DASS.

It is a queer system in our universities which does not allow the actual teachers to be examiners of those particular subjects. The business of framing questions, when left to outsiders, is likely to bring about the defects already pointed out. Under proper safe guards teachers ought to be considered the best persons for setting examination papers in their own subjects.

If the subject has been properly taught by the teachers of colleges, and if students have not been allowed to fall into arrears during their period of study, there need be no fear entertained for their success at the final examination.

To pass a test examination at the end of a session is not a satisfactory criterion of the quality of the candidate. The class teacher, if he is intimately in touch with his pupil, can really know the proficiency or deficiency of his pupil in the subject taught, and the pupil can hardly escape the searchlight of his teacher.

In a class of 150 pupils it is hardly possible for a teacher to know all his pupils by name, far less to ascertain the level of knowledge of each individual.

Weekly exercises, conducted and corrected by a different set of teachers and held under strict supervision, might be insisted upon in every college. This system may remedy the evil of large classes, but then every college may be called upon to maintain a different staff of examiners in each subject, whose duty it will be simply to correct exercise papers *regularly* and *carefully*, and they must not be required to deliver lectures. Should the University impose this additional burden upon the slender revenues of the colleges under "private" management? If efficiency is aimed at my reply will be that this ought to be done and funds should be provided anyhow.

BANERJEE, GAURANGANATH.

(i) I think that there is absolutely no validity in the criticism that in the existing University system teaching is unduly subordinated to examination. This criticism has, however, been frequently brought forward by some unscrupulous and interested persons to bring discredit to the existing system of the University.

(ii) An attempt should be made to reduce the rigidity of the existing examination system.

(*a*) The teaching might, for certain purposes, be defined, as at present, by prescribed examination requirements. This, I think, however, should be allowed up to the B.A. pass standard.

(*b*) The system of leaving teachers with a maximum of freedom, and the examinations being adjusted to the courses given by individual teachers, should be introduced in the B.A. honours classes and in the post-graduate department of the University; for, in these cases, only one teacher is engaged in teaching a special subject under the guidance and control of the board of higher studies in that subject.

(*c*) Yes; this is quite possible in some particular subjects or sections of a subject, *e.g.*, history of fine art, comparative mythology of the *Aryan* nations, etc.

BANERJEE, Sir GOOROO DASS.

(i) The criticism that in the existing university system teaching is unduly subordinated to examination is valid only to this extent, namely, that the University regulations, by defining the extent of each subject with embarrassing minuteness, and by apportioning the marks to the different heads of language subjects with painful particularity, encourage the idea that teaching should be conducted in all its details so as to make students learn the subjects not in their completeness, but with special reference to the portions specified in the syllabuses, attaching to each portion or head of a language subject of importance proportionate to the marks allotted to it. And that idea is worked out to its fullest extent by teachers

and professors who teach their pupils not so much to learn their subjects of study, as to learn how to pass their examinations. The fault lies, therefore, not with the system alone, but with the system and the manner in which it is worked.

(ii) (*a*) The rigidity of the examination system should, therefore, be reduced by making the definition of subjects less detailed and more general, and by leaving the apportionment of marks more to the discretion of judicious examiners than to detailed specification by rules.

(*b*) But I do not think it desirable to leave to teachers the freedom of choosing their courses of study to which examinations should be adjusted.

(*c*) In regard to unimportant details of subjects there should be teaching without examination as, indeed, no judicious examiner would think of setting questions on such details.

(iii) In regard to professional subjects there should be teaching of details, but examination should be confined to testing knowledge of broad principles only because, in actual practice, very minute details have to be gone into, and they cannot all be expected to be retained in memory.

BANERJEE, JAYGOPAL.

(i) To some extent, this criticism is just and unanswerable, and a change in the system is needful.

(ii) Yes; the examination system ought to be more elastic.

(*a*) It is not safe to altogether abolish this, though a modification is necessary and possible.

(*b*) To adopt this suggestion as it is may not now be perfectly safe, though this is certainly the ideal towards which a definite step may be taken.

(*c*) Deserves consideration and trial.

Some degree of freedom given to qualified teachers is calculated to improve the existing system materially.

(iii) The examination test, with all its disadvantages, is about the safest in sifting the chaff from the corn, though, in the matter of "management", a more practical test is exceedingly desirable. A ***viva voce*** examination may supplement the present system in this respect. Practical "demonstration" by candidates at the examination of a more extensive and searching nature should form part of the examination, and a period of probationary work (apprenticeship) under favourable conditions of *real training* may be insisted upon to give a finishing touch in the case of teachers, engineers, and those engaged in agriculture, commerce, and industry.

A probationary period of service before confirmation in appointments as a supplementary test in the administrative public service is indispensable. The complete abolition of the examination test will lead to grave and mischievous consequences.

BANERJEE, Rai KUMUDINI KANTA, Bahadur.

(i) Yes; teaching is unduly subordinated to examination. In fact, examination dominates teaching. All teaching is done with a view to secure successful results in the University examinations. The teacher who can best coach, and who can give notes most suitable for answering probable questions in the examination, is considered to be the best teacher. These notes are crammed. I know of cases where M. A. candidates get passes by only reading such notes. The whole spirit of university teaching is sacrificed for the sake of the University examination.

BANERJEE, Rai KUMUDINI KANTA, Bahadur *contd.*—BANERJEE, M. N.—BANERJEE, MURALY DHAR—BANERJEE, RAVANESWAR.

(ii) (*a*) The teaching might be defined by a syllabus.
(*b*) The teacher should be given a maximum of freedom; and in the setting of question papers the teacher should take part.
(*c*) If confidence be had in the teacher, as there should be, and at present this does not exist, their certificates may take the place of an examination in certain subjects, such as practical physics, chemistry, botany, etc.

(iii) A general examination, together with certificates from the teacher, may serve as a test of fitness for a specific career, such as the professions of medicine, law teaching, etc.

BANERJEE, M. N.

(i) Yes.

(ii) (*a*) Yes.
(*b*) Yes; so far as practicable. It is quite possible in medical and engineering colleges.
(*c*) Need not be.

(iii) In medicine the oral and practical examinations are found to be surer tests of fitness than the written examination.

BANERJEE, MURALY DHAR.

(i) Yes.

(ii) (*a*) and (*b*) The examinations may be varied in the ways suggested.

(iii) In the professions specified, examinations may be partly dispensed with, and a record of the hospital, laboratory, research, or class workdone may be examined as a better test of fitness. This will encourage methodical assimilation and discourage hurried cramming. (See my answer to question 16.)

BANERJEE, RAVANESWAR.

(i) Yes.

(ii) Yes.
(*a*) Yes.
(*b*) No; there should always be a standard. The teacher may be allowed a maximum of freedom as regards the method to be followed in attaining the standard.
(*c*) Yes; in some particular subject or sections of a subject which is of a practical nature, an examination test may be dispensed with, the teacher's certificate being accepted for the purpose.

(iii) Profession of teaching :—
The present L.T. and B.T. examinations may be taken as tests of fitness for the lower and the higher sections, respectively. But the present method of examination in the practice of teaching should be done away with; the opinions of the principal and the professors under whom candidates work during their training and who, therefore, get the full opportunity of knowing the inherent qualities and attainments of students, should be held final in this matter
But these tests, as at present applied, do not ensure the best quality. There are many teachers without these university degrees who are far better than many L.T.'s, B.T.'s. In fact, a course of training cannot make any one a good teacher, though it certainly improves the quality. There must be inherent in the would-be teacher the quality required for the profession, and much depends on the recruitment. Attempts should be made to recruit the genuine quality.

BANERJEE, SASI SEKHAR.

(i) There is some truth in the criticism that teaching is subordinated to examination. The prevailing idea is to get a pass and students have the peculiar knack of passing the examinations without attaining the standard aimed at by the University.

(ii) I think the rigidity of the examinations may, in some directions, be reduced. The University has made provision for certain concessions in certain cases. For instance, when a candidate is plucked in one subject only by not more than 5 per cent. of the marks, but shows merit in the aggregate, or when a candidate shows high proficiency in a particular subject, or in the aggregate. The concession already provided for may be still further extended. At present, at the University examinations each question is valued and the examiner has not the discretion to exceed the maximum number of marks allotted to a question, even if the answer shows exceptional ability in the matter of treatment and sound knowledge of the subject matter of the question. An exceptionally brilliant student may deal with a question in its diverse aspects and may take more time to answer it than a student of ordinary merit to answer two. As a matter of fact, the former is obliged to keep himself within the limits allowed him by his examiner and shape his answer to the time prescribed. It is here that there is room for the reduction of the rigidity of the examination. I have already made my observation with respect to the practical examinations of the science subjects at the degree stage.

(*a*) I favour this view.

(*b*) This will introduce complexity, and I do not think it will be practicable.

(*c*) The only case to which this condition may be applicable is the practical examination of the science subjects. I have already expressed my views on that matter.

(iii) An examination is a sufficient test of the intellectual equipment of a man, but that alone is not an adequate index to his special capacity and aptitude for a profession. Instances are not wanting of a man of education becoming a failure in the profession he has chosen. Some practical training in the art of a profession should also be given to add to his general proficiency. For instance, in the profession of teaching the essential duties of a teacher are an all-round preparation for his work, an acquaintance with the pupil's mind, a knowledge of the principles of the teaching art, and a power to control his class. To these may be added a thorough learning in some branch of knowledge and a general culture. Thus, a teacher must not only be a man of deep learning, but he must also be a man of practical wisdom. Before he takes to his profession he should, therefore, receive a thorough practical training under expert supervision.

BANERJEE, SUDHANSUKUMAR.

(i) There is a very small amount of truth in the criticism that teaching is unduly subordinated to examination. This is simply due to the inadequacy of the staff and the equipment of particular institutions and the capacity of individual teachers. A teacher of first-rate ability can hardly be satisfie by making his course conform to the examination requirements—nothing more, nothing less.

(ii) No attempt should be made to reduce the rigidity of the examination system. The examination should be of as searching a character as possible.

(*a*) The teaching should, in almost every case, be defined, as at present, by prescribed examination requirements.

BANERJEE, SUDHANSUKUMAR—*contd.*—BANERJI, MANMATHANATH.

(*b*) The courses for the highest examinations (such as the M. A. and M.Sc. examinations of the University) should, as at present, be kept a little vague and ill-defined so as to leave the teachers and the students alike the maximum degree of freedom.

(*c*) The advanced courses should be such (as at present) as to lead to the study of original papers and prepare the mind for original investigations. Special courses may be arranged in some particular subject, or portions of a subject, for the benefit of the advanced students, in which there may be no test by formal university examinations.

The examinations should never be adjusted to the courses given by any individual teacher as this will—

(A) introduce a considerable amount of complexity into the examination affair;
(B) ruin the uniformity of the standard of difficulty of particular examinations;
(C) introduce into the examination system the weaknesses and frailties of individual teachers;
(D) convert the examination system into a system of chaos.

(iii) The use of examination, in order to differentiate one class of students from another, to test the difference of the merits of the students of the same class and to introduce a healthy spirit of competition can hardly be overestimated. It is of extreme importance that students should go through a series of examinations at the end of each year's course, all of which need not be University examinations. Such annual college examinations should be of a nature particularly adapted to test the attainments of students in the year under question. The final examination in every subject, whether it is medicine, law, engineering, commerce, or industry, should be of a searching character, and should always be conducted by the University. The final University examination may be supplemented, if necessary, by a kind of practical work adapted to meet the requirements of the specific career in question. For example, in the case of medicine, the final University examination may be supplemented by one year of hospital practice (as at present). In the case of technical education arrangements should be made after the final university examination, or at some particular stage of the university career, to send students to the great centres of commerce and industry, both at Home and abroad, so that they may have an opportunity of observing the working of the complete machinery.

BANERJI, MANMATHANATH.

(i) There is no denying the fact that in the existing system teaching is, to a certain extent, subordinated to examination and, in some cases the degree of subordination is too great. But I think that is a necessary evil under the present conditions for it is noticed that students often neglect those important branches of a subject on which minimum marks are assigned in the paper by the regulations.

(ii) (*a*) I am in agreement with the lines suggested for reducing the rigidity of the examination system.

(*b*) I am opposed to examinations being adjusted so as to suit the courses given by individual teachers, at least in the lower stages, for this would be impracticable and undesirable. Of course, teachers may, with advantage, be given freedom in teaching. I insist that the present system of including outsiders amongst the paper setters is salutary and should not be dispensed with.

(*c*) I think there is much expediency in the condition contemplated, but I want to impress that some sort of practical examination must be a necessary test in every science subject.

BANERJI, MANMATHANATH—*contd.*—BANERJI, The Hon'ble Justice Sir PRAMADA CHARAN—BANERJI, SURENDRA CHANDRA.

(iii) As regards the test of fitness for specific careers the examination has a good value. In case of medicine and engineering the test is quite sufficient and graduates are quite fit to practice in specific professions. But, in the case of law and teaching, the result is not quite satisfactory and I think they lack practical training. In the case of law students a dozen of moot-courts in the year is quite insufficient; I think a year of attendance in a district court, both civil and criminal, is more necessary than the percentage of attendance in the college and the number of years of study. As regards the teaching faculty graduates may be proficient in theoretical knowledge as tested by the examination, but may be found wanting in actual training work and class management. Something may profitably be devised to counteract this deficiency.

BANERJI, The Hon'ble Justice Sir PRAMADA CHARAN.

(i) I think there is some force in the remark that in the present university system teaching is subordinated to examination. This, however, is inevitable in order to secure uniformity.

(ii) (*a*) I think some attempt should be made to reduce the rigidity of the present system by adopting this method.

(*b*) and (*c*) The other two methods, I fear, would be unsuitable.

(iii) In the professions of law and medicine the best test of fitness is success in the prescribed examinations. This, I believe, is the test applied in England and I cannot think of any other. I am not in a position to express any opinion at regards other subjects.

BANERJI, SURENDRA CHANDRA.

(i) In the existing system of university examination teaching is unduly subordinated to examination. An examination of the University is conducted by a body of examiners who frame the questions according to their views, without knowing how much has actually been taught by persons actually engaged in teaching. The examiners are supposed to be guided by a prescribed syllabus in every subject, but the syllabus is, in many cases, too vague to restrict the range of questions and, thus, examiners are at liberty to frame questions according to their own standard of proficiency for a certain examination. Teaching is therefore, modelled to meet the requirements of a certain body of examiners, and the result is that a considerable mental and physical strain is imposed upon students, for they are compelled to cram in order to get through an examination and, far from creating a lively interest among students, teaching becomes a burden to them. Thus, in my mind, real teaching is unduly subordinated to examination.

(ii) (*a*) Teaching should be accurately defined.

(*b*) The examining body should be so constituted as to consist of a fair percentage of internal examiners, *i.e.*, of persons actually engaged in teaching. The external examiners (whether paper setters or paper examiners) for an examination should know on what lines teaching has been conducted and should restrict their extent of enquiry to those lines. In the examination of a science subject the production of a record of practical work done by every student should be made compulsory and a certain percentage of the total marks for the practical examination should be assigned to it. The record must be previously approved and signed by the teacher under whose direction the student worked.

(*c*) There ought to be a test by the University for all subjects taught for an examination, and the test may be based on certificates of proficiency from teachers.

BANERJI, UMACHARAN.

In my judgment the criticism that in the existing university system teaching is unduly subordinated to examination is quite valid.

(ii) (*a*) The teaching might, for some purposes, be defined, as at present, by prescribed examination requirements.

(*b*) The teacher might be left with some degree of freedom.

(*c*) In some sections of a subject, but not in some particular subjects, though teaching might be given, there might be no test by a formal university examination.

(iii) I fully approve the opinion that examinations may serve as a test of fitness for the specific careers mentioned in the question; but an additional test might be introduced in special cases, particularly in respect of administration in the public service.

In ancient Indian universities, at any rate in those of which we have got authentic accounts, teachers and professors worked *gratis*; they accepted no remuneration for their work; those who taught for pay were called *Bhritakadhyapikas* (*i.e.*, *salaried professors*) and stigmatised in the same way as their compatriots the sophists of ancient Greece in later times. The tradition of free tuition has been preserved up to the present day in modern Sanskrit *tols*. In those ancient times the kings and emperors made ample provision for the residence, feeding, clothing, etc., of the professors and the students alike.

In the Nâlanda University there were ten thousand students, one thousand lecturers, five hundred assistant, or additional, professors, and ten eminent professors. The entire cost of the university was met by the reigning kings. Free from all anxiety regarding their maintenance, teachers and students alike devoted themselves, heart and soul, to their studies and other duties; and the success of the university training was remarkable.

The conditions of modern life and society are, however, quite different; and we cannot expect to have professors now working without remuneration or on a miserable pittance for their bare subsistence. The teaching profession needs great improvement. The cost of living nowadays has greatly increased. To command the respect of the pupils and the general public teachers and professors should have increased emoluments. Besides, large numbers of able youths should be attracted to the teaching profession—this is a great *desideratum*. Teachers and professors should be placed, *pari passu*, to the extent practicable with the members of other services under Government. The prestige of the profession has of late been lowered considerably; what a sad contrast to the high position which teachers occupied in the different parts of India from the remotest antiquity down to the middle of the last century. To improve the profession the following steps appear to be urgently needed:—

(A) Graduates of great distinction, of good moral character and good social standing should alone be eligible for lectureships and professorships in a college or university.

(B) None but teachers of at least two years' standing should have charge of teaching the intermediate college classes. At least two years' experience of teaching in the intermediate classes should be insisted upon, as a *sine qua non* to appointment as lecturers of the graduate classes; and those who have not had two years' experience of such teaching should not be hoisted upon post-graduate classes as professors. It is to be regretted that even in Government colleges untrained and inexperienced youths are often selected as professors for lecturing in post-graduate classes merely for their academic success. But such teachers cannot command the respect of the pupils. This complaint is heard in several quarters.

To make teaching efficient the teacher's status should be raised by increased salaries, as I have already stated, and they should undergo a course of

training in the art of teaching. One or two training colleges have, indeed, been established; but they are too small in number and too inadequately and poorly staffed to be popular. I would advocate the abolition of these training colleges, and recommend the inclusion of education as an optional subject for study in the ordinary curriculum of B. A. candidates. This would be a great time-saver; and we shall have a larger number of trained teachers.

BARDALOI, N. C.

(i) Yes.

(ii) I should like the examinations to be very strict in the sense that the questions should be general and comprehensive, mostly written like small essays and examined strictly. But the examinations should be every six months and, when a boy passes in one subject, he should not be examined in that subject again.

(*a*) Yes.
(*b*) Yes; but there must be uniformity.
(*c*) Yes.

(iii) Examinations there must be, but there must be practical tests before allowing a person to have degrees or diplomas.

BARROW, J. R.

(i) That examinations exercise a tyranny over the lives of most college students I take to be beyond dispute. The extraordinary prevalence of "keys", with model questions and answers and such like meretricious aids to a degree, sold by every bookseller and advertised by every post, the multiplication of lectures, and the dictation of notes all point to the fact that the task of passing the university examinations imposes an undue strain upon the majority of college students. I have referred to this matter in my answer to question 1, and can only repeat my conviction that the chief cause of the trouble is not that the university courses are in themselves very unreasonable (though the groups of subjects are too large—I consider that by the college stage there should be more specialisation), but that so many of the boys who enter college are quite unfit to do so and, in particular, have nothing like the requisite ease in the use of the English language. In my answer to question 11 I give my views on certain points in connection with the teaching of English, and the study of English literature; but consider the case of a first-year student who has taken up, among other subjects, history. It is reasonable to expect that a college student reading history will not confine himself to plodding through a single book, or part of a book, on his period, and trying to learn by heart, with the aid of a key or his lectures, answers to probable questions. One would expect him, under the guidance of a tutor, to refer to quite a number of books himself; to try to make himself familiar with opposing views on disputed points and to form his own views; to devote special attention to the aspects of his period which have most interest for him; and so forth. All this, properly done, will take most of his time and energy, even if he is perfectly familiar with the language in which lectures are delivered and the books to be consulted are written and if he is doing nothing but history. If he is so unfamiliar with the language in question that he only catches a stray sentence here and there of his lectures, and takes ten or fifteen minutes to read a page of any book which he consults; if, moreover, he has, under similar conditions, to read a mass of English 'literature' and two subjects besides, it is apparent that the task before him must be far beyond his powers. I find myself, in attempting to answer these questions, harping very much upon a single string; but no fact can be more

important to realise than this, that students who have to learn everything through the medium of English must be baffled at every step so long as they are unfamiliar with English.

(ii) (*b*) As regards the suggestion made under this head I do not think it is at present practicable.

(*c*) I believe (and I am supported by the staff of the Presidency College, Calcutta) that hardly anyone would take up any course if he had not the prospect of passing an examination at the end of it.

We ought to set clearly before ourselves the following objects :—

(A) To give a good working knowledge of modern English, as spoken and written, to all pupils in English schools.

(B) To super-add, only in the case of those who have a distinct faculty for languages, some knowledge and appreciation of English literature.

We should, therefore, pay far more attention than we do to correctness and ease in the use of English in writing and in speech. The rigidity of examinations in English would be relaxed by giving much more importance to essays and to translation from, and into, English. And once a good working knowledge of English were attained I believe the tyranny which the examination system at present exercises in all subjects would largely disappear.

BASU, P.

(i) Yes; throughout the university course, particularly during the undergraduate work, the object of teaching seems to be to prepare students for the examination. The aim of the student also is to get up so much only as will ensure success in the examination. So that the credit at the examination is usually taken to be the test of the student's capabilities and the teacher's efficiency. This, naturally, leads to a system of teaching which follows too rigidly the examinations, with all its evils of cramming, etc. The method of the examination, too, in which the marks are allotted by counting up the number of points that the student can give from the books accentuates these evils.

(ii) It would certainly be a change for the better if the rigidity of this examination system could be relaxed without, at the same time, diminishing the standard of culture attained under the existing system.

(*a*) In the lower examinations this process would be the best. The courses of study might be broadened and the examination carried on with the object of ascertaining the general intelligence of students and testing their capacity for utilising materials picked up in the course of a comparatively wide range of study. The teaching should be intensive with regard to some portion of the course, which would give the proper training to the students, whereas the rest of the course of study might be left to students to work up their capacity for, and attainment in, a university examination.

(*b*) This system can only be applied with safety in the case of the higher examinations. At present, it can be applied only to the M.A. examination. It may be extended to the new honours course in the B.A. which has been prepared by the University. This method, where carried on with a competent staff of specialists in different subjects, can alone give scope to that spirit of research and original investigation which ought to be the aim of the University to foster during the higher courses of university teaching. At present, a specialist must confine himself to the teaching of the prescribed course, and cannot directly take the students to the inner regions of research since that would be going beyond the prescribed limit. So that curiosity and interest which are essential for original investigation can be roused only if the professor happens to possess exceptional facilities to mix with the students in his ultra-

BASU, P.—*contd.*—BASU, Rai P. K., Bahadur.

tutorial capacity. But, if the teacher is given the maximum of freedom in teaching with, of course, a minimum standard fixed by the University, which must be attained, then the special lines of research may be indicated by the professor and those students who desire to have a special intimation in that subject would come to specialise in that. An examination, thus, would roughly test the number of specialists who could, if they so desired, undertake with proper opportunity and guidance, original investigation along those lines. Their capacity for this might be tested by a thesis or some other more convenient method than the examination. Thus, within certain limits, this method may be utilised to give the greatest benefit to students in matters of special study and get from the teacher the maximum of expert service of which he is capable. For example, under the existing system it is realised that the service which Dr. Brajendranath Seal can actually render to students is not a fraction of what could be made available from him if he could introduce research work into his prescribed routine lectures.

(*c*) Under this head would properly come all athletic and social affairs of the University. If these are made obligatory on students they may be given a training, to undergo which would be compulsory on their part, but for which they would have to undergo no examination at the University beyond the production of a certificate from the institution which they would attend. But it is doubtful whether such athletic and social affairs can be made obligatory in India. In Calcutta, for example, no college nor the University can ever hope to make adequate arrangements for all students as regards gymnasium, etc., or any outdoor games. The funds necessary for that would be disproportionately great. As to social affairs it is evident that the diversity of systems prevalent in actual life would make it impossible for the University even to attempt to make any one system obligatory on the whole body of students. The only thing possible under the circumstances seems to be a loose sort of club life, with a more serviceable organisation on the lines of debating societies. The want of these latter may, it seems, be supplied, with less radical changes, by developing the system of seminary work which has been established in some of the more advanced colleges.

BASU, Rai P. K., Bahadur.

(i) How far examination has subordinated teaching can be gauged from what is very often noticed during an inspection of English high schools. A boy in the preparatory class is often in doubt whether he himself or his name is the noun and a boy in the top class is dumb when asked why a flat curve does not come under the definition of a straight line given in his text-book. Teachers complain that boys do not pay any attention to fundamental principles as these are never asked in the final examination.

(ii) (*b*) Under the circumstances stated above the adoption of this, with a slight modification, appears to present the only solution. The modification I would propose is that the examination should conform to a definite standard and the teacher be given full freedom within that standard.

(iii) University examinations can never take the place of professional studies. They can, at best, form a basis for subsequent work. Even in the profession of teaching a university degree does not necessarily indicate a good teacher. In some of the professions, *e.g.*, medicine, law, etc., it is perhaps unsafe even to assume that success at an examination in a special subject indicates any special aptitude for that subject. Examination tests, other than those in the actual field of work, can only fix the minimum of educational attainments.

BASU, SATYENDRA NATH—Bengal Landholders' Association, Calcutta—Bengal National Chamber of Commerce, Calcutta—Bethune College, Calcutta.

BASU, SATYENDRA NATH.

(i) To reduce the rigidity of the examination system a failed candidate should be examined in that subject only in which he has failed—at the utmost in English, in addition.

(*b*) and (*c*) It might be made elastic by following these suggestions.

The matriculation examination may serve as a test of fitness for a specific career.

Bengal Landholders' Association, Calcutta.

(i) In the opinion of the Association the existing university system is unduly subordinated to examination. Teaching has become mere coaching to a very large extent. Notes of lectures, and frequent exercises for students, are merely meant to prepare them for examinations.

(ii) The Association is not in favour of abolishing a formal university examination, nor do they favour the adjustment of examinations to the courses given by individual teachers.

(iii) So far as the law examinations are concerned there is a just complaint that there are too many examinations. They do not think that a law degree from the University should at once qualify students to practise in our law courts. Greater attention should be paid to the study of jurisprudence and the scientific portions.

Bengal National Chamber of Commerce, Calcutta.

(i) and (ii) We are of opinion that in the existing university system teaching is unduly subordinated to examination, and it is desirable that the rigidity of the examination system should be relaxed in the directions suggested.

Bethune College, Calcutta.

Sen, P. N.
Mukerjee, B. G.
Bhattacharya, K. C.
Sen, P. C.
Chatterjee, K. B.
Chowdhury, B. K.
Roy, D. N.

(i) Yes.

Janau, Miss A. L.

(i) Not only is teaching unduly subordinated to examination, but good teaching would result, in most cases, in failure of students so taught to pass the examinations. It is, to a large extent, only by not teaching, but by passing on cram, that teachers can expect to cover enough ground to ensure their students passing. Any good teaching done is done at a risk.

The present defect is due to two main causes:—

(A) Wrong type of examination paper.

(B) Wrong type of syllabus.

These two causes would have to be removed before any of the courses suggested would be of any use.

I cannot speak strongly enough on the effect of at least some of the present syllabuses on both the mental and moral characters of those subjected to them either as teachers or as taught or, as these words are scarcely applicable, as crammers and crammed.

Bethune College, Calcutta—*contd.*—BHADURI, Rai INDU BHUSAN, Bahadur—BHADURI, JYOTIBHUSHAN, DEY, B. B., and DUTTA, BIDHU BHUSAN—BHANDARKAR, D. R.

(ii) To mitigate the rigidity of the examination system the University may dispense with the intermediate examination, this being replaced by mere college exercises. It will define certain courses of study for the B. A. degree, leaving certain extra subjects to be taught by each college according to its choice. A candidate in that case would not be admitted to the degree unless the head of the college certified as to his having satisfied the college tests in the extra subjects.

Sen, P. N.
Mukerjee, B. G.
Bhattacharya, K. C.
Sen, P. C.
Chatterjee, K. B.
Chowdhury, B. K.
Roy, D. N.

(iii) I do not agree with my staff in the above suggestion. I consider an intermediate examination conducted by the University to be essential, and for several reasons.

Janau, Miss A. L.

(*b*) This might be done, as suggested earlier, by schemes submitted to the University and approved under certain safeguards, as experimental at first, and then, if successful, finally adopted.

(*c*) This might certainly be done in certain sections at both the intermediate and final examinations. For instance, certain subjects examined at the end of the first year of both intermediate and final courses. But no one should be allowed to take the university examination who had not passed in these subjects in a paper set by the college authorities, and a certificate to that effect should be given for each student by the principal. This is done in the Bombay University for certain subjects. It leads sometimes, however, to the abuse of more than one test being given until the student is pulled through somehow. This must be provided against; but a test at the end of the second year for anyone who had failed in the test at the end of the first year might be allowed.

BHADURI, Rai INDU BHUSAN, Bahadur.

(i) Yes; there is validity in the criticism that teaching is unduly subordinated to examination. In the majority of cases the ultimate object of students is to pass the examinations and to obtain degrees. They do not care to study thoroughly the subjects they are required to read, and teachers are also anxious to secure a high percentage of passes. Thus, they (students and teachers) pay more attention to the forms of questions that are set in the examinations, and avoid studying those portions of the text-books whence no questions are expected, than to the thoroughness of study The portions that are marked 'important' are only those from which questions are expected.

BHADURI, JYOTIBHUSHAN, DEY, B. B., and DUTTA, BIDHU BHUSAN.

(i) Under the existing system teaching is somewhat subordinated to examination.

(ii) (*a*) and (*b*). The two schemes are not wholly incompatible as far as teaching is concerned, *vide* my answer to question 5.

BHANDARKAR, D. R.

(i) I do not think that in the existing university system teaching is unduly subordinated to examination.

(ii) (*a*) Yes.

(*b*) This is not desirable for the B.A. As to the M.A. the question does not arise because all the teachers are on the various boards and can adjust the syllabus to the course of lectures they intend delivering.

(c) This might be done in the case of M.A. graduates, who should then be given a diploma saying that they attended a certain course of lectures in a certain subject.

BHANDARKAR, Sir R. G.

My general view about examinations is this:—They are necessary in order to find out whether teachers and students have been idle all the time or doing their proper duties. But, since university degrees are not to be had without an examination, the attention of the student is fully concentrated on the requirements of the examination. The teacher's tendency is also in the same direction and, if he strays a little from the courses laid down by the University, students may feel interested for a time in the new things placed before them, but do not develope that interest or care to remember those new things; *i.e.*, learning, at least, is unduly subordinated to examination, and, in most cases, teaching also. Students even go so far, when an examiner is appointed from the teaching staff of a college, as to make it a point to procure the notes dictated to students by the examiner while lecturing to his pupils in his college and oftentimes the reading of these notes enhances their chances of passing. How to render examinations which are, of course, necessary, not harmful to proper learning and teaching, and how to make the student take an interest in the subject solely taught, and not to confine his attention to the mere acquisition of a knowledge sufficient to enable him to answer the examiner's questions, is a difficult problem. But I will make an attempt to answer it. The teacher himself should be a person of such high qualifications as will, naturally, enable him to inspire respect for himself in the minds of his students. He should so arrange his lectures as to awaken the interest of the students and intermix his lectures with questions to ascertain whether the students have really understood him and do appreciate what is told to them. The harmfulness of an examination is due not only to the examination as an examination, but to the qualifications of the examiner also. His questions should be such as are calculated to test whether the examinee has devoted any thought to the points raised in the book he has learnt and made them his own or appreciates them at their true value. But sufficient care is not bestowed by the syndicate on the appointment of proper examiners and cases are not wanting in which the syndicate reproves an examiner for putting testing questions, especially when there are complaints about them in the newspapers or representations from relations or teachers of examinees. The examiner should be left free to put questions on matters intimately connected with those contained in the book prescribed, though not actually mentioned in the book itself. In other words, the examiner should be required to set questions calculated to test the candidate's general knowledge of the subject treated in the book taken up.

Subject to these general observations my replies are as follows:—

(ii) (*a*) The teaching should be defined, as at present, by prescribed examination requirements.

(*b*) The suggestion should not be accepted except in the case of a teacher of known eminence and interested in the maintenance of his reputation.

(*c*) The teaching alluded to might be given. But, I am afraid that, if not tested by a formal university examination, it will not be cared for by students.

(iii) I think that after the final examination in these subjects the passed candidate should, for one year at least, be required to serve as an apprentice to an eminent practitioner in these professions.

BHATTACHARYA, JOGENDRANATH.

(i) There is some truth in the statement that teaching is to a certain extent subordinated to examination in the existing university system. Pupils at present look upon their school or college life as nothing but a preparation for university examinations. Their horizon is circumscribed as they have no higher aim than to pass examinations. When a certificate is the chief end and aim any subject

that does not lend itself to the test becomes neglected. This oppressive system has also affected the method of instruction. Teachers, on the other hand, are only too careful to teach those things that will be set at the final examination. The number of passes being the goal the spirit of inquiry in the pupil is smothered. Cram lessons and "keys" receive encouragement. The only way to put a stop to this evil system is to give due weight to the written record of the pupils, which will make the tutorial work in the school or in the college more thorough. Boys, at the same time, will be more systematic and regular in their work, and acquire habits of neatness and carefulness. Marks will be assigned to the written work, which will count towards the final pass. Practically, this will be a distinct compulsory subject, in addition to those prescribed for the matriculation or intermediate examinations.

(ii) To lessen the rigidity of tests examination by compartments should be introduced. Students who get plucked in any of the examinations in one subject, will have permission to appear in that subject only, after three months, before the head of the institution, whose certificate will enable them to secure the final pass.

(*a*) Post-graduate teaching should in no way be defined by examination requirements. The professor should *on no account* be the examiner of the subject which he teaches in the M.A. course, as this will limit the area to be gone through. Thus, though teaching may be defined by prescribed examination requirements in the preliminary stage there will be a maximum of freedom in teaching and in study at the post-graduate stage, the test being adjusted to the courses given by teachers in different subjects.

BHATTACHARYA, KRISHNACHANDRA.

(i) Yes.

(ii) To a certain extent the subordination of teaching to examination is a necessary evil in our country. An attempt, however, may be made to minimise the evil. If the matriculation standard could be raised the intermediate examination may be dispensed with and replaced by mere college exercises distributed throughout the year. The University may define certain courses of study for the B.A. degree, leaving a number of extra subjects to be taught by each college according to its choice. A candidate, in that case, can only be admitted to the degree if the head of the college certifies as to his having satisfied the college tests in the extra subjects. An experiment may also be made to arrange courses of popular college lectures in subjects that may interest students without any reference to examination and in which only voluntary prize competitions may be encouraged.

BHATTACHARYYA, BAIKUNTHA NATH.

(i) The criticism is valid; but, under the present condition of our colleges, the examination system must continue up to that for the degree—*vide* my answer to question 2.

(ii) No.

(*a*) In that case degree, diploma or certificate will have to be granted on the recommendation of the teacher. These, I fear, will not carry much weight.

(*b*) The lack of uniformity of standard is a serious objection against this procedure.

(*c*) No student will care to learn such a subject; neither will the public attach any value to the attainment in it.

iii) The formal examination conducted by the University should be the only test for any specific career—*vide* exception noted in my answer to question 2.

BHATTACHARYYA, HARIDAS.

(i) Teaching is *necessarily* (not unduly) subordinated to examination in Bengal for the following reasons:—

(A) The only accepted test of proficiency in a course is the University results. College records and teachers' opinions carry no weight.

(B) The University fixes a course not of study, but of examination, and the questions sometimes set require mechanical reproduction of details more than an intelligent grasp of general principles.

(C) A large number of books are recommended in a particular subject and the teachers, feeling the hardship of poor students, have recourse to note-dictating. *An intensive study should be preferred to an extensive one* so that students may be taken through the books recommended.

(D) The examination system is rigid and mechanical and, the number of questions being usually large and uniform for all, attempts at originality do not pay as they involve more time. But this is a necessary evil as the number of examiners is usually large and individual discretion is likely to be productive of inequality of standard.

This is an inevitable evil of all examining universities.

(ii) (*a*) The present system of examination should continue wherever more than one institution teach the same subject or subjects.

(*b*) Honours and post-graduate teaching should be centralised, and examinations should be adjusted to the courses given by individual teachers. The same plan should be followed where there is only one institution teaching a particular branch of learning, *e.g.*, the Civil Engineering College, Sibpur.

(*c*) In very few subjects is this advisable. Perhaps lectures on physiology may be delivered to psychology students, and yet no questions on purely physiological subjects be set.

(iii) Something should be done to secure a regular supply of good teachers, especially for the schools. There are about 500 schools within the presidency and, according to the requirements of the University, at least 1,000 graduates are engaged in teaching. The number will, however, be found to be much greater as hard competition has driven many M. A's. into the profession of school teaching.

There is at present no organisation to separate the normal from the mentally deficient children and the same education is imparted to all irrespective of mental aptitude and endowment. Teachers have no knowledge of the diversity of mental types. They are mostly ignorant of the modern methods of educational training.

I would, therefore, make the following suggestions:—

(1) That the pecuniary prospects of teachers (especially trained ones) be bettered so that really good men may take to this profession.

(2) That *a select number of colleges be empowered to teach the L. T. and B. T. courses*, practical training being given in the schools attached to such colleges. If a single college finds it difficult to undertake such teaching, colleges should combine to undertake it. The classes, in that case, will be held in the honours college.

(3) That each school be compelled to keep at least two L T's. and one B. T. on the staff within the next ten years and inspectors and sub-inspectors of schools should have a teacher's certificate.

(4) That a central child-welfare institute be established at Calcutta, with branches all over the presidency, to test the physical and mental fitness of school children and advise parents or guardians about the suitable studies or occupations of their wards. Each newly admitted school or college student must procure a permit from the institute to begin a school or college education.

(5) That the David Hare Training College be absorbed by the experimental psychology department, and the new degree of M. T. be instituted. None but M. A.'s

BHATTACHARYYA, HARIDAS—*contd.*—BHATTACHARYYA, Mahamahopadhyaya KALIPRASANNA.—BHOWAL, GOVINDA CHANDRA—BISS, E. E.

and M. Sc.'s should be admitted into the M. T. class, but a third-class M. A. should be allowed to be a professor if he passes the M. T. examination in the first division.

There should be a hierarchy of examinations, then, for the teaching profession. Arrangements should be made to impart L. T. teaching at such hours that B. A. and B. Sc. students may attend the lectures and B. T. teaching at such hours that M. A. and M. Sc. students may attend. The M. T. course should be a one-year course and concurrent with the third-year law course.

BHATTACHARYYA, Mahamahopadhyaya KALIPRASANNA.

(i) I think there is some truth in the criticism that in the existing university system teaching is subordinated to university examination.

BHOWAL, GOVINDA CHANDRA.

(i) It cannot be answered wholly in the affirmative or in the negative.
Examination is intended to test sound and thorough knowledge and the object of teaching should also be to impart the same. Those that are against examinations are for allowing students and teachers liberty to do nothing. The end and aim of examinations should be to test the soundness of the knowledge of candidates in the subjects of examination.

(ii) The use made of examinations might be varied to meet the needs of different subjects of study and of different groups of students.

(*a*) Yes.
(*b*) Examinations should never be adjusted to the courses given by individual teachers.
(*c*) Test by a formal university examination should, on no account, be dispensed with.

(iii) For the legal, medical, and engineering professions the existing examination tests are sufficient.

For agriculture, commerce, and industry three years' special course in each subject after matriculation is requisite.
For the medical service, the existing test is sufficient.
For the executive service the B.A. or B.Sc. test should be sufficient.
For efficiency of administration the judicial and executive services should be recruited from the Bar.

BISS, E. E.

(iii) I consider that the courses laid down for the B. T. degree and the L. T. diploma are in need of sweeping revision. If, for instance, the Commission will examine the work prescribed in the 'History of Education' they will find that it involves a knowledge of the civilisations of the East and West for all past times, for the 'History of Education' is, of necessity, the history of the minima of efficiency (using the term in its broadest sense) that have been required by various social groups from their young, and the way in which the adult portions of those communities have set about securing their ends. The result of a curriculum of the kind laid down in this and the other subjects is a very regrettable superficiality in the work, and a great difficulty in securing a departure from the methods of study in vogue for other examinations. Again, the examination of candidates in the practical work of teaching is exceedingly difficult, and I consider that the responsibility for the classification of teachers in training should be thrown upon the college authorities, who alone can form sound views as to

the value of a student's work. The standards of these colleges could be harmonised by mutual visitation among the principals, and their consultation with some third party appointed for the purpose. The form of examination in which a student merely gives one of three prepared lessons before examiners can, at most, test the class-room technique of the candidate, and can afford no adequate evidence of the more important qualities which go to the making of the real teacher. I have submitted a separate note on the training of teachers.

BISVAS, Rai DINANATH, Bahadur.

(i) I think there is much force in the criticism that in the existing university system teaching is unduly subordinated to examination. Students care more for passing the examinations and teachers, as a rule, coach them, and not teach. Students do not care to study the courses prescribed by the University, but depend upon the notes given by their teachers, which only help cramming.

(ii) There should be an attempt to reduce the rigidity of the examination system. I consider that the use made of the examination might be varied to meet the needs of the different subjects of study and of the different groups of students. Particular subjects, or sections of subjects, might be taught; but, though teaching might be given, there might be no test by a formal university examination. I mean some subjects may be taught for general culture and the proficiency of students in those subjects may be tested by the results of weekly, monthly or first half-yearly exercises in the case of matriculation students and, in the case of university students by the results of the annual examinations of the first-year class and of the half-yearly examination of the second-year class. Students of the matriculation class should not be allowed to appear at the matriculation examination and students of the second-year class should not be allowed to appear at the intermediate examination unless they have satisfactory marks in the said exercises and examinations. Subjects for general culture should not be studied after the half-yearly examinations of the matriculation and second-year classes.

BISWAS, CHARU CHANDRA.

(i) There is much force in the criticism that in the present system teaching is unduly subordinated to examination.

(ii) An attempt should certainly be made to reduce the rigidity of the examination system, and it would be worth while to try all the alternative methods suggested.

(*a*) and (*b*) In the case of the higher examinations, from the honours degree upwards, alternative may be followed, while, in the case of the lower examinations, it is feared that the teaching will have, to a large extent, to be defined by prescribed examination requirements.

(*c*) In science subjects, however, whether for the lower or the higher examinations, a formal university test may be dispensed with, and in lieu thereof the record of practical work done by the student in the class and the reports of his teachers may be accepted.

BISWAS, SARATLAL.

(i) Yes.

(ii) The rigidity of the examination system should not be reduced, but the system should be so modified (as suggested in my answer to question 10) that the real efficiency of a candidate in a subject may be tested. Such a system would prevent the undue subordination of teaching and learning to examination.

BOMPAS, The Hon'ble Mr. C. H.—BOROOAH, JNANADABHIRAM—BOSE, B. C.—BOSE, Rai CHUNILAL, Bahadur—BOSE, G. C.

BOMPAS, The Hon'ble Mr. C. H.

(i) There is no doubt that at present teaching is unduly subordinated to examination. Looking at the characteristics of the people I see no way to remedy this except by restricting a university career to those to whom the result of an examination is not all important.

BOROOAH, JNANADABHIRAM.

With regard to this question I shall only say that an examination with regard to administration in the public service will be of great advantage. Equitation is one of the tests for an appointment in the executive service; I would add natation also.

BOSE, B. C.

(i) The charge that teaching is now unduly subordinated to examination appears pretty correct. Yet, evidently it is due not to any instrinsic defect in the system itself, but to the way in which it is usually worked. For instance, some of the questions set at a university examination are often such as to be beyond the capacity of candidates; hence, they have to get up a mass of unassimilated verbiage to be able to 'pass'; and many teachers are tempted to encourage their pupils to be more attentive to the peculiar tactics helpful for getting through, than to such a natural and liberal study of the subject itself as would be prompted by a genuine interest in it. If the questions be so framed that they can be well answered by one who has a thorough grasp of his subject up to the prescribed standard, but who has no care for any artificial dodges, and cannot be answered without the former in spite of the latter, the tendency of boys and masters to neglect proper education for unintelligent cramming will be automatically set right. And, it should be noted, *such a change in the method of working is quite consistent with the principles of "the existing university system"* and, hence, can be well introduced without much alteration in the system itself.

(ii) In the present state of education and other circumstances in the country no relaxation of the existing examination system seems desirable.

(*b*) and (*c*) I feel strongly against these proposals as they are likely to introduce too much of confusion, disparity, and possible unfairness, in teaching the students, as well as in judging their comparative merits.

BOSE, Rai CHUNILAL, Bahadur.

(i) Yes.

(ii) There is great room for relaxation of the rigidity of the examination system. Examinations should be fewer and far between. For instance, for qualifying for the M.A. or M.Sc. degree, there should be, in my opinion, one examination only between the matriculation and the M.A. or M.Sc., *viz.*, the B.A. or B.Sc.

(*a*) and (*c*) They are desirable and practicable.

(*b*) Is not practicable.

BOSE, G. C.

(i) This part has already been answered in connection with question 1.

(ii) An attempt should be made to reduce the rigidity of the examination system. For instance, the responsibility of judging whether the students have fulfilled the

conditions of study for the intermediate stage and are competent to take up the study for the graduate stage may be given to colleges under proper safeguards At the graduate stage there should be a university examination under more elastic conditions than at present. In the intermediate stage, in some subjects such as drawing, hygiene, etc., teaching might be given, but there need be no test by a formal university examination. In secondary schools an attempt should be made to institute a system of all-round preliminary education, replacing the existing system of coaching with a sole eye to passing the matriculation examination. The final examination of the secondary school stage may then be accepted as qualifying a candidate for taking up the University courses or courses which may be specially designed for the professions.

(iii) Provision should exist in the University for the study, examination, and granting of degrees in medicine, law, engineering, teaching, agriculture, commerce, and industry, but these degrees need not be the only passports for these professions or for admission into the public service.

BOSE, HARAKANTA.

(i) Yes; to a great extent; so long as the progress of students and the work of teachers are to be judged by the results of the university examination it must be so. There is no unmixed good in this world, and human institutions must be more or less imperfect; in the absence of any better system for the purpose of ascertaining the merits of students we must make the best of the present arrangements.

(ii) Yes.

(*a*) Yes.

(*b*) The teacher should have freedom in his teaching; but the examination should be adjusted to the requirements of the University so that there might be a uniform standard; to safeguard, however, the interests of students their work at school, as tested from time to time by the headmaster and the inspector of schools, should be taken into consideration along with the results of the formal University examination; so that the failure of any student to appear at, or pass, the examination in a particular subject at the University may not necessarily debar him from gaining the pass certificate.

(*c*) In reading, writing, conversation, and dictation in English and the vernacular, practical work in mathematics and science, in drawing and music, some sort of test may be held at schools; the report of periodical examinations on these subjects, held by the headmaster and the inspector jointly, should be considered by the University.

(iii) The University can test only the intellectual attainments of the candidate, and not his technical skill in, and physical and moral fitness for, the specific career he wants to adopt. For admission into this there should be a departmental test over and above the University examination.

BOSE, J. M.

(i) No system of university education can give students of ability any opportunity of obtaining the highest training so long as the system of teaching is subordinated to a defective system of examination, which demands only a knowledge of a sharply defined syllabus, and which does not in any way take into account the work done, or the knowledge gained, by a student during the whole period of his study, except in so far as he can express it within the short time allotted to him in the examination-hall only once a year.

BOSE, J. M.—*contd.*

It may be argued here that this evil can only be eliminated either by having more frequent examinations, or by abolishing examinations altogether, and relying only upon the report of the teacher as to the ability and progress of the student. But the latter would not be found practicable even in a small homogeneous country like the United Kingdom and in Bengal considerable difficulty would be experienced in maintaining an uniformity of standard. The average student of the Calcutta University makes no attempt whatever to take an intelligent interest in his subject, except as much as is necessary to pass the examination and, whenever a teacher asks a student to read a particular book, he is at once asked if that book is 'recommended' by the University. It has been the invariable experience of most of us who are engaged in teaching scientific subjects that, whenever any attempt is made to illustrate the lectures by bringing in any subject of modern interest (such as aeroplane stability or wireless telegraphy), the teacher is immediately asked if that subject is included in the syllabus of the University. In short, the average student of the Calcutta University concentrates his whole mind and energy on one object only, namely, memorising thoroughly what he considers the most likely questions to be asked at the next university examination. It follows, therefore, that the criticism that teaching is unduly subordinated to examination is entirely valid.

(ii) There is a regulation in the Calcutta University that no person engaged in teaching any subject will be appointed a paper setter in that subject. The object of the regulation is, no doubt, to prevent giving an undue advantage to those students who had the privilege of attending the lectures of the paper setter. The result is that the syndicate appoints paper setters who are not in touch with the capabilities of the present generation of students. In setting a paper these external examiners are entirely guided by the questions which were set in previous years. Thus, the standard of the examination does not change and, as a matter of fact, it is quite easy for a student to guess what the questions would be next year simply by looking over the questions of previous years. This is exactly the course followed by the authors of "model questions", and that is why these cheap publications are so popular with the students. Teachers are thus considerably handicapped, and do not know how to introduce some freshness into their lectures to suit a system of examination the nature of which remains the same every year.

While I say this I do not by any means suggest that external examiners should not be appointed. On the contrary, the appointment of such an examiner is extremely necessary to encourage students to acquire as wide a knowledge as possible of the subject, and also to take some interest in those portions of the subject which were not covered by the lectures. But, in setting a paper, the co-operation of all, or at least some, of the teachers should be invited. In fact, our best plan would be to follow the method adopted in some of the modern British universities and divide a paper into two groups, say A and B, respectively set by the external examiner and the teacher. Thus, in Bengal, each college would have its own group B, while group A will be common to all the colleges. It is a notorious fact that the majority of students here attaches very little importance to lectures, because he knows that his lecturer has no hand in the setting of the paper. There is, thus, a strong tendency among our students to read 'notes', 'guides', and 'model questions', which can be purchased for a few annas. If the above suggestions be accepted I have no doubt that, gradually, students will learn to appreciate the value of collegiate and university teaching.

(*a*) So far as the ordinary pure arts and science courses are concerned teaching should not be rigorously regulated by prescribed examination requirements, and the student should be encouraged to acquire as wide a knowledge as possible.

(*b*) The teacher should certainly be given *some* degree of freedom, and the examination should be *partly* adjusted to the courses given by individual teachers (*e.g.*, the teacher should be an *ex-officio* paper-setter along with an external examiner)

BOSE, J. M.—*contd.*—BOSE, KHUDI RAM—BOSE, Miss MRINALINI.

(*c*) As the average student has not yet learnt the advantages of university education the retention of an examination in some form is necessary to compel a student to undergo a course of training in any subject.

BOSE, KHUDI RAM.

(i) Subordination of teaching to suitable tests or examinations (such as we have at our University here) has impressed me as a disciplinary provision of high educational value. But what has struck me as most deleterious to the cause of sound and thorough-going education in this connection, has been the most general complaint that the subjects of study are not adequately handled in our colleges, especially in the interests of those students who happen to have been unsuccessful at a previous examination of a similar standard at the University. Our unsuccessful I.A., I.Sc, B.A., and B.Sc. students resuming their attendances at lectures in a college in July, and completing them, to all intents and purposes, in December, *i.e.*, for a period of *barely four months and a half* (pretty long vacations intervening) are appallingly handicapped in their studies in English, philosophy, and logic in facing their next ordeal at the University. With this sort of imperfect equipment it is but inevitable that they should find their unfortunate academic history repeating itself from year to year in a large majority of instances. A remedy to this great evil would seem to lie in prolonging the college session (to be enforced by the University authorities) by accepting the candidates' applications, for permission to appear at these examinations only a *fortnight before their commencement*, as also by the colleges dispensing with their so-called annual test examinations. With the rich resources of this our premier University in the East this bit of reform does not altogether appear to be infeasible.

(ii) The rigidity of the present examination system may very advantageously be relaxed by providing that unsuccessful candidates at an examination are to be re-examined at the close of the next college session only in the subject or subjects of study in which there happened to be many failures.

(*c*) There ought to be a test in every case by a formal university examination in the interests of sound education and discipline.

Lastly, the salutary safeguard adopted by the University for a series of years as to discountenancing the scheme of teachers or professors examining the answer books of their own pupils or setting papers in this connection ought to be extended still farther by ruling that no examiner should examine any of the candidates sent up by the college with the staff of which he might happen to be associated for the time being. Nor is it at all in keeping with the fitness of things that a university examiner in a subject should have vested in him a regulative control of the examination in a subject in which a text-book composed by him is prescribed as an alternative book in that subject of study for the purposes of that examination.

BOSE, Miss MRINALINI.

(i) I think there is some truth in the criticism, but I do not think it is entirely so. Teaching can be greatly improved by appointing better qualified teachers, especially in the secondary schools. Owing to the small remuneration paid to teachers, the department cannot attract the best men. The pay of teachers and officers of the department should be raised so as to make it more attractive to the better class of men.

(ii) See my answer to question 8.

(*a*) Yes.

(*b*) I do not think this system would work satisfactorily.

BROWN, Rev. A. E.—CHAKRAVARTI, BRAJALAL—CHAKRAVARTI, CHINTAHARAN.

BROWN, Rev. A. E.

(i) There is no doubt that, at present, teaching is entirely subordinated to examination.

(ii) In our opinion, one of the chief defects in the present system is in the character of the questions set. We consider that these should be so altered as to be a real test of a student's mastery of the subject and his power to think for himself.

We believe that this change would do much to discourage "cramming" and create a real need for teaching. At the same time, we recognise that, so long as students are required to answer questions in English, examiners will hesitate to set questions of such a nature as indicated above. Examiners know quite well the extreme difficulty which the majority of students experiences in trying to express any original thoughts in English.

CHAKRAVARTI, BRAJALAL.

In the present circumstances of the country some examinations, ensuring the uniformity of the standard of education, are indispensable. These examinations have their dark side as well, as they involve much loss of time and energy

(i) Wherever there is an examination to be conducted on a large scale teaching has necessarily to be subordinated to that. The evil does not stop there since we find that methods of coaching are sometimes resorted to to secure a pass, and teaching comes practically to be dispensed with.

(ii) The system we have got is sufficiently complicated and I would not like the creation of further complications by the introduction of still finer variations So far as there is to be one common examination for the students of a number of colleges the existing system is the only practicable one I do not understand how the test of examination may be made to vary with the work of individual teachers. Option may be given to colleges to teach subjects not covered by the curriculum of the University, but that cannot be had in regard to subjects in which a common standard of proficiency may be required For the post-graduate standard the rigidity of examinations may be relaxed to some extent as, in that case teachers themselves would happen to confer the degrees. For the graduate standard it is not possible to reduce the rigidity of the system of examination, but the number of the subjects and the stiffness of the standard may be reduced Practical examination in science subjects may be dispensed with. The intermediate examination may be abolished, leaving the work to the colleges themselves in the shape of class examinations.

(iii) Examinations certainly are no test of ultimate success in any practical career. What is really needed for such a purpose is a practical training in those different branches, with proper arrangements and under expert guidance. The amount of general education, preliminary to those special studies may be provided by the University and the rest of the work left to other institutions, to be conducted by experts in those subjects.

CHAKRAVARTI, CHINTAHARAN.

(i) There is some truth in the remark that in the existing university system teaching is unduly subordinated to examination. Students are more anxious about passing examinations, than for acquiring knowledge. There are very few students who read to know and love to learn. Most of them are satisfied if they can get through their examinations.

(ii) An attempt should be made to reduce the rigidity of the examination system.

(a) and (c) The use made of examinations might be varied to meet the needs of different subjects of study and of different groups of students by means of defining the teaching for certain purposes by prescribed examination requirements and, though teaching might be given in some subjects, there might be no formal examination.

CHAKRAVARTI, CHINTA HARAN—CHAKRAVARTI, RAI MON MOHAN, Bahadur.

CHAKRAVARTI, CHINTA HARAN.

(i) Under the existing system teaching is unduly subordinated to examination. Teachers and guardians are more anxious for the success of the student in the examination than for the development of his body, mind, and character. There is a lamentable lack of higher ideals of culture for its own sake.

(ii) The rigidity of the examination system should be reduced to its minimum especially for professional subjects of study.

(iii) The possession of a diploma or degree is not an infallible test of fitness for a specific career, *e.g.*, teaching. The present method of holding the practical examination of the L. T. and B. T. candidates to test their fitness for teaching is defective for the following reasons:—

(A) The external examiner appointed by the University has not got sufficient time to test thoroughly the skill in the teaching of individual candidates by judging their three lessons in the manner required by the regulations of the University. He can form but a superficial estimate of a candidate's teaching skill from his extremely short acquaintance with the candidate's practical work.

(B) The principal of the training college as an internal examiner has now only a divided responsibility in adjudging passes in the practical test. He cannot, therefore, conduct the practical examination of his students in the same responsible manner as he would have done had he been the sole judge in the matter. As he knows most intimately the candidates' skill and qualifications in practical teaching through their work under his supervision during their period of training his opinion should be final in the matter.

CHAKRAVARTI, Rai MON MOHAN, Bahadur.

(i) At present teaching appears to be unduly subordinated to examination.

(ii) The relaxation of the examination rules depends largely upon the view taken of the teachers. In the English public schools, the principal is thoroughly relied upon as a rule, and any examination under his supervision is beyond cavil. In Bengal headmasters of matriculation schools, Government or otherwise, have not yet attained that trustworthy status. In consequence, the final school examination, if established, will be looked at with distrust. Similarly, in the next higher examination, the intermediate, though to a less extent.

(*b*) I think the experiment might begin with the M.A. and M.Sc.; and, if approved by public opinion, may be extended to the B.A. and B.Sc. As the teacher will examine only his own classes no question of partiality can arise; and, in the long run, with the result of weekly or monthly examinations to guide him, the teacher will be better able to test the progress of his scholars than the University can ever hope to do by a single examination.

(iii) As a deputy collector I am interested in the administration in the public service. The University examinations are often accepted as a test of fitness; but, practically, they are not.

In the admission to the executive service the applicant is required to be a graduate. In practice, a good knowledge of English, a fair knowledge of revenue and criminal law, some knowledge of accounts, history, and economics would be useful. No university examination can supply all these.

In the judicial service the B L. is necessary. But it is not considered sufficient, and a practice at the Bar for some years is required. The time spent on jurisprudence and Roman law is of little value to the munsif, to whom some knowledge of accounts and good English composition would be more useful in service.

In the higher accounts offices an M.A. or M.Sc. is preferred. But all have to submit to a special examination.

CHAKRAVARTI, Rai MON MOHAN, Bahadur—*contd.*—CHANDA, The Hon'ble Mr. KAMINI KUMAR—CHATTERJEE, The Hon'ble Mr. A. C.—CHATTERJEE, Rai LALITMOHAN, Bahadur.

In the public works and medical services the university examinations (B.E. and M.B.) are accepted. But a good deal of the knowledge acquired comes to no use, and the time spent thereon becomes of little value. In the higher grade of the police service the matriculation is considered sufficient, though some value is given to the B.L.

There are no Inns of Court here; and the passing of the B L. examination is accepetd for admission to the Bar. In recent years the annual output of B.L. has increased, causing a congestion at the Bar. The junior members are finding a living more and more difficult and the prestige of the Bar is becoming affected. In consideration of the general congestion the University may do something as follows :—

(A) It may abolish the examination for years, as the Punjab University did. This will, however, be a hardship on students otherwise eligible in those years.

(B) It may make the examination competitive, the first fifty or hundred being declared fit.

(C) It may raise the standard of passing or abolish the second division. In the final examination a paper may be usefully added asking the examinee to write a brief essay on some legal topic.

CHANDA, The Hon'ble Mr. KAMINI KUMAR.

(i) Yes; I have already referred to it in my answer to question I.

(ii) Speaking as a layman I am in favour of the suggestions.

(iii) There should be tests in practical training in addition to the examinations.

CHATTERJEE, The Hon'ble Mr. A. C.

(i) Yes.

(ii) (*a*) Yes.

(*b*) Not unless the teachers themselves are of a considerably superior standard.

(*c*) Yes; this is possible and desirable in some subjects and also in the highest courses of study.

(iii) Written examinations in such cases should always be supplemented by practical tests

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CHATTERJEE, Rai LALITMOHAN, Bahadur.

(i) There is no doubt that in the Calcutta University teaching is unduly subordinated to examination. The pity of it is that this is true even of the highest examinations of the University. To a great extent this is remediable by supplementing the external examination by an internal one and attaching importance to the class work of students. In the colleges within the University area the valuation of college work may be constantly checked by the best teachers of the University to ensure uniformity and efficiency. At the honours and M.A. stages the external examination should be much relaxed. Of course, the success of any such scheme will depend almost entirely on the possibility of getting efficient and reliable teachers. They are not available in sufficient numbers at present.

(ii) (*a*), (*b*), and (*c*) Certainly the rigidity of the examination system should be reduced and the use made of examinations may be varied in the ways suggested, but the freedom proposed to be given to teachers must again depend upon the possibility of getting the right sort of teachers.

It must be remembered that whatever the method of the examination may be its reliability as a test must depend upon the way in which the method is applied by the examiners.

CHATTERJEE, Rai LALITMOHAN, Bahadur—*contd.*—CHATTERJEE, P. K.—CHATTERJEE, RAMANANDA—CHATTERJEE, Rai Bahadur SARAT CHANDRA.

(iii) For the professions of medicine, law, teaching, and engineering, examinations, if they are both internal and external, ought to serve as a test of fitness, and these examinations should be conducted by the University. Scientific agriculture in its practical aspect is as yet untried in India on any large scale. In respect of commerce and industry, in the aspect of management, university examinations would do little good and the University could give little guidance. At the present stage facilities for research should be afforded by Government. For administration in the public service special examinations should be instituted to test fitness. University degrees should not be a necessary qualification, but should entitle candidates to be exempted from particular portions of the special examination. Open competition should be the only means of recruiting for the public services.

CHATTERJEE, P. K.

(i) It is a fact that teaching is too much subordinated to examination. Since the University recognises the passing of an examination as the only test of the ability of students what the latter require from their teachers is a coaching to enable them to pass their examinations well.

(ii) (*a*) Yes; at present, it is desirable that teaching should be defined by prescribed examination requirements.

(*b*) The number of students joining the University is large, and the number of teachers is correspondingly large. Hence, it would be very difficult to adjust examinations to the courses given by individual teachers as no uniformity of standard could be attained in this way, the teaching of different teachers being likely to vary widely.

Under the circumstances, freedom of teaching, consistent with the system of general examinations, can be secured in part by a large number of alternative questions in the examinations.

CHATTERJEE, RAMANANDA.

(i) There is.

(ii) Yes; an attempt should be made to reduce the rigidity of the examination system.

(*a*) Yes.

(*b*) The teacher should certainly be left with a maximum of freedom. It would be the ideal thing to adjust examinations to the courses given by individual teachers of *recognised standing*; but it would be practicable to do so only in a university of a moderate size, not in one like the present Calcutta University.

Nevertheless, the suggestion may be carried out in the case of courses given by a few of our most distinguished post-graduate professors.

(*c*) Yes.

(iii) In the professions of medicine, law, teaching, and engineering, and in agriculture, commerce, and industry, examinations may serve as a test for a specific career. In the judicial branch of the public service the examinations in law may serve the same purpose as at present. In the executive and other branches separate *competitive* examinations would be desirable.

CHATTERJEE, Rai Bahadur SARAT CHANDRA.

(i) Yes.

(ii) (*a*) Yes.

(*b*) No; not till the teachers are such as to be allowed freedom in adjusting the studies.

(*c*) Except for highly technical subjects.

CHATTERJEE, Rai Bahadur SARAT CHANDRA—*contd.*—CHATTERJEE, SATIS CHANDRA—CHATTERJEE, SUNITI KUMAR—CHATTERJI, MOHINI MOHAN—CHAUDHURI, The Hon'ble Justice Sir ASUTOSH.

(iii) As regards law students should be asked to attend law courts and report cases so as to enable their teachers to find out if the student has understood the principle and applications of law.

CHATTERJEE, SATIS CHANDRA.

(i) The criticism that in the existing university system teaching is unduly subordinated to examination is partly valid. Here, as also at other centres of learning, we hear the same complaint.

(ii) It is, however, very difficult to suggest an effective remedy for this undesirable state of the examination system. To reduce the rigidity of that system will not, I think, serve the present purpose to our entire satisfaction.

(*a*) For many good reasons it seems desirable to adopt the measure that the teaching should be defined by prescribed examination requirements. These requirements, however, should be so prescribed as to encourage an intelligent and comprehensive understanding of the subjects of study, and never the habit of cramming or learning by rote.

(*b*) Cannot be successfully adopted at any stage below post-graduate teaching.

(*c*) It does not appear feasible.

(iii) A test of fitness for a specific career should combine a theoretical test, in the shape of university examinations, with a practical test of the actual abilities of a person.

CHATTERJEE, SUNITI KUMAR.

(i) Teaching should never be subordinated to examination, 'duly' or 'unduly.' Teachers here, however, have got to prepare students for examinations. In England tutors and coaches do that work, but Indian universities can hardly afford a double system of teaching and tutoring.

(ii) (*a*) Prescribed syllabuses determining examination requirements should remain

(*b*) This is possible only in the case of centralised post-graduate studies only. There should be one standard of examination for groups of students under different professors in the various colleges.

(*c*) A formal examination is essentially necessary for the present to ensure a thorough study of the subject. This examination may be made additional and optional.

(iii) Examinations provide a test for the minimum qualifications required for a specific career and, as such, should remain.

CHATTERJI, MOHINI MOHAN.

(i) Yes; the most convincing evidence being the existence of schools and colleges as commercial ventures.

(ii) Not necessary.

(iii) Confining the answer to the profession of law I would suggest that no degree in law should be given wholly dissociated from history and the mental and moral sciences.

CHAUDHURI, The Hon'ble Justice Sir ASUTOSH.

(i) In my judgment, the existing university system is unduly subordinated to examination. Teaching has become mere coaching to a very large extent. Notes of lectures and frequent exercises are given to prepare students for their examinations.

CHAUDHURI, The Hon'ble Justice Sir ASUTOSH —*contd.*—CHAUDHURI, BHUBAN MOHAN—CHAUDHURI, The Hon'ble Babu KISHORI MOHAN.

(ii) I am not in favour of abolishing a formal university examination, nor do I favour the adjustment of examinations to the course given by individual teachers.

(iii) So far as law examinations are concerned there is a just complaint that there are too many of them. I do not think that a university law degree should at once qualify students to practise in our law courts. Greater attention should be paid to the study of the scientific portion.

CHAUDHURI, BHUBAN MOHAN.

(i) There is no doubt that teaching is, in most cases, subordinated to examination, but this is not due simply to the system of examination. The system of examination only points out the standard of knowledge to be reached by boys at a certain stage, so it cannot be condemned if short-cuts, and not the best methods, be resorted to for reaching the standard. The examination system should remain as it is; to try to cure the defects attributable to it will be to create fresh ones of a greater magnitude.

(iii) Examinations may, to a great extent, serve as a test of fitness for a specific career. Qualifications for such a career are partly acquired by study, and partly drawn from experience; examinations are the only ways of testing the mental equipment necessary for entering upon such a career.

CHAUDHURI, The Hon'ble Babu KISHORI MOHAN.

(i) There is no doubt that under the existing system teaching is unduly subordinated to the needs of examination.

(ii) It is only in the highest classes, *viz.*, those in which students are carrying on independent researches, that the examinations may be dispensed with Otherwise, for admission into the University, as well as for its degrees, I do not see how there can be any teaching without an examination to test the progress made by students. The only thing that can be done is to see that examinations are so conducted as to be a proper test, as far as possible, of the attainments of students.

(iii) If, as suggested in my answer to question 7, each technical college is allowed to have an independent status, there would scarcely be any necessity for separate university examinations on these subjects. It would be quite easy for the college authorities to grant certificates to deserving students in consideration of the character of the work done by them during their college career, both of theoretical and practical training and apprenticeship. For a career in the public service I would insist upon a special examination after obtaining degrees, followed by a probationary appointment on the result, till the departmental examinations are passed.

As regards medicine, law, and teachership I would insist upon a period of apprenticeship, as should be done in the branches of technical education.

Law study should not be allowed simultaneously with the study for the M. A. degree, at least in the second year. The law examination may be restricted to one year, followed by apprenticeship for one year under the guidance and supervision of a practising lawyer of some standing. If the competitive test for public service be introduced the demoralising tendency for securing by any means an M. A. degree for success in nomination and weighty recommendations would be much minimised.

CHAUDHURY, The Hon'ble Babu BROJENDRA KISHORE ROY—COLEMAN, Dr. LESLIE C.—COWLEY, The Hon'ble Mr. F. A. A.—CROHAN, Rev. Father F.—CULLIS, Dr. C. E.

CHAUDHURY, The Hon'ble Babu BROJENDRA KISHORE ROY.

(i) Yes; the criticism is made on wholly valid grounds.

(ii) The rigidity of examinations ought to be reduced by all means. Certain subjects of study might, without any harm to students or to the cause of thorough high education, be exempted from examination.

The rigidity of the examination system might be greatly reduced by making it a rule that the result of the final university examination will be determined by taking the result of class exercises or results of monthly and annual examinations in different colleges into account under proper safeguards. A number of inspectors and examiners might be employed to watch that the same standard of efficiency is maintained in putting questions in class examinations and in testing the results of such examinations.

(iii) Students ought to be allowed, after passing their matriculation examination, to select their special studies either in medicine, law, engineering, agriculture, commerce, and industry. But for the profession of teaching no limit to the standard could be fixed.

COLEMAN, Dr. LESLIE C.

(i) I think this is so generally in India.

(ii) (*a*). (*b*), (*c*) Examinations cannot, I think, be abolished, but I would make much more use of the *viva voce* and of practical examinations in science subjects than is now being done.

(iii) Agriculture.—If, as should be the case, the candidate were required to produce a certificate from a duly qualified person that he had worked satisfactorily for two years on a Government or private farm an examination largely *viva voce* and practical should be a satisfactory test.

COWLEY, The Hon'ble Mr. F. A. A.

(iii) As already indicated I am of opinion that for a specific career in engineering should the candidate prove himself to be deriving no benefit from his training, as exhibited in the results of his examinations, he should be required to leave the College of Engineering.

CROHAN, Rev. Father F.

(i) It is quite true that in the existing university system teaching is unduly subordinated to examination. Students are not willing to give their attention at lectures to any remarks or explanations except such as bear on the questions likely to be put at the examination. It is a waste of time and energy to attempt to insist upon anything else.

(ii) (*b*) We do not think that much personal freedom, under ordinary existing circumstances, in the shaping of the curriculum or holding the examination will further the development of studies in Bengal. The reason is patent to any one acquainted with the status of most of the colleges in Bengal.

CULLIS, Dr. C. E.

(i) If teaching means only training of the faculties and guidance in the acquisition of knowledge it can be said that teaching is often unduly subordinated to

CULLIS, Dr. C. E.—*contd.*—CUNNINGHAM, The Hon'ble Mr. J. R.—DAS, Rai BHUPATINATH, Bahadur.

examination. The remedy must lie in the character of the examination and a sufficient supply of good teachers who are able to take a real interest in their subjects. For training only less extensive schemes of study are appropriate.

If teaching includes, as in general it must, the imparting of knowledge irrespectively of the methods used, then the degree to which it must be subordinate to examination is very variable, depending on the object to be attained, and on the nature, extent, and degree of development of the subject taught. In this case it can only be said that a good teacher who has sufficient leisure will always pay as much attention as is possible to training the faculties of his students.

(ii) A relaxation of the examination system hardly seems to be feasible where it is required to classify a large number of students. The classification arrived at by examination is, in general, correct; a good first class man is better than a second-class man; a man who specially distinguishes himself has exceptional ability, and so on. It becomes sufficiently precise in an individual case when it is supplemented by personal knowledge and personal observation.

CUNNINGHAM, The Hon'ble Mr. J. R.

(i) I am inclined to think that teaching is at present unduly subordinated to examination, but regard this in large part as unavoidable in the earlier stages of university training in this part of India. Arrangements have to be made to secure that a reasonable standard is attained to. This can only be tested by examination. The large numbers under the charge of a single teacher, the imperfect qualifications and training of the teachers, the pressure of public opinion and private sentiment which tend to force the lowering of standards—all these considerations move against the replacement of the present system by a system which would allow each college to be in significant measure a law unto itself; the want of an adequate body of men whose services were at the disposal of the University for local work in outside colleges would render of doubtful value any *general* attempt to combine the advantages of an external, and of an internal, system except, of course, in post graduate work where this would be easily possible.

I should not dream of saying that the present rigidity of the examination system could not be usefully reduced in the intermediate and degree classes, but cannot myself suggest how this is to be done. Any reform must, of course, be adjusted to its instruments.

(iii) I do not consider that examinations, by which I understand university examinations, can serve in useful measure as a test of fitness for a specific career in commerce or industry. The conditions necessary to success would elude the test.

DAS, Rai BHUPATINATH, Bahadur.

(i) I do not think teaching is *unduly* subordinated to examination; of course, a teacher has to keep the requirements of the examinations in view; but it is open to him to modify his teaching within certain limits. But what I fear is that students themselves make their preparations unduly subordinated to examinations. The use of note-books, analyses, etc., in English, history, philosophy, intermediate chemistry and in other subjects also, in place of text-books is sapping the very foundation of healthy methods of study. Instead of supplementing the text-books recommended by reading other works many try to supplant them by note-books which give, in substance, the same information in a condensed form, often in the shape of questions and answers. Students seem to be terrified at the size of some of the books and are deluded by the smaller size of these note-books. They spend a lot of time in committing to memory these "note-books" without realising that the process imposes a heavy tax upon the

DAS, Rai BHUPATINATH, Bahadur—*contd.*—DAS, BHUSAN CHANDRA, and RAY, BAIKUNTHA CHANDRA—DAS, Dr. KEDARNATH—DAS, SARADAPRASANNA—DAS GUPTA, KARUNA KANTA.

memory. I think teachers should make a united effort to stamp this practice out and to divert the energy of students to better methods of preparation for examinations.

(ii) (*b*) It is not practicable to adjust examinations to the course given by individual teachers. Kindly see, in this connection, my answer to question 2.

(*c*) Without a formal university examination teaching will not be effective. The majority of students who take up chemistry as a part of the arts course take hardly any interest in the practical portion of the work. It is quite a business to make these students write out a record of their experiments and submit their note-books regularly. Various ways, involving much loss of time, have to be devised to make them do this part of their work.

DAS, BHUSAN CHANDRA, and RAY, BAIKUNTHA CHANDRA.

(i) Yes; in the existing university system teaching is unduly subordinated to examination.

(ii) (*a*) The teaching might, for certain purposes, be defined as at present by prescribed examination requirements.

(*c*) In some particular subjects, or sections of a subject, prescribed by the University, teaching might be given in a college and the teacher may hold an examination, written or oral, to test the knowledge of his students in those subjects, or sections of a subject, and certificates of proficiency may be granted on the results thereof. In that case, there might not be any further test by a formal university examination.

DAS, Dr. KEDARNATH.

(i) I do not think that the teaching in medical colleges is unduly subordinated to examination.

(ii) In the medical curricula the scope of the subjects is fairly widely stated and the teacher is left with a maximum of freedom. There being two examiners in each subject, the teacher himself and an outsider, the examination is, to a certain extent, modified by teaching, one examiner acting as a check on the other. Moreover, the examinations being divided into written, oral, and practical, the theoretical knowledge, ability to think, and technical skill of the candidate are thoroughly tested. I think the present system of examination is quite satisfactory and serves a very useful purpose.

DAS, SARADAPRASANNA.

(i) Teaching is subordinated, to some extent, to examination.

(ii) The rigidity of the examination system should be relaxed by omitting to lay down a *detailed* syllabus and, at the same time, setting more numerous alternative questions than at present.

DAS GUPTA, KARUNA KANTA.

(i) There is much truth in the criticism that teaching at present is unduly subordinated to examination. This is due to many causes of which I shall take the liberty of mentioning a few :—

(A) Percentage of passes in the examination is a test of success, or otherwise, of a school or college.

DAS GUPTA, KARUNA KANTA—*contd.*—DATTA, A. C.—DE, HAR MOHUN.

(B) The possession of a university degree is a passport to many services, and to the study of law—and the condition of the country is such that service or law is looked upon as the final goal by a no insignificant number of students.

(C) A plucked candidate is always considered as a person of inferior merit by our society no less than by employers when filling up vacancies or newly created posts.

(D) The standard, for instance, of knowledge demanded of a matriculation candidate seems to be lower than it was ten years ago. As a necessary consequence the number of passes in the first division is quite disproportionately larger now than before. Candidates seem to know less, yet pass in a higher division now than in pre-matriculation times.

(ii) In my opinion, a subject in which teaching is given, but no university examination is to be held to test it, will be neglected in schools as being considered superfluous for the success of the school. In such cases, a departmental test by the inspector of schools or the headmasters to qualify pupils for sitting at the matriculation examination may reduce, to a certain extent, the evils thereof.

(iii) There should be special and distinct boards or universities for the professions of medicine, engineering, law, agriculture, commerce, and industry, but admission to these should be subject to the condition of a candidate being at least the holder of a science or arts pass university certificate.

As a test of fitness for the profession of teaching in schools one must be an L.T. or B. T., but this should be under the control of the divisional universities.

DATTA, A. C.

(i) I have already expressed my opinion in reply to some of the other questions that in this country teaching *is* subordinated to examination. The universities here have carried to perfection such an elaborate system of examination that it is difficult to find a substitute for it which can be marked with equal efficiency.

(ii) In order to reduce the rigidity of the examination I have suggested a beginning by the removal of the University hall-mark from the matriculation examination. This measure is expected to make the colleges realise a certain amount of freedom in the selection of their pupils, as well as in the conducting of their teaching.

(*a*) In order to facilitate the teaching in different colleges it will be necessary to prescribe courses as mentioned.

(*b*) But the latitude proposed to be given to the teacher will be a sufficient safeguard against the examination predominating.

(*c*) I do not, however, think that the entire exclusion of examination from the test of fitness of a student would work quite satisfactorily as suggested. But if the teachers themselves be examiners, they would naturally subordinate the examination to their teaching.

DE, HAR MOHUN.

(i) There is no doubt that there is some truth in this criticism.

(ii) (*a*) Yes.

(*b*) Only senior and experienced teachers of established reputation might, with advantage, be left with such freedom.

(*c*) Yes.

DE, SATISCHANDRA—DE, SUSHIL KUMAR.

DE, SATISCHANDRA.

(i) and (ii). Yes; to some extent. The number of text books should be decreased. A paper on general knowledge may be set in every examination above matriculation Otherwise, the examination system should remain as rigid as it at present is.

(iii) Examinations, however rigid they may be, cannot fully determine a man's fitness for a particular profession. Capacity for carrying theories into practice and character can be fully tested only by the actual discharge of professional duties. Hence, there should always be a probationary period, which should not usually be shorter than a year.

DE, SUSHIL KUMAR.

(i) The criticism that teaching is unduly subordinated to examination requirements can be justified only partially. The distressing economic condition of our middle class, the idea that the university degree is a sure passport for the different avenues of employment, and the tradition obtaining for a long time that no education is worth the name unless it is stamped by the seal of the University degree has led to a chronic overcrowding of the arts and science classes by a section of indifferent students to whom knowledge is not an end, but only a means. The existence of this class of students, to whom examination always looms conspicuous beyond everything else, has necessarily reacted upon the system of teaching. But examinations or tests of some kind must remain, and teaching must necessarily tend partially in that direction. If teaching is subordinated to examination here it is so subordinated everywhere else. Critics are always with us, have been, and will be; but criticism which merely takes a destructive form and does not crystallise into definite suggestions is, to say the least, more than useless.

My view of the matter is that abuses of the examination system consist not so much in the subordination of teaching to examination requirements—for teaching cannot be very well made totally independent of such restraints, and restraints of some kind ought to remain—but that they lie in other directions.

(ii) (*a*) and (*b*) The suggestions that teachers might be left with a maximum of freedom and the examination be adjusted to the courses actually given by them or that the examination test be removed in certain subjects afford no complete remedy; for such a system, except in the case of higher studies and of advanced post-graduate students, would be productive of no good. In the case of the I. A. or matriculation examination, where we have to deal with thousands of students, it would not be practicable to introduce such a scheme; and, if introduced, it will only bring in a confusion of standard with no ready and fixed rule to go by. Where our concern, as in the matriculation and I. A., is with a very large number (*e.g.*, six to fourteen thousand), the examination system and the enforcing of a common standard are bound, in the natural course of things, to be somewhat rigid and mechanical. In these cases, what is actually done in this University—if I may speak from personal experience—is that the examiners meet and agree upon a common standard which, however, they are not asked to enforce very rigidly, but sufficient discretion is allowed to them to consider individual cases. Five per cent of the work of individual examiners, again, is checked by the head examiners in the light of the understanding arrived at in the general meeting. This system, partially mechanical, has its defects, no doubt; but, so far as it goes, it has not been working badly and should not be replaced until a better system can be found.

DEY, BARODA PROSAUD—DEY, N. N.—D'SOUZA, P. G.—DUKE, W. V.—DUNN, S. G.

DEY, BARODA PROSAUD.

(i) In the existing university system teaching is unduly subordinated to examination.
(ii) Attempts should be made to reduce the rigidity of the examination system by giving the teacher certain well-defined freedom in teaching, and adjusting the examination to the courses taught.
(iii) There should be practical training for each specific career, and examination may serve as a test of fitness for going in for such practical training.

DEY, N. N.

(i) Yes; teaching is unduly subordinated to examination; no credit is given to the student for regular work throughout his college course.
(ii) An attempt should be made to reduce the rigidity of the examination system.
(*a*) and (*b*) The teaching might be defined by a syllabus of study, and the teacher may have sufficient freedom in the design of his course. The examination paper will be so set that questions to the value of the full marks only will fall within the minimum syllabus requirement; the alternative questions will be from portions out of the syllabus, so that the students who made an extensive study will get sufficient field for the selection of questions.
(*c*) In the practical science subjects especially there might be no test by a formal university examination—the students' note-books and records of practical work may be examined by internal and external examiners jointly.
(iii) Examinations alone cannot serve as a test of fitness for specific professional careers; diplomas may be given by the different faculties which would entitle one to practise in his profession without getting a university degree.

D'SOUZA, P. G.

(i) In a purely federal type of university it is impossible to prevent teaching from being unduly subordinated to examination.
(ii) (*a*) and (*b*) The remedies proposed are all of the nature of palliatives, the success of which will depend entirely upon the class of men who are chosen as teachers.
(*c*) In the case of subjects in which practical work forms the most important part of training examinations should play a secondary part.

DUKE, W. V.

(i) There is validity in the criticism.
(ii) The rigidity of the examination system should be reduced.
(*a*) If this means that simply the amount of knowledge required in each subject for any particular examination will be stated and no text-books indicated then I consider this would be the best method. Text-books are the curse of Indian education and simply encourage the teacher to refrain from study and from preparing definite schemes or programmes of work.

DUNN, S. G.

(i) My experience in the United Provinces convinces me that this criticism is justified there, but that the evil is not due to the examination system. It is due to two causes:—
(A) Students have been so badly trained in the schools, they have so little general knowledge, and their thinking powers are so underdeveloped, that the teacher

DUNN, S. G.—*contd.*—DUNNICLIFF, HORACE B.

in a college finds himself compelled to concentrate his attention on the bare requirements of the course prescribed for the examination. In the English course, for example, his whole time is spent in the interpretation of the texts prescribed for study; for even this elementary work he has not time enough since the difficulties experienced by his pupils are so many and baffling owing to their deficient knowledge of English as a language. If the teacher is to get his pupils safely through the examination he must neglect the real business of education, the wider issues, the broad view. He can only hope to impart these in the hours outside the lecture-room, and these are few.

(B) The second cause is the weakness of the teaching staff. Too many of our teachers in colleges are not men of a real university type; they are capable of cramming their students for examinations because they can themselves make use, for this purpose, of text-books, notes, and "keys"; but they have no original views, no power of awakening interest, no grasp of their subject. They subordinate their teaching to the examination because they do not know how to teach in any other way.

The evil will continue until we have better material sent up by the schools and better teachers to deal with that material. No reformation of the examination system, no grant of greater freedom to the teachers, will avail while the present conditions exist. The student is also to blame in the matter. The Indian undergraduate is probably no more lazy than the young men of other countries, but in India there are not the same inducements to make him work as there are elsewhere, and there are, at the same time, many things to distract his attention, even in those periods of the year when the climate is favourable to mental exertion. It must be remembered that, apart from a real interest in "divine" speculation, there is in India a traditional distrust of "humane learning and literature" rarely defined and sometimes indignantly repudiated, but as powerful a deterrent from activities that seem in its eyes "vain" as a similar belief was in certain periods of mediæval Europe. There is little pressure brought to bear upon the student outside the college to learn for the sake of learning, and it is natural that he should take the line of least resistance and work for the examination alone.

DUNNICLIFF, HORACE B.

(i) Yes; it is very difficult to suggest a remedy.

(ii) (*a*) Up to a certain standard, B.A. and B.Sc. pass, the teaching should be defined by prescribed examination requirements, otherwise it will be very difficult for mufassal colleges to compete with those in the University town. Two courses might be instituted—one for internal students and another for external students (mufassal colleges). I do not think that, in India, it is practicable or advisable to attempt to collect all students in one town. The question of expense alone would prevent many students from taking higher education. For B.A. and B.Sc. honours and M.A. and M.Sc. degrees students might all be collected in the University town.

(*b*) Only for B.A. and B.Sc. honours and M.A. and M.Sc. degrees, and there should be some understanding between examiners and teachers.

(*c*) I agree to this in the case of the M.Sc. research paper. The opinion of the expert under whom the candidate has worked should be accepted so far as that part of the examination is concerned.

(iii) Acknowledging that the standardisation of ability by university examinations is unsound, one is driven to the difficulty of suggesting a constructive policy. I am not in favour of dispensing with the system of dividing the successful candidates in an examination into classes or divisions. The principle is so deep-rooted that the men selected under a new rule (possibly better men) would be the first sufferers. I suggest that, in the granting of the honours B.Sc. and masters' degrees, the opinion of the candidate's teachers should be taken so that a good

man should not suffer for his future by being classed as "third class" because he happens to be indisposed during the examination days or, what is much more likely, overworked by cramming or upset by examination fright. I would not make this concession for pass degrees. Under very rare circumstances an *ægrotat* degree might be given in the case of honours degree and masters' degree candidates. *Ægrotat* degrees would not be classed. The practice of giving flattering, and often quite undeservedly good, certificates is very pernicious. Officials often mention this and, with some, it is their practice to send along a "confidential" to the writer of the certificate to ask what his *real* opinion of the holder of the certificate is.

Degrees, not diplomas only, should be granted in such subjects as agriculture, etc., otherwise the average Indian employer will put the qualifications of the candidate with a first-class diploma in agriculture on a lower plane than the man who can put the magic letters "B.A." after his name even though *the latter* be a man who has secured a low "third" after failing two or three times. This difficulty has already been *anticipated* in the Punjab and a degree in agriculture is to be instituted. The college at which students will be trained is at Lyallpur. It may be argued that this is mere sentiment, but the fact remains that the employer is often a man who has not had a university training and is a believer in the letters "B.A.". It is incumbent on the educationist preparing young men for their life's work to see that they go out well equipped and have a fair field in which to compete.

DUTT, BAMAPADA.

(i) Yes; under the existing university system the teaching is conducted with a view to success in examination—to secure a pass anyhow. Under normal conditions teaching should be quite independent of examination and teaching should be imparted with the only object of imparting knowledge to the student and examination should be looked upon as a means to ascertain the qualities of teaching imparted, and not as an end for which teaching is necessary.

(ii) Yes; an attempt should be made to lessen the rigidity and number of the existing examinations. For, in that case, students will not confine their whole attention to preparation for answering typical questions to be put in a question paper, but will be freer to attain general knowledge of the subject. For the above purpose teaching should not be defined by prescribed examination requirements and the teacher should be left with a maximum of freedom and the examination should be so adjusted as to test whether the student should have acquired the principles and a fair knowledge on the subject.

(iii) An examination so arranged as to test the practical knowledge may serve as a test of fitness for a specific career in the profession of law, medicine, teaching, and engineering, but examination is not a sound test of fitness for a specific career in agriculture, commerce, industry and administration of public service. In agriculture, commerce, and industry the fitness should be acquired by a real apprenticeship for a sufficient period by passing through the mill, as they say. Fitness in administration of public service requires a sound and liberal education, followed by apprenticeship for a comparatively shorter period.

DUTT, REBATI RAMAN.

(i) Knowledge is reflected in the eyes and face, as they say, but there is no means of measuring this light of knowledge except by means of examinations whether the questions are put all at a time by outside examiners to be answered within limited hours at the end of a year, or whether questions are put every month or quarter by the class teacher to be answered within limits as before, or whether questions

DUTT, REBATI RAMAN—*contd.*

are put off and on, and there is kept no hour-limit for answers. There are these tests of knowledge everywhere and I do not see how our University can be blamed for subordinating all teaching to examination. Certainly no teacher teaches only unconnected answers to possible questions, nor any sensible student merely reads possible questions and answers without the book. I know one may point at our note-books with a sneer. But a note-book is not often so much rubbish, as is hurriedly supposed. I am asked to read a particular book. I need not know every page. If I know the essential points in the book I may claim to know enough. A friend tells me the essential features within a narrow compass and I master them. I do not think I, therefore, commit a crime. If I like I may proceed into further details. Similarly, possible and model questions also point out the essential features of the book and it is no crime to know them in this way. There are good and bad students everywhere, in every university, and our good students read the book as much as others do, without caring what may be the possible questions. Of course, we think of success in our examination, and the British university tutor also aims at nothing less.

(ii) The rigidity of examinations should be considerably removed. As I have already said if a boy fails in two or three papers in the matriculation out of the eight proposed, he should go in for only those papers six months after. Similarly, out of the five subjects in the I. A. and I. Sc., if one fails in two, he will go in only for those two papers six months after. In the B. A. and B. Sc. examinations, if one fails in one paper, he will go in for that paper only six months after. It may also be convenient to divide the subjects in the matriculation and I. A., and I. Sc. into a principal group and a subsidiary group. If one fails in the principal group, he will go back for a year and, if in the subsidiary group, for six months. As it is, suppose I have taken up Sanskrit, history, and logic for the I. A. course ; I have passed in Sanskrit and history, *i.e.*, I can follow the higher course in those subjects and, really, I shall take up these subjects in the B. A. course, but. because I got five marks less in logic I am rigidly asked to go back for a year. Indeed, I should propose that the intermediate course be settled with a view to the B. A. course, and the number of subjects in the I. A., course reduced to four.

(*a*) The scope of teaching will be defined, as at present, by prescribing the syllabus and text-books covering the syllabus.

(*b*) Teachers may, and often do change in our private colleges and considerable freedom left to the teacher might mean chaotic conditions.

(*c*) To remove a public examination test from a subject might mean withdrawal of all interest therein, as has been the case with geography in the matriculation course.

(iii) The University gives the academic fitness, but fitness in a particular career in life depends upon many other things than mere academic attainments. The best scholar is not always the best lawyer or the best doctor. All that can be said is that he promises to be so, provided he continues in his efforts, and provided he finds an opportunity. This latter is, no doubt, a vague term for definition, but it is a very real thing in life. An Indian would sometimes add his Karma, too, the accumulated opportunity of his past lives. However, for all practical purposes, the examination may be considered as the surest test of fitness. It betokens a high degree of intelligence which cuts its way in life.

Administration in the public service also requires an all-round man who keeps multifarious information, keeps his eyes ever open and alert, has got great tact, ability, energy, firm grit, and common sense. It is the situation that develops these virtues. An executive officer will develop one kind of virtue, a judicial officer another kind, and a professor quite another kind, though they were classmates of the same type. But this is very true that the best scholar who has taken an all-round course of training will always do the best. History, economics, mathematics, physical science, and general English literature are subjects best calculated to develop the necessary virtues for efficiency in the public service.

DUTT, REBATI RAMAN—*contd.*—DUTTA, PROMODE CHANDRA—FORRESTER. Rev. J. C. —GANGULI, SURENDRA MOHAN.

I would, however, say with emphasis that this present year rigidity of examinations should be altogether removed from the lower classes of the high English school, *i.e.*, from class III to class VII, the classes below the standard of preparation for matriculation. Teachers will be left with a maximum of freedom, and the examinations will be adjusted to the courses given by individual teachers. Selection of text-books should not be left to an outside committee or department and preparation of text-books should not be left to clever outsiders who can find their way out through the holes and corners of departmentalism. Teachers of a school should form the best organic body to prepare their own text-books with a view to ultimate preparation for matriculation. This is in consonance with the dignity of their position as teachers of boys, and this is likely to infuse greater feeling of respectful docility in the students themselves. I know teachers often change, but this tendency has been greatly reduced of late with the increased pay of teachers in schools, and a beginning may at once be made by an organisation, such as a district educational council, where head masters of schools will all be represented. The present district education committee, or public instruction committee, should be enlarged in its scope accordingly and should form a link between the University organisation at Calcutta and educational work in the country. The question of affiliation of new schools will be primarily considered by this district council and then forwarded to the syndicate. However, I shall speak more of this organisation in another connection but, here, I may say at once that headmasters of schools of a district might co-operate and divide themselves into groups to compile text-books in different branches for the lower classes of district schools, one set of books remaining in use for three or four years.

DUTTA, PROMODE CHANDRA.

(i) Yes; teaching is unduly subordinated to examination.

(ii) Trained teachers (both B. T. and L. T.) have proved a failure because the Education Department insists upon the daily examination of students and, consequently, hardly any real teaching is done in school hours. Ill-paid teachers are required to do so much mechanical work (entering marks in registers, etc.) that the small enthusiasm they may have for their work naturally dies out. Boys have to be taught everything at home. This leaves no time for recreation and play. School hours are really a period of imprisonment for boys.

FORRESTER, Rev. J. C.

I am inclined to think that until the ideal of education is higher it is impracticable to substitute for examinations other methods of testing a student's progress to any great extent.

GANGULI, SURENDRA MOHAN.

(i) It is true that, under the present system, teaching is unduly subordinated to examination. Undue importance is attached to examination, while teaching is not properly attended to.

(ii) The rigidity of the examination system should be reduced. That would enable the student to acquire a deeper knowledge of the subject.

(*a*) The answer is in the affirmative.

(*b*) I would prefer the system to any other if, and only if, good and responsible teachers are available.

(*c*) The answer is in the affirmative; it would encourage free and agreeable reading, while studying for examination is always disagreeable and can scarcely help cramming.

GANGULI, SYAMACHARAN.

(i) Teaching has necessarily to adapt itself to the requirements of examination. Our university system of examination has not always been good. Certain English questions at one year's entrance examination (as the matriculation examination was called then) attracted the attention of Herbert Spencer, and he condemned "the amazing folly of an examiner who proposes to test the fitness of youths for commencing their higher education by seeing how much they know of the technical terms, cant phrases, slang, and even extinct slang, talked by the people of another nation" (*The Study of Sociology*, 1888, pages 96 and 97). I remember an entrance examination English paper of many years ago, (in which the examiner asked the candidates to compare Scott and Byron as poets, and this because the book of English selections prescribed for that year's examination contained a short extract from one of Scott's poems and a short extract from one of Byron's. I also remember a logic paper at the first examination in arts (as the intermediate examination was then called) which demanded almost wholly mere memory work. Demand for literary criticism at the higher examinations has also had a bad effect. No criticism that is not original is of any value. Knowledge of the criticism of any standard critic may be demanded, but original criticism cannot fairly be demanded of candidates except at the highest literary examinations. But even at the highest examinations borrowed criticisms may be passed off as original. Very long ago I heard from a graduate of the highest distinction that he had reproduced *verbatim* at his examination a translation given him by his very distinguished professor of a criticism on Scott in a French review; and so he got credit for the French reviewer's ideas and for his professor's English.

Provision for questions being set or rectified by men of the highest ability, judgment, and attainments available would raise the character of examinations, and do raise the standard of teaching. A good deal has been done in this direction by the Calcutta University in recent years.

(ii) The burden could be lightened, I think, by requiring less of memory work than now.

(*a*) This appears to be the only feasible course.

(*b*) and (*c*). Would not be feasible.

(iii) The limits are for specialists in each subject to define.

GEDDES, PATRICK.

(i) Notoriously so; I take it unanimously so, at any rate among all effective teachers and senior students alike, whom I have met or heard the views of; and I do not see that a university has much use for others.

(ii) Again certainly.

(*b*) and (*c*). Should be applied increasingly.

A word as regards the association of the college teacher with the external examiner, as in every respect preferable to that of the central examiner alone. In my lifelong experience (and in alternating capacities) I have found this to maintain a good standard, not to lower this, as has too often, in the main unjustly, been assumed.

(iii) That examinations are not fully trustworthy as a test of fitness for any profession is obvious from the history and the present state of all; and also since the higher powers required in every profession only mature later, and with experience and opportunity. That any professoriate, or any examining body, can fully forecast these is expecting too much. The present state of things, educational and

examinational, is a serious factor in the mass of these professions performing too little.

It is plainly possible to progress experimentally, yet in a very few years—from examination to *estimation*, and this in all subjects, and in all professions of which I know anything. The example already cited, from one of which I know little or nothing, that of the navy, seems also very encouraging in this regard.

GHOSA, PRATAPCANDRA.

(i) I believe the existing university system, as understood by private colleges and schools, is unduly subordinated to examination. The defect is more in the authorities of the schools and colleges than in the university system.

(ii) Yes; it is desirable to attempt to reduce the rigidity of the examination system. As it is, I fancy it is more mathematically attempted than practical. One should never forget that in practical matters mathematical accuracy is impossible. Equitable justice, as suggested by common sense, is human.

I do not understand the present complicated machinery—wheel-within-wheel questions for examination are set by one—these questions are submitted, perhaps to a superior set of beings (moderators ?), and a third person examines the answers. I am not sure about the facts but, if such be true, I should not be surprised if scrutinisers were appointed on the complaints of aggrieved students.

(*a*), (*b*), and (*c*) I am humbly of the same opinion as is expressed.

GHOSE, Sir RASH BEHARY.

(i) There is validity in the criticism that in the existing university system teaching is subordinated to examination. But this is inevitable to secure uniformity as far as possible in the case of the lower examinations, in which quite a large number of candidates appear; but such a result may be avoided in the case of the highest examinations by the following means:—

(A) giving the teachers more freedom in teaching and in the design of courses and studies, and introducing examination by those who teach; and

(B) requiring a record of continuous work to be kept for each candidate during the period of his study.

(ii) An attempt ought to be made to reduce the rigidity of the examination system.

(*b*) Is practicable in the case of the highest examinations.

In allied, collateral, or subordinate subjects, *e.g.*, mathematics, physics, and chemistry, and pure and applied mathematics, examinations may be dispensed with.

(iii) I think examination is a fair test of fitness for a specific career in all the cases mentioned.

GHOSH, BIMAL CHANDRA.

(i) There is ample ground for saying that teaching is unduly subordinated to examination:—

(A) In many cases a severe test is exacted even where no help has been given by teaching or by teachers. This is worse in the medical degree examinations.

(B) Then there are too many college "tests" which, in most cases, only encourage a resort to dishonest means of obtaining marks.

GHOSH, BIMAL CHANDRA—*contd.*—GHOSH, DEVAPRASAD.

(C) " Exercises " are invariably interpreted as " examinations."

(D) Lectures are often adapted to the examinations—rather to the requirements of individual examiners—paying very little attention to the syllabus or the subject.

(E) There should be no hesitation in saying that examinations have acquired such an importance commercially that attempts are made to influence examiners, bribe demonstrators and menials in a laboratory, to an extent that is highly discreditable and disgraceful in a seat of learning.

(ii) By all means the rigidity of the examination system should be reduced. When essays, theses and practical work show clearly an adequate preparation examinations should be dispensed with.

(*a*) The syllabus of studies should cover a larger ground than the prescribed examination requirements, *i.e.*, the examination should always cover only the more essential parts of a syllabus for a pass examination, if not for honours examinations.

(*b*) Adjustments of examinations to courses given by individual teachers should be allowed only at post-graduate stages.

(*c*) Sections of a subject might easily be overlooked at examinations, especially for " pass " students. For example, students of psychology may take courses in practical physiology or mathematics; students of medicine may be encouraged to go through courses in psychology or mathematics; students of economics may take courses in mathematics and yet need not submit to formal tests in such auxiliary subjects except perhaps for honours or special distinction.

iii) Examinations are intended to find out *the knowledge of the subjects* possessed by the candidate and also test his *power of expression.*

In law and teaching the latter element—power of expression—is of far more importance than the actual details of law and the subjects of teaching.

In medicine and engineering, on the other hand, it is the *readiness* with which the details can be recalled and acted upon that is of much greater importance than the power of expression.

In the latter cases, therefore, *the oral and practical examinations* are of greater importance than the written.

Also in these subjects—medicine and technological subjects—examinations serve to test the candidate's *information* and knowledge of other people's experience, *viz.*, the experience of his teachers and text-book writers. His own experience has to be earned after he receives his diploma and degree and commences the actual practice of his profession; in other words, while he serves his term as apprentice or clinical assistant to a firm of engineers or surgeons or at hospitals. A man fresh from the University is, therefore, not yet fit for the independent charge of a business or a firm or a ward in a hospital. Fitness for a specific career comes after a term of service as apprentice or assistant to senior workers.

Teachers of medical and scientific and technological subjects have to be men well-qualified as regards the details of their subjects and well-tried in the art of expression and exposition.

GHOSH, DEVAPRASAD.

(i) There is validity in the criticism that teaching is unduly subordinated to examination.

(ii) I confess that if merit is tested by examinations, and if success in the various examinations is to be the passport to all sorts of service, it is exceedingly difficult to manage that students should not be more anxious to pass the examination than to advance their store of knowledge. On the other hand, no method suggests itself to me which can give a uniform test of the capacity of students than some formal and rigid examination. This much can be done that the college authori-

GHOSH, DEVAPRASAD—*contd.*—GHOSH, Rai HARI NATH, Bahadur—GHOSH, JNANCHANDRA —GHOSH, JNANENDRA CHANDRA—GHOSH, Rai Bahadur NISI KANTA.

ities try to institute a number of examinations throughout the year, and keep a record of each student, and pass students on for the final university examination on the strength of such record. This may ensure fair and continuous work on the part of the student throughout the year.

If examinations be abolished altogether, or if examinations are to be adjusted to the courses given by individual teachers, I think there will cease to be any uniformity, and I fear also that much undesirable influence may be brought to bear upon teachers in order to persuade them to give the necessary certificates.

GHOSH, Rai HARI NATH, Bahadur.

(iii) Examinations, too, serve a test of fitness, no doubt, but not exclusively of certain other very important considerations for certain special professions; *e.g.*, in the case of teachers the question of health, temper, and character.

GHOSH, JNANCHANDRA.

It is true that whatever teaching is given is done for the purpose of making students pass examinations. I think certain subjects, such as drawing, might be taught in schools without any university examination, all recognised schools being compelled to teach the subject efficiently to all its students. I believe practical examinations in science for the B. A. pass may be left to the colleges, under proper inspection by the University.

GHOSH, JNANENDRA CHANDRA.

(i) In the existing university system teaching is completely subordinated to examination.

(ii) The severity of examinations should be relaxed by requiring students who have got plucked in a particular subject to appear in that subject only at the ensuing examination and by insisting upon the setting of sensible questions which will test the general knowledge of students.

GHOSH, Rai Bahadur NISI KANTA.

(i) It cannot be denied that there is truth in the criticism that teaching in the present university system is subordinated to examination; but whether it is unduly subordinated it is very difficult to say.

Teaching, as a matter of course, must be subordinate to examination more or less, as without an examination test it cannot be found out as to what one has learnt. So it must be, to some extent, subordinate to examination. Special regard should be paid to the educational opportunities and needs of the Bengal examination certificate, which is the only passport for employment and for earning a livelihood. As such, the examination system cannot be done away with. Consequently, the teaching is more subordinate to examination here. The system of university teaching in this province affords more facilities for passing an examination and is mainly adopted towards that end.

(ii) The rigidity of the examination system has already been much relaxed by way of allowing students to take up optional subjects, and by leaving out text-books and adopting a syllabus of studies in English for the matriculation examination (which, I am afraid, students never read), and by giving other

GHOSH, Rai Bahadur NISI KANTA—*contd.*—GILCHRIST, R. N.

facilities for examination, such as, setting papers in vernacular translation, essay, elementary questions in grammar and arithmetic, etc.

The number of passed students in the matriculation examination, and the major portion of them standing in the first division, proves the truth of the above.

GILCHRIST, R. N.

(i) Teaching is unduly subordinated to examination in the University; in fact, though there are many teaching colleges in the University, students, as far as examination results are concerned, might all be external students. I have already spoken of this in the first question in reference to the University organisation. to the lack of knowledge in English, to cramming, and to text-books.

(ii) (*a*) I consider that under any university organisation the teaching must be defined by prescribed examination requirements. The present University defines work in this way, but the prescription of work should be on the lines given in the University regulations, *not* as these regulations are interpreted in the calendar. I have the strongest condemnation for prescribed books or suggested books. Suggested books tend to become prescribed books. The scope of the work should be set down, and the method of teaching, as well as source of teaching, left to the teachers. Prescribed classics, of course, must be continued, *e.g.*, Shakespeare's plays in English or Aristotle's *politics* in political science. But I am in entire disagreement with such courses as the following :—

Economics and political philosophy pass course.

Paper I.		Paper II.	
Marshall .	Economics of industry.	Garner .	Introduction to political science.
Gide . .	Principles of political economy (Archibald's edition).	Woodrow Wilson .	The State.
Jevons . .	Money.	Ilbert .	Parliament, etc. (Home University).
		Bryce .	Hindrances to good citizenship.
			Imperial Gazetteer, Vol. 14, pages 14—40.

The subject matter of these books, not the course prescribed in the regulations, becomes the scope of the examination. Neither the examiners nor the students can get away from the books, with the result that teaching becomes a repetition of the books and learning becomes cramming and memorising. The prescription of subjects, not books, should be a rule in all subjects. Linguistic and literary studies perforce must involve prescription of books as definite texts; but these are not *text-books*. It is the prescription of text-books as such that I condemn.

(Incidentally, I may mention that the large-scale work of Calcutta, and consequent big profits to publishers, has made the subject of text-books one from which intrigue and wire-pulling are by no means absent.)

(*b*) With a policy like the above the teacher is left the maximum of freedom in his work. Not only so, but it requires a good teacher to do his work in this

way. The present system *has*, it is true, many badly qualified teachers, but it also *causes* men, whatever their initial qualifications, to become bad teachers and bad scholars. Very little scholarship is necessary to guide students in reading prescribed text-books. A good English dictionary and a few books of reference are more useful in such a case than initiative or scholarship. At present, teachers are dragged down (or pulled up, it may be) to the examination text-books level. The new responsibility implied by the scheme I advocate elsewhere will eradicate the incompetent and give full play to the powers of able teachers.

The maximum of freedom in teaching necessitates a system of examination different from the present. The course I advocate, in reply to another question, rests on my proposed basis of reconstruction. External examiners should be appointed whatever the organisation may be. In the unitary State university there is no difficulty: the teachers of the subjects, *plus* external examiners, will decide. In the new Calcutta University, with its colleges, each college should examine its own students with external examiners under the supervision of the faculties, the number of examiners being decided after a very careful examination of the conditions prevailing in the colleges. The examiners should be so arranged as to secure a uniform standard. This could be worked by a relay sort of arrangement. Only the general outlines of courses should be prescribed for these colleges. A board of moderators might be established for each subject, this board to decide whether the general university standard is upheld or not. *Mutatis mutandis*, the same procedure should hold for the colleges in the new federal University. The stronger colleges, the colleges which are selected for development, should have internal examinations, *plus* external examiners, and, till they disappear, the transitional colleges should be examined on similar lines.

(ii) (*c*) I do not consider that in any arts subject it is possible in Bengal to give degrees without the formal examination test. It may be possible in science subjects, but on that I am not competent to speak.

GOSWAMI, BHAGABAT KUMAR, Sastri.

(i) I think so.

(ii) Yes.

(*a*), (*b*), and (*c*) The views detailed command my entire approval.

(iii) Unless the final diploma itself shows the specialisation of a student in a particular branch (or branches) of a subject a general examination itself is no test. In all professions where practical knowledge must guide almost every step 'reports' on the special points of fitness of particular students must be relied upon largely. In all other cases examinations may be regarded as tests provided reports of regular work are considered in judging the results of the examinations.

For example, it is most unreasonable to appoint an M.A., even a first-class M.A., to take charge of higher collegiate education as a teacher unless his regular record shows high proficiency in the subjects in his charge. Speaking from personal experience as an old graduate of the Calcutta Sanskrit College I can say with some degree of confidence that the system followed there of old of imparting supplementary instruction and instituting supplementary tests was far better adapted to the requirements of educational service (in Sanskrit) than the general university system followed in other institutions in the same subject (Sanskrit). I may mention here that the system now in the Calcutta Sanskrit College has been considerably modified, and supplementary instruction has been made optional. I should like a complete reversion to the old system so far as Sanskrit teaching is concerned in the Calcutta Sanskrit College, and similar

GOSWAMI, BHAGABAT KUMAR, Sastri—*contd.*—GOSWAMI, Rai Sahib BIDHUBHUSAN—GOSWAMY, HARIDAS.

systems should be developed in other institutions so that every institution could claim more or less speciality in particular subjects. Records of work in these institutions under changed conditions would certainly be better guides than general examination results.

GOSWAMI, Rai Sahib BIDHUBHUSAN.

(i) To a certain extent the criticism is valid.

(ii) It is desirable that the rigidity of the examination system should be reduced. The teaching of a subject, or subjects, should have the aim of enabling students to have a grasp of the subject, or subjects, and not the minimum knowledge required for a mere pass, for which a certain standard and subjects may be defined by prescribed examination requirements.

(*a*) and (*c*) The ways indicated might be combined.

(*b*) Teachers must have freedom; but to adjust the examinations to the courses given by individual teachers would involve serious difficulties; for, in that case, provision will have to be made for holding numerous examinations without any common criterion of judging the attainments of students preparing for the same examination.

(iii) There should be some fixed limits for holding examinations as a test of fitness for a specific career, *e.g.*, the professions of medicine, law, etc. The limits fixed by the present regulations may continue. But, in the case of the professions of medicine and teaching, the standard may, with advantage, be raised.

GOSWAMY, HARIDAS.

(i) Yes; the instrument of public examinations is already being used to restrict the teacher's freedom in arranging the curriculum and to dictate to him the methods of teaching. The way in which they are conducted serves to divert the student from all study that cannot be displayed in the examination and to make him forget or undervalue the larger purposes of study. A genuine pursuit of knowledge is, in most cases, superseded by a desire for distinction in the examination, or a pass, or a degree.

(ii) Some attempt should be made to remedy this state of things. We cannot altogether dispense with the public examinations in some form or other and educationists should, therefore, endeavour to rid the examinations, as far as possible, of their objectionable features.

The following suggestions are offered :—

(A) Only successful teachers having considerable experience as teachers of pupils of the stage he is to examine should be examiners.

(B) The examination should be regarded as a part only of the process of teaching and a means to an end. It should, therefore, be adapted to teaching.

(C) Questions should be so framed as to encourage the study of the right kind of thing in the right way. A mental grip of the subject, and not a mastery of details, should be the thing to be discovered.

(D) Examinations should be conducted by a combination of external and internal agencies, and teachers should be allowed latitude in framing the courses of instruction and in adopting their methods, though even here there should be a system, and every teacher or professor should not be allowed to impose his own particular nostrum of general education.

(E) There should be a formal examination in some subjects only while in others an inspection or scrutiny of the work done in the colleges or schools under the teachers should be substituted.

(iii) The formal examination should only test whether the required standard of knowledge has been attained and in some subjects this should be supplemented

by a practical examination, or an examination of the records of the pupils' work, or a course of practical training, after the formal examinations, but before entering a specific career, to ensure that the power of applying their knowledge has been acquired.

In the case of a teaching career the rules should be elastic enough to permit, under adequate safeguards, successful teachers of certain standing, say ten years, to satisfy the prescribed test without attending a long course at a training college. The existing rules for admission to the B. T. examination should be accordingly revised.

GRAY, Dr. J. HENRY.

(i) Yes.

(ii) (*a*) (*b*), (*c*) Written examinations, and rigid ones, must be maintained, but emphasis and importance might be given to other means of testing ability, *i.e.*, practical tests. That students may be permitted to proceed with their studies, carrying a condition or two, and not be failed in a whole year's work because of failure in one subject. Supplementary examination to be held for the clearing of conditions.

(iii) That university examinations for a degree, and public service examinations for appointment, be separate, and each body to conduct its own examinations in its own way.

GUHA, JITES CHANDRA.

(i) I beg to submit that teaching in our University is greatly subordinated to examination. As, for instance, when a professor of English teaches his class, he does so with an eye to the University examination. He knows that he will have to finish a number of books prescribed by the University within a short period, and that students must be coached to pass the examinations, so he seldom has any freedom to direct his boys into channels of learning and study highly useful to the boys. I know of colleges where the tutors, instead of teaching the students how to write essays, substances, etc., in English, in the tutorial classes, coach them in getting up their text-books. This method, I think, ought to be discouraged. I have found students asking their professors and tutors to suggest such questions from their text-books as are likely to be set in the University examination. The bulk of the students read much, but they do not know how to write good, clear, correct, and simple English.

GUHA, RAJANIKANTA.

(i) Yes; there is some validity in the criticism referred to but, in this connection, I trust the following words of Professor Paulsen will be found helpful to us:—

"Certainly, in the main, the love of knowledge should be made the students' guide, not the examination and its requirements. Seek science first, believing that other things shall be added to you. However, it is easily possible to have too much faith.

"The true student will love his science and pursue it as if there were no such thing in the world as an examination, and this is right and proper; but, on the other hand, the well-advised student will not neglect to find out betimes what is required in the examination."—(*German Universities*, page 350.)

(ii) (*a*) and (*b*) I am in favour of the suggestions made in these two sections.

GUNN, J. W.—GUPTA, AMRITA LAL—GUPTA, BIPIN BEHARI.

GUNN, J. W.

(i) The criticism is certainly valid as far as the schools are concerned. Where a school does not happen to be affiliated in geography that subject is hopelessly neglected. Again, such an important "training" subject as drawing, if taught at all, is taught in such a perfunctory manner as to render it worthless. This is particularly lamentable in that the Bengali boy under a capable instructor shows a marked proficiency in this subject.

The very large majority of the schools I have seen in East Bengal are "cram" establishments pure and simple where everything is subordinated to the immediate requirements of the matriculation examination.

(ii) It is not practicable to modify to any great extent the present system of formal examination. The matriculation syllabus, with the addition of geography as a compulsory subject, needs no radical alteration. All that is required is that questions should be so set as to provide a more adequate test of intelligent knowledge. In mathematics, for example, there should be a separate problem paper.

(*a*) Would suffice, with this proviso
(*b*) Is impracticable, in consideration of the existing standard of teaching
(*c*) Would merely extend the evils already prevalent in the schools, namely, the general neglect of all non-examination subjects.

GUPTA, AMRITA LAL.

(iii) As a test of fitness for a specific career university examinations must be a very important determining factor. If anyone is lulled into the belief that, without even a tolerable grounding in general education, he may slip into any profession he likes, general education will be at an undesirable discount.

The second necessary condition for a specific career should be the possession of a diploma or degree though that cannot be held as an infallible test.

The above conditions satisfied, a period of probation for a year or so should follow.

GUPTA, BIPIN BEHARI.

(i) Yes; there is validity in the criticism.

(ii) The rigidity of the examination system should be reduced; and, if it be decided that there should be different stages of university training, some sort of examination may have to be prescribed.

(*b*) I strongly urge the adoption of this It will be a healthy stimulus to the teacher and the taught; and better and more original work may be expected from either.

(iii) It must be distinctly understood that success at the university examinations must not be regarded as the surest passport to professional and administrative careers. You give the boys the highest training, you throw them out into the world, and then they may submit to other tests for getting into service. There is some amount of practical training in the Medical College and the Engineering College; some sort of academic imitation of forensic eloquence in the moot-courts of the law colleges; success at these examinations may be regarded as a test of fitness for a specific career; but it is doubtful if the degree of B. T. will make a good teacher. A good teacher can not be forged offhand on the anvil of university examinations.

GUPTA, SATYENDRANATH—GUPTA, UMES CHANDRA—HALDAR, DR. HIRALAL.

GUPTA, SATYENDRANATH.

The following answer has reference to secondary education only.

(i) Teaching is unduly subordinated to examination and that for the following reasons:—

(A) Teachers teach only such things as are required for the matriculation examination, for all that parents seek is success at this examination.

(B) Teachers are men without high ideals and their teaching is, consequently, mechanical.

Really capable men on adequate pay should be employed as teachers. Teachers should be men trained for the teaching profession—B.T.'s and L.T.'s.

(ii) Rigidity of the examination system need not be reduced—only the standard of examination should be raised.

(*a*) The teaching has to be defined by prescribed examination tests, as now.

(*b*) This is not possible as the examination in that case will have to be conducted *in situ*. It is doubtful whether the University can undertake this; besides, there will be no uniformity of standard in that case.

(*c*) This is possible only in Government schools. Drill, drawing, and carpentry are taught there, though these are not subjects recognised by the University.

(iii) As regards the teaching profession two classes of teachers are required—one for the upper secondary and the other for the lower secondary department. For the former the B.A. degree should be taken as the minimum academic qualification and for the latter I.A. Both classes of men should specialise in teaching.

GUPTA, UMES CHANDRA.

(i) and (ii) Yes.

(*a*) Yes.

(*b*) No.

(*c*) Teaching in particular subjects or sections of subjects might be given though there might be no test by a formal university examination. Such training in many subjects is very desirable for solid and real education in those subjects.

(iii) There ought to be some university examination as a test of fitness for the professions mentioned in the question but, after the required university education is completed, special means should be adopted for training students to learn management and scientific guidance and research.

HALDAR, DR. HIRALAL.

(i) There *is* validity in the criticism that in the existing university system teaching is subordinated to examination. But this state of things cannot be remedied by any modification of the present system. Everything depends upon the teacher. If he is a genuine seeker of knowledge, and has enthusiasm for his subject, he should be able to create more or less a taste for it in the minds of his students. On the other hand, if he has taken up teaching merely as a means of living, because nothing else was open to him, his lectures will be mechanical, uninteresting, and lifeless and, at best, will only serve the purpose of barely preparing candidates for examinations. The all-important thing, therefore, is to ensure the supply of competent teachers who are themselves students. But the multiplication of colleges and classes necessitated by the rapid increase in the number of successful candidates at the matriculation examination has led to a considerable increase in the demand for teachers. The supply of qualified teachers, however, is not equal to the demand. Good teachers are not as plentiful as black

berries and you cannot have them for the asking. The inevitable consequence has been a deterioration of the quality in teaching.

(ii) (*a*), (*b*), (*c*) Such being the situation, the evil of the subordination of teaching to examination will not be removed by adopting these suggestions. The only result will be a further lowering of the educational standard.

I regret that I am unable to share in the satisfaction so often expressed at the spread of university education in Bengal. By all means make the diffusion of knowledge as wide as possible; let primary education be free and compulsory; if practicable, broaden the basis of secondary education, create openings for men inclined to industrial and commercial pursuits, but do not seek to make high education universal. The thing is impossible. What is high cannot be common. The object of high education should be to create an intellectual aristocracy whose influence will filter down to the masses and elevate them. All men are not fit to profit by the kind of education in literature and science which universities ought to impart. To try to adapt it to the capacities of the multitude is only to retain the name of high education, but to substitute for it something on a far lower plane.

HALDAR, UMES CHANDRA.

(i) Yes; the subordination is due mainly to two causes—inefficient teaching and defective methods of examination.

(ii) If there be any rigidity of examination that might be relaxed by permitting candidates who happen to fail in one or two subjects to appear at the next examination in those subjects only.

(*a*) There should be examinations.

(*b*) Yes; questions are to be set to test general knowledge only; questions are also to be set to test a thorough and minute knowledge of the particular portions of the subject taught by the teacher.

(*c*) In science subjects for the matriculation and intermediate courses boys may be required to do practical work under the guidance of teachers, but there may be no examination.

(iii) University examinations should not be the only test of fitness for any specific career. University degrees, supplemented by practical training, should be the test of fitness for such careers as those of teaching, medicine, law, engineering, commerce and industry. For administrative posts under Government competitive tests, both oral and written, at which only graduates would be permitted to compete, should be held. An opportunity will thereby be given to poor candidates of high academical attainments. The members of the provincial executive civil service recruited by open competitive examination were invariably men of superior calibre.

In this connection, I venture to suggest that for such specific careers as medicine, law, engineering, agriculture and commerce a school-leaving certificate, granted by the head of the institution in which a student last read, may be considered to be of the same value as a matriculation certificate. These certificates will be of special value in the case of students who fail to appear at the matriculation examination on account of illness or poverty. The training which such boys receive during nine or ten years will not be altogether wasted if such certificates be accepted by the special or technical school authorities.

HAMILTON, C. J.

(i) There is no doubt that at present in Bengal teaching is unduly subordinated to examination.

I have elsewhere indicated that this state of things is the inevitable consequence of any system of examination where the teaching is largely in the hands of in-

HAMILTON, C. J.—*contd.*—HAQ, Khan Sahib Maulvi Kazi ZAHIRAL.

experienced and incompetent teachers. The remedy cannot be found in merely abolishing the examination system, nor merely in modifying the character of the examination, nor even in placing the functions of teaching and examination in the same hands. The only efficient remedy is to raise the quality of teachers.

(ii) I believe that at present the regulations prescribing the scope of examinations are interpreted in many cases far too narrowly. For example, lists of books recommended are taken as synonymous with an exclusive course of reading prescribed for the students. Again, the majority of the undergraduates appear to form from regulations very definite ideas as to the subjects which fall within the scope of the examination and I think it is a common experience that they pay little attention to any discussion by their teachers of subjects outside this scope. I think the remedy for this is to be found in substituting for detailed statements as to the topics falling within the scope of the examination broad general indications. The proper method of controlling the course of study is to place the responsibility in the hands of the boards of studies which should be at liberty to recognise such courses offered by the various lecturers as they deem desirable. The examination in any given year could then be based upon the courses of lectures thus recognised. It is, of course, possible that such a measure of elasticity might handicap non-collegiate students. But, when a sufficient choice of subjects is left to students, and when each examination paper contains a fairly wide choice of questions to be answered, I think no greater hardship will be inflicted than is necessarily incurred by a student who is deprived of the advantage of university teaching. Further, it is not desirable that external or non-collegiate students should be unduly encouraged.

(iii) Confining myself to the question so far as it relates to preparation for commerce and industry I am strongly of opinion that it does not fall within the function of a university to prepare students for the merely mechanical or technical tasks which they will have to perform in later life. A university course designed as a preparation for commercial or industrial occupation should not aim at equipping bank clerks or accountants or works managers or other similar classes with the details and the technique of their work which they must acquire subsequently.

It is ridiculous, for example, to include instruction in typewriting or shorthand in a course leading to a university degree. But I believe that for those intending to enter commerce and industry it is possible to give a high mental discipline through the study of subjects which relate to the problems with which they will be concerned in later life. Thus, for example, a general knowledge of the principles of money and banking can be made not only a means to intellectual discipline, but a source of real strength to one who subsequently becomes a banker. But the University should not attempt to describe the detailed organisation of a banker's office, or to prepare the future banker in the merely mechanical operations with which he will be concerned. I am not here disputing the possible use of institutions devoted to the task of purely mechanical preparations for clerks and so forth. But their work is entirely distinct from that properly falling within the scope of university education.

HAQ, Khan Sahib Maulvi Kazi ZAHIRAL.

The system of examination for testing the merits of students is, up to a certain limit, good, inasmuch as it fixes a standard of qualifications; but I must, at the same time, say that the system now obtaining requires a maximum of book teaching and a minimum of training.

(i) Yes; the chief, if not the only, aim in preparing students is to pass as many as possible.

(ii) If the suggestion I have ventured to make under question 8 is approved I think much of the difficulty about the proper kinds of tests might be

obviated; *e.g.*, for an agricultural course much practical training is necessary; for a medical course teaching and practice are equally necessary.

(iii) Examination should be considered an important test of fitness for a special career.

HARLEY, A. H.

(i) I do not consider that teaching is unduly subordinated to examination. In Bengal the student intellect is discursive and I consider that it requires the discipline of the examination system whereby it may be confined to intensive application for a period to essentials which are the condition of further progress.

HAZRA, JOGENDRA NATH.

(i) The teaching is unduly subordinated to examination.

(ii) It would be better to reduce the rigidity of the examination system by giving due weight to the properly kept college records of students' work by duly qualified teachers who have paid individual attention to students while at work.

HOLMES, Rev. W. H. G.

(i) I believe there is validity in the criticism that teaching is unduly subordinated to examination.

Students tell me that the normal methods by which they are taught is through specimen questions and specimen answers. At the end of each chapter, or section, questions are framed and the right form of answer dictated. The whole aim and purpose of the lecture seems to be determined by this. Before an examination students are engaged in learning the answers to a series of probable questions which have been put into their hands.

All colleges think themselves bound to hold a *test* examination which is, as far as possible, a foreshadowing of the university examination. Students go through almost exactly the same strain of cramming for this examination, sitting up late at night and learning questions to answers as they do for the university examination not only because they are not allowed to sit for the university examination unless they pass it, but because the passing of it is by itself regarded as an academic distinction. To be a "failed B.A.", and to advertise this as a qualification, means that the college test examination has been passed. The addition of this strain to the strain of preparation for the university examination heightens the concentration of students on examinations as ends in themselves.

HOSSAIN, WAHED.

(i) I believe that there is validity in the criticism that in the existing university system teaching is unduly subordinated to examination, and an attempt should be made to reduce the rigidity of the examination system.

(ii) Under the existing system, if a candidate gets plucked in one subject at an examination he is required to undergo the examination not only in the subject in which he was deficient, but in other subjects also. He cannot, therefore, devote his whole time and attention to the subject in making up the deficiency. I think it is useless to examine a candidate again and again in the subjects in which he is well up. To test his proficiency in the subject in which he proves deficient he should be examined in that subject alone

HOSSAIN, WAHED—*contd.*—HUNTER, MARK—HUQ, The Hon'ble Maulvi A. K. FUZLUL—HUQUE, M. AZIZUL.

(*a*) I agree to what is suggested.

(*b*) I doubt whether the suggestion made will attain the object in view. All our teachers are not trained men, nor are they men of first-rate ability. So it is very doubtful whether, if left with a maximum of freedom, they will be able to adjust examinations to the different courses given by them individually.

(iii) The limits within which examinations may serve as a test of fitness for some of the professions mentioned below may be stated as follows :—

Law.—Three-years' course, examination at the end of each year on a group of subjects.

Teaching.—Two-years' course, with one examination only after two years.

Agriculture, commerce, and industry.—Three-years' course for higher training, and two-years' course without training in pure science, a formal examination at the end of the second year, and a final examination at the end of the third year.

HUNTER, MARK.

(i) There is certainly validity in the criticism that in Indian universities teaching tends to be duly subordinated to examination. The thing is, unfortunately, inevitable. Whether critics correctly gauge the extent of the evil, or whether the remedy they have in view is the right one, is quite another matter.

(ii) (*b*) I do not consider the changes indicated to be practicable.

(*c*) I do not consider it desirable, except perhaps in the case of some of the more advanced courses in which a certificate given by a university professor, or some college professor whose judgment and independence could be thoroughly relied on, might, in certain parts of the course, be accepted in lieu of an examination test. Still, even here there would be difficulties. To give power to one professor to grant certificates, and withhold it from another, would be invidious; to trust all would be fatal. In the ordinary courses the plan, I am convinced, would not work. Even were lecturers willing to teach, the majority of the students would be at no pains to learn subjects in which their proficiency is not tested by an examination. College examinations could, no doubt, be substituted for university examinations, but the consequence would be every variety of standard in the examination and a most undesirable variety in the value of degrees granted, to some extent, on success in college examinations. I believe the true remedy should be sought in steady improvement within the present system. Course and examination should be closely inter-related so that each in its proper sphere should be duly subordinate to the other. Provided the examination presumes the right sort of course, and the proper conduct of such course, there is no reason why courses should not, so far, be conditioned by examinations. But in order to effect this harmony it seems essential that the men who are really responsible for the courses should, in practice, control the examination. This would not preclude the appointment of external examiners; but these should be in a distinct minority.

HUQ, The Hon'ble Maulvi A. K. FUZLUL.

(i) My answer is in the affirmative.

(ii) (*a*) I would prefer the alternative suggested, with slight modifications.

HUQUE, M. AZIZUL.

(i) It is fully true that teaching is now unduly subordinated to examination. But the fault lies more with the people and with Government, with teachers and students, than in the system. Much depends upon the personal equation.

HUQUE, M. AZIZUL—*contd.*—HUQUE, Kazi IMDADUL.

It is not the system, but the men who control the system, that are everywhere responsible for stimulating the mental activities of students. There is in this country greater value attached to a degree than to knowledge. So long as that is so no university system can rectify it. The present university system does not specially contain any feature that brands the examination as an ideal by itself. Examinations have always been laid down as a standard test for the requisite amount of study and teaching; but the atmosphere generates a spirit that puts an overdose of premium on the result of the examination. Government has hitherto followed a rigorous policy in valuing the results of examinations, instead of the personal grit and fitness of the man behind. Personal element has hitherto been the least considered factor in Government service and, in posts of petty clerkship,even, superfluity of university qualifications is preferred to such an abnormal extent that one who has fared badly, or even got plucked in a university examination, but has fully retained his other abilities, has little chance of success in getting entrance in competition with what is humorously termed the better qualified candidate. It is simply because this element has entered the Indian administration that superfluity of degree always stands a better chance, that a student prefers to have his examination at all costs—leading up oftentimes to sacrifice of health, happiness, even character and morality. It is exactly here that the grievances of Musalmans lie so far as Government service is concerned. Competent officers and able administrators have gone in the past without the hall-mark of the University, and Musalmans begin to rub their eyes when they are asked to come better qualified. This undue premium and value of examination lead up to complete wreck in case of failure, ending sometimes in suicide.

(ii) Yes; if possible.

(*a*) Yes.

(*b*) Impracticable in the present condition of India.

(*c*) There may be a regular university examination too. That is also *a*, but not *the*, test. But it should not disqualify one from entrance into any calling or occupation, which should depend upon a leaving certificate.

I suggest generally that researches and special study ought also to qualify men for degrees.

HUQUE, Kazi IMDADUL.

(i) Teaching is certainly now being unduly subordinated to examination.

(ii) I think all the three ways suggested in this question ought to be adopted with a view to reducing the rigidity of the examination system.

(*a*) A syllabus may be prescribed, but in a very general way, laying down the limits within which questions will be set.

(*b*) The teacher ought to have a good deal of freedom in his teaching within the prescribed limits, the papers set at the examinations having a wide range of alternatives to suit the courses given by individual teachers. It seems desirable that teachers should have their own particular course approved by the University from time to time.

(*c*) Teachers ought to be free to give a previously approved course in some particular subject which is not unconnected with the general course of studies prescribed by the University. In secondary schools, for example, a course of manual work (which may be largely connected with the various school subjects) ought to be such a subject and encouraged everywhere. There need not be any formal test in it by the University.

(iii) In the case of fitness for the profession of *teaching* a university examination may be given only in the theoretical subjects, such as educational psychology, general principles of method, history of education, etc. Beyond this any general examination in the practical part of the training is not likely to serve as a test of fitness. College authorities ought to be given the freedom of testing the practical fitness of students under training in their own way, keeping

HUQUE, Kazi IMDADUL—*contd.*—HYDARI, M. A. N.—IBRAHIM, Khan Bahadur MUHAMMAD—Indian Association, Calcutta.

in view mainly their progress during the entire period under training. Moreover, the final certificate of fitness ought to be dependent upon the report of actual work done during the probationary period of the professional career (say two years) after leaving college.

HYDARI, M. A. N.

Speaking generally, without reference to Bengal in particular

(i) Yes.

(ii) Yes.

I would adopt one or other of all these three ways according to the nature of the subject. I would have a large number of subjects from which any grouping that may be desired by the student or the teacher should be allowed. See also my reply to question 5 (iii).

(iii) The examinations should be tests of fitness for all the careers mentioned in the question, but I would allow more freely the use of books, especially in the higher examinations, the questions being framed so as to ascertain the ability of the student to apply what he has read, rather than the amount of information he can remember.

I would also, for the higher degrees, like the doctorate, etc., prescribe a certain amount and period of practical work done after taking the bachelor's degree.

IBRAHIM, Khan Bahadur MUHAMMAD.

(i) Yes; teaching is unduly subordinated to examination, and the result is that the system of dictating notes and the practice of cramming is automatically encouraged, for, without those, satisfactory results in an examination cannot be secured.

Here the word examination does not mean a test of proficiency, but a test of memory without a thorough understanding, digesion, or study of the subject in which the student is examined.

(ii) No attempt should be made to reduce the rigidity of the examination if by the word rigidity is meant strictness as to the real test of the students' knowledge of the subjects in which they are examined.

(*c*) Intellectual education without moral and religious training is useless. So, these should be imparted to students in every institution according to the traditionary and religious principles of the sects to which they might belong, though there need not be any university examinations in the subjects.

(iii) If, as suggested in answer to question 2, the standard of the matriculation examination be made higher than what it is at present this examination may well serve as a test of fitness for entry to courses of medicine, law, agriculture, commerce, and industry or the present intermediate standard may serve that purpose.

Indian Association, Calcutta.

(i) Under the present system education is subordinated to examination, which largely fills the mind of both the teacher and his pupil.

(ii) (*a*) It will not do to relax merely the rigidity of the examination. For then the teaching will further deteriorate. Teaching must be associated with life and practical utility. Professor Jowett's great dictum was that the end of all education should be the application of the reasoned judgment to all concerns of life. But whatever is taught must be periodically tested and the oftener the better. The present test of a six-hours' examination for the work of a

Indian Association, Calcutta—*contd.*—IRFAN, Maulvi MOHAMMAD—IRONS, Miss M. V.—ISMAIL, Khan Bahadur MOHAMMAD—IYER, The Hon'ble Mr. Justice T. V. SESHAGIRI.

whole year or more in respect of any subject is insufficient and inefficient. It is extremely doubtful if the University can undertake this closer test by more frequent examination. That must be left to teachers, who should be made responsible for the periodical examination.

(*b*) and (*c*) It is doubtful how far such a course will enhance the effectiveness of teaching. If formal examinations are dispensed with some means must be found for testing the knowledge imparted.

(iii) In all professions except administration in the public service, the knowledge of theory acquired by the student, and his capacity for the practical application of it, should be tested by examinations conducted on sound lines.

For the public services there should be held special examinations to see if the candidates are fit to take part in the administration. University examinations alone should not furnish any opening to the public services except in the case of ministerial appointments.

IRFAN, Maulvi MOHAMMAD.

(i) In my judgment this criticism is exactly true and valid.

(ii) The rigidity of the examination system ought to be reduced in order to inspire students with a love of knowledge for its own sake.

(*b*) and (*c*) The use of examinations may be varied in both ways.

IRONS, Miss M. V.

(i) I feel very strongly that teaching is now unduly subordinated to examination. The teacher's success depends primarily upon the number of students he can pass for examination purposes. The school authorities appear to take teachers to task for failing to pass a higher percentage of students. Sometimes students themselves say that they attend a school or college simply to pass examinations. The guardians of students generally endorse this view when they send their boys to schools or colleges.

ISMAIL, Khan Bahadur MOHAMMAD.

(i) There is great force in the criticism that in the existing university system teaching is greatly subordinated to examination. But, having regard to the qualifications of the teachers available in this country, and the general poverty of the people, there is no alternatiive. General examination in the primary stage, *e.g.*, lower primary, upper primary, middle vernacular, and middle English stages, have been abolished, but the result attained is very poor. Boys coming out of those stages are far inferior in quality than those coming out of a general examination system. Unless we are prepared to spend more liberally on education we cannot expect to get any satisfactory results by abolishing the present examination system. As the country cannot afford to pay more I would not dare suggest any alteration in the existing system of examination as I am afraid it will deteriorate the quailty of attainments.

IYER, The Hon'ble Mr. Justice T. V. SESHAGIRI.

(ii) (*a*), (*b*), and (*c*) In Madras—I believe it is the same in Calcutta as well—the main object of teaching seems to be to prepare young men to pass examin-

ations, and not to develope their minds or to make them useful citizens. In my opinion, all the three conditions mentioned should be insisted upon in regard to examinations.

(iii) I wish to offer some detailed observations. Law and teaching require high proficiency in English. There can be no question that an advocate should have a thorough knowledge of English. From the profession of law a large number of young men are drawn for the judicial service. They have to write their judgments in English, and they are expected to rise on the ladder of the service. It is absolutely necessary that they should have as high a knowledge of English as is obtainable in the universities. Similarly with regard to the profession of teaching. Every endeavour should be made to give the would-be teacher the best possible training in English. The same remarks do not apply to medicine, engineering, agriculture, and commerce. At present, the course pursued by the University of Madras renders it obligatory upon students who aspire to become engineers to acquire a very high standard of preliminary training in English and other literary subjects before entering the portals of the Engineering College. This is absolutely unnecessary. A student, after the entrance examination or at least after the intermediate examination, must be required to undergo training in the Engineering College not for two years, as at present, but for three or four years. It is only then that his knowledge of engineering subjects would be more thorough and his usefulness in the profession more marked. The same may be said of the medical profession. A medical student need only have what is called a practical knowledge of English. The present conditions under which he is required to pass a high examination in general subjects before entering the college classes of the Medical College is not calculated to improve his efficiency as a student of medicine. There are no colleges for commerce or industry at present in Madras; but, should any be started, my remarks in regard to engineering and medicine would apply to them as well.

JALIL, ABDUL.

(i) Yes.

(ii) Yes.

(*a*) Yes.

(*b*) Yes

(*c*) No.

(iii) Half the admissions to the institutions preparing students for specific careers should be made on the basis of certain school and college examinations while half should be made after a special test examination for admission to those institutions. In the case of students who fail in a school or a college examination, qualifying them for admission into a technical school or college, to secure minimum pass marks in a subject not of particular use in their training for a specific career, but who do gain more than 50 *per cent.* in subjects useful and necessary for that particular career, failure at the university examination should not debar them from admission to the technical institutions under the first head.

JENKINS, WALTER A.

(i) Teaching is almost entirely subordinated to examination.

(ii) (*a*) As far as the ordinary B.A. and B.Sc. degrees are concerned the teaching ought to be, to a certain extent, according to the prescribed syllabus (not traditional examination paper standards).

(*b*) But honours examinations, and more particularly M.A., M.Sc. examinations, should, to a great extent, depend upon the courses given by the teachers. It will be necessary to ensure, of course, that the post-graduate teachers are fitted for such work.

(iii) Industry or research—

Examination results can never be a sure test of a student's ability in industry or research. In such a case the opinion of his teachers is a far surer guide.

In England interviews and testimonials which mean something are a far surer guide than examination results. Unfortunately, the wholesale giving and abuse of testimonials has made them a very suspicious qualification with the result that at present the first position in the first class is the "Open Sesame."

It is unfortunate that at present there is no industrial outlet for graduates. The University itself, with its low standards and stereotyped work, is to a large extent, reponsible for this. When the industrial and commercial firms find that graduates can think, act, and "make good" they will begin to take graduates into their businesses.

JOHNSTON, Rev. A. B.

(ii) (*a*) I do not think examinations should be adjusted to courses given by individual teachers. If the syllabus is not too straitly defined, and a large choice of questions is given in the examination, sufficient room should be left for the individuality of teachers. It is very important to preserve the impersonality of the examinations, and avoid the possibility of, or the charge of, favouritism or undue influence.

JONES, T. CUTHBERTSON.

I do not propose to answer these questions in detail. Examinations are liable to abuse, especially in India, where the wonderful memory of students is often combined with the inability to marshal facts in their logical sequence and connection, or to preserve a logically consistent attitude in dealing with any problem. But here, as elsewhere, 'cramming' can be checked by questions which test the general intelligence and thinking power of the student, and by substituting the syllabus for the text-book, more especially in science, economics, philosophy, history, and English. I am not in favour of adjusting examinations to the courses given by individual teachers except in the case of post-graduate studies in arts, science, and technology. But examinations should be combined with systematic inspection of the work done in the class as revealed by class tests and students' note-books.

KADIR, A. F. M. ABDUL.

(i) There was a time when teaching was inordinately subordinated to examination but, with the enforcement of new regulations and the addition of tutorial hours to ordinary teaching work in the colleges, the evil can be safely said to have disappeared.

(ii) As for any attempt to reduce the rigidity of the examination system it is desirable that steps should be taken towards it. We might, with advantage, apply various different ways of examination to different subjects. In languages it is high time that a *viva voce* examination should be introduced, especially in modern languages, in which I include Persian and Arabic, as they are even now spoken by a vast number of people outside India.

(iii) Examination may serve as a test of fitness for a career in the educational or judicial branches of the public services but, in other departments, such as medicine and engineering, an additional test with regard to the practical side of the candidate's training is absolutely necessary.

KAR, SITES CHANDRA.

(i) I do not think the criticism is valid that teaching is unduly subordinated to examination. On the other hand, the remark would be better founded that the student's point of view is very often the passing of the examination.

(ii) (*b*) and (*c*) It would be desirable to reduce the rigidity of the examination by the methods suggested.

(iii) Examinations may be regarded as providing a fair test of fitness for a career provided practical work in some form or other is insisted upon.

KARIM, Maulvi ABDUL.

(i) There is no doubt that in the existing university system teaching is unduly subordinated to examination.

(ii) It is most desirable that the rigidity of the examination system should be reduced.

(*a*), (*b*), and (*c*) I fully approve of what has been stated.

KHAN, ABUL HASHEM.

I recognise the two facts in connection with the educational problem of Bengal. First, that there is an inadequacy of educational opportunities in the shape of libraries, museums, laboratories, workshops. Secondly, that the most crying need of Bengal is for practical, resourceful, enterprising men able to open up new fields of business and thought. Holding this view I am of opinion

(i) that, at present, teaching has, to an unnecessary extent, been subordinated to examination;

(ii) that an attempt should be made to reduce the rigidity of examination with a view to give teachers greater latitude in the choice of their subjects and methods in order to make education more practical.

(*a*) and (*b*) I would recommend a combination of the ways suggested according to the needs of different subjects and groups of students. For example, in English and classics, the course might be prescribed by the University with precision. In vernacular the course might just be indicated by a bare statement of the quality and nature of the work to be done—the selection of the subject being left to individual professors, and students being required to produce some work of such literary or educational value as might be regarded as a contribution to the literature in that language. In history a course might be laid down by the University and, in addition, professors might select some special period or topic for special study and research in which students would take part. In the last two cases the examination should be adjusted to the courses given by the professors.

(iii) Examination can never serve as a satisfactory test of practical fitness for a professional career. Examinations are necessary for testing a student's familiarity with the principles which underlie success in his vocation. Before, however, he may be declared fit for his career some period of apprenticeship, under competent supervision, should be insisted upon.

KHAN, MOHOMED HABIBUR RAHMAN—KO, TAW SEIN—KUNDU, PURNACHANDRA.

KHAN, MOHOMED HABIBUR RAHMAN.

(ii) (*a*) I am strongly of opinion that the minimum amount of the subject to be taught should be defined by the University.

(*b*) The selection of books, etc., and the mode of teaching the subject should be left entirely to the teacher.

Examination questions should be so framed as to ascertain how much the boy knows about his subject, rather than how much he knows about the subject as put down in certain given books.

KO, TAW SEIN.

(i) Yes.

(ii) (*a*), (*b*), (*c*) These are beneficial proposals.

(iii) For administration in the public service a separate examination may be held, as in England.

KUNDU, PURNACHANDRA.

(i) In the vast majority of cases teaching is unduly subordinated to examination (*vide* my answer to question 1.

(ii) Yes; an attempt should be made to reduce the rigidity of the examination system as at present prevailing and alter the existing rules into something like the following :—

(A) The number of university examinations is to be reduced, there being one for the matriculation, one for the graduate course (pass and honours), and one for the post-graduate course. Too many examinations hamper proper training and intellectual development.

(B) The system which requires students to pass in certain subjects all at a time, and the necessity of obtaining a certain minimum aggregate, should be changed. Students failing in one or two subjects, but showing high merit in other subjects, should not be compelled to go through the whole course for a year, but opportunities should be afforded to them to appear, say after every six months, and pass only in the subjects in which they failed, they being allowed, in the meantime, to continue their studies under the University as if they had passed. Failure in two such examinations, making altogether a maximum of three chances, should entail their removal from the University course. If this system be introduced the standard of examination and the minimum pass marks may also be raised to ensure better training in colleges.

(C) To ensure uniformity of standard in a university like that of Calcutta, with its colleges scattered throughout the province, it is necessary that undergraduate course teaching should be regulated by a certain prescribed syllabus, subject to alteration from time to time, if necessary, by the teachers themselves in a meeting; all the senior teachers of all colleges who are engaged in teaching the subjects shall meet, discuss, and settle the syllabus of study for their respective subjects.

(D) In the post-graduate course the teacher might be given a maximum of freedom and the examination adjusted to the courses given by the teachers. There is, therefore, no necessity for any syllabus for post-graduate teaching in any subject, but each of the post-graduate teachers must submit to the controlling officers of the University a detailed statement of the work done by him with each batch of students, and of the work done by the students under him which would qualify them for the post-graduate degree.

(E) In the practical subjects of science there should not be any university examination as such examination cannot be a test of the work done by the student in the whole course of his studies. The teacher is the best judge of the efficiency of students in practical work. He should submit a report of the merits of students, along with the practical note-books, to the board of examiners in science. The merits of students will be judged by this board on the basis of this report, and the practical note-books submitted.

LAHIRI, BECHARAM.

(i) Yes.

(ii) Competitive examination and exemplary character.

A lawyer should possess specially good moral character. Students passing the B. Sc. or M. Sc. examination. with science as their special subject should not be allowed to take a law degree.

LAHIRI, GOPAL CHANDRA.

(iii) Certificates of proficiency granted by the authorities of those colleges who are permitted to hold their departmental examinations may be regarded as a sufficient passport for entering the professions—degree examinations in all departments should be held by the University.

LAHIRY, RANOJIT CHANDRA.

(i) It seems very true that teaching is now unduly subordinated to examination. Even in school classes teachers do not generally give sufficient attention to teaching, which is left to be done at home by private teachers. Practically, students of even tender age have little time left after they have prepared their class lessons at home.

(ii) An attempt should be made to reduce the rigidity of the examination system. The success of this attempt mainly depends upon getting qualified teachers. As the number of qualified teachers increases the rigidity of examinations may be proportionally reduced. There may be some subjects of which the medium of instruction would be the vernacular. In these subjects there need be no examination. A certificate of the prescribed course of study should be considered sufficient.

(*a*), (*b*), and (*c*) May be adopted, with the qualification suggested above.

(iii) The more a specific career requires depth of knowledge the less do examinations serve as a test of fitness, and the more a specific career requires the extent of knowledge the more do examinations serve as a test.

For the profession of law examination is scarcely a test; while for administration in the public service examination is the best test.

LANGLEY, G. H.

(i) Undoubtedly.

(ii) (*b*) I agree; at any rate, the teacher should be given much more liberty than he at present possesses, and his knowledge of the student's work during the whole period of study should be considered in awarding degrees.

(iii) When teaching is sound, and examinations honestly and intelligently conducted, the latter should be a fair test of fitness for a specific career. The student who does well is generally a man with ability. But with the most wisely conceived examinations there are always exceptions, nor is it possible so to improve the examination system as to make it a perfect test.

LUCAS, Rev. E. D.

(i) Yes a great deal of validity in the Punjab.

(ii) If all honours and post-graduate teaching were definitely in the hands of the University itself the rest of the course could be committed to the colleges themselves under the safeguards above mentioned.

(iii) Some of the best teachers, in my judgment, are men who would not shine in any examination that could be invented to test their ability to teach. There should be an examination system to test minimum requirements but, beyond that, each profession makes demands upon personality which no examination can ensure.

MACKENZIE, A. H.

(iii) As the system of examination for the licentiate in teaching (L. T.) degree of the Allahabad University differs in character from that of most other university examinations an account of it may help to suggest an answer to the question raised.

The conditions of examination for the L. T. degree have been laid down by the board of studies in teaching. The members of this board are either engaged in the training of teachers, or are indirectly connected with this work. The University has given the board practically a free hand.

The principles which guided the board were as follows :—

(A) The system of examination should ensure as much uniformity as possible in the standard of assessing the work of candidates appearing from different colleges.

(B) It is not possible to devise any external examination which would in itself be a fair test, in practice, of teaching. The examination lesson at its best is given under artificial conditions ; it has been well described as being to the actual work of the class-room what the dress parade is to warfare.

(C) Colleges should have freedom to prescribe their own courses in those subjects in which it is possible for the syllabuses to reflect the individuality or special qualifications of members of the staff, and in those subjects (*e.g.*, nature study) in which variation of the subject matter to suit local conditions is desirable.

(D) In those subjects in which there is general agreement as to the content of courses it is possible for an external examiner to set questions which are a fair test of knowledge and of power to apply it ; and, provided an external examination does not prejudice the teaching and learning it is of value, for it secures public confidence in the award of the degree and gives a college the benefit of the opinion of an examiner who is in a position to compare its work with that of other colleges taking the same course.

The examination is conducted as follows :—

(*1*) *Practical teaching.*

The University appoints two external examiners. These hear each teacher give two lessons ; usually, they hear only a part of each lesson, as there are four or five lessons going on simultaneously, and the examiners move from room to room. The examiners have before them the principal's opinion of each candidate, and a recommendation as to whether the candidate should pass or fail, and, if he passes, in which class (first, second, or third) he should be put. The principal's opinion is based on the records kept by the staff of the candidate's work as a student.

This system has answered well ; the final results have been in agreement with the college records.

MACKENZIE, A. H.—*contd.*

(2) *Special subjects.*

The system of examination is as follows :—

There are optional courses in certain subjects—history, geography, mathematics, physics, chemistry, nature study, and manual training. In these subjects it is necessary to require from students careful practical work throughout the session, as well as knowledge which will show up in an examination. Moreover, the colleges are endeavouring to improve the teaching of these subjects in secondary schools and, with this aim in view, they experiment with changes in method and subject matter. It is essential, therefore, to give the colleges freedom to lay down their own courses in these subjects.

(*a*) Each college is informed in April of the names of the examiners ; the college then forwards to the examiners copies of its detailed syllabuses.

(*b*) The examiners set papers on these syllabuses. Hitherto, this has been easy, as only one college has sent in candidates for examination in special subjects. Should other colleges present candidates it will be necessary to set in each subject a paper which will cover the ground common to all syllabuses and include in it alternative questions according as the syllabuses vary.

(*c*) The question papers are moderated by a board which meets in September. The principals of the two colleges affiliated for the L. T. degree are members of this board.

(*d*) The examination is held in the following April. Along with the answer books of candidates the examiners receive from the principal :—

(i) The candidates' marks in college examinations and copies of the college question papers.

(ii) Note-books and records showing the practical work of the candidates (in the case of manual training the examiner visits the college to inspect the work).

(iii) Notes made by the candidates on the books read by them independently.

(iv) Detailed diaries kept by the candidates of their work (" practical work ", " private reading ", and " lectures attended ") in their special subjects. (These diaries are checked periodically and signed by the principal.)

(v) The principal's opinion of each candidate.

The examiners take the above records into account in deciding a candidate's place in the list.

This system has been in operation for six years and has worked well ; the examination has in no way prejudiced either the teaching or learning, and the results have been in agreement with the college records.

(3) *Examination in the compulsory subjects of the course in theory.*

There are four compulsory written papers :—

(A) Principles of education.
(B) Methods of teaching.
(C) History of education
(D) School management and school hygiene.

The question papers are set by external examiners. As there is general agreement as to what topics should be included in each of these subjects there is little danger of an examiner setting questions which would tend to restrict freedom of teaching ; any danger of their doing so is obviated by the presence on the board of moderators of the principals of the two colleges concerned. There are, however, debatable topics on all the subjects, especially in principles of education and methods of teaching. Candidates have been handicapped by the fact that some examiners strongly held views with which the college professors were not in accord, and which perhaps they had not even discussed with their students. The results in the compulsory papers have not, therefore, always been in agreement with the college records. This difficulty has, to some extent, been met by a recent change in the regulations under which

MACKENZIE, A. H.—*contd.*—MAHALANOBIS, PRASANTA CHANDRA.

candidates will be required to pass only on their aggregate marks in the four subjects and not, as hitherto, in each subject separately. It is hoped that by thus combining the marks obtained by a candidate in all subjects the idiosyncrasies of particular examiners will be neutralised. Personally, I would go further than this. I think that the committee bringing out the results should have before it a statement from the principals, showing the marks gained by candidates in college examinations in each subject of the course, and that this record of the work done by candidates while under training should be consulted by the committee to help it to decide not only cases on the border line between 'pass' and 'fail', but also doubtful cases as to class, *i.e.*, whether a candidate is to be placed in the first, second, or third division. With this modification I think that our system of examination can well serve the purpose of testing a candidate's fitness for the teaching profession. An advantage of giving weight to college records is that it helps to ensure steady work by students throughout their period of training. My experience has been that Indian students, much more than students in England, put off hard work until the examination is within sight; the reason is perhaps the Indian student's more impersonal outlook on life, and probably also the climatic conditions under which he has to study.

MAHALANOBIS, PRASANTA CHANDRA.

(i) Teaching is completely subordinated to the examination even in the highest classes. This is thoroughly unsatisfactory.

(ii) The present rigidity must be reduced. One chief defect is the machine-like uniformity of the present system. A gradual decentralisation, as suggested above, may, by allowing adjustments to local conditions, relieve this to some extent.

(*a*) For the schools the teaching will necessarily be defined by the prescribed examination requirements, at least for some time to come. But, with the growth of "recognition" of class work, it may be expected that teaching will become more and more free.

(*b*) In the constituent colleges greater freedom will necessarily be given to teaching.

(*c*) In the more advanced work a system of *voluntary courses* would probably be the best plan to adopt. It is highly essential that M. A. and M. Sc. teaching should be entirely free. If the appointment of professors has been academically sound then there can be no misapprehensions in leaving the training of students entirely in their hands. For post-graduate work even the examination should not be too closely adjusted to the course as, otherwise, the lectures will become practically "compulsory". In such work absolute academic freedom is desirable.

(iii) For *teachers* a certain amount of training is highly desirable. Such training can, to a great extent, be tested by suitable examinations, but it is very doubtful whether any examination would really ever select the better teachers. In fact, under a too rigid examination system there would be considerable risk of producing a class of teachers whom the complaint that "they are machine-made, and that they are engaged in turning out machine-made scholars, some of whom will in the fullness of time develope into machine-made teachers" would be justified. (Ed. Holmes, quoted by J. Adams in *Evolution of Educational Theory*, page 386). Any centralised system would inevitably lead to this and it is essential that by proper decentralisation and consequent touch with the real life of the people a vital system be evolved.

Training for *administration in the public services* is capable of being more thoroughly tested by examinations than any other profession. It is desirable that systematic Government examinations be instituted for recruitment to the different public services.

MAHASAI, KUMAR KSHITINDRADEB, RAI.

(i) I fully believe in the validity of the criticism that in the existing university system teaching is unduly subordinated to examination as no opportunity is given for independent thinking, which is the very essence of true education. Even in the highest classes of post-graduate studies (not to speak of the lower university classes) there is a regular system of dictating and receiving notes as aids to pass examinations by mere help of memory; post-graduate students are encouraged to 'get up' notes—thus invariably securing an easy pass, to the convenience of the parties concerned, the teachers as well as the students.

In order to put a stop to such a disreputable state of things it may be suggested that post-graduate paper setters should invariably be appointed all from outside the University (with a few honourable exceptions), preferably from England, if feasible, or, in the alternative, from among the best men of the sister universities of India. Graduates fresh from the University smacking of their lecture-rooms with no previous experience in teaching or of the management of the lecture-halls are indiscreetly entrusted with post-graduate teaching, nay, with the very responsible duty of setting and marking M.A. and M.Sc. question and answer papers. Such a strange thing is only possible in the wonderful land of the East, with its many fables and wondrous tales of a multitude of baby prodigies of the Eastern universities.

These are stern facts, I confess, and I may challenge anybody to controvert them. These facts should be disclosed for favour of consideration by the members of the Commission. Facts, when found, will greatly help to arrive at the correct solution of the problem now under consideration, when men like Dr. Sadler, Sir Asutosh, and their illustrious colleagues have graced the University Commission with their presence, under the initiation of our noble and distinguished Viceroy, His Excellency Lord Chelmsford.

I humbly venture to hold that the evils connected with the examination system should, first of all, be remedied; then the other salubrious changes are sure to follow as a necessary consequence. The few following suggestions may be made :—

(A) The names of the examiners may be religiously kept undisclosed—so that no clue may possibly be obtained as to the nature of the questions likely to be set.

(B) The post-graduate paper setters should (in the majority of cases) be selected from England or, if that is not feasible, outside Bengal, in any case.

(C) At least half the number of paper setters of the lower University examinations should be of the sister universities of India.

(D) The paper examiners must not be freshmen of the University, but teachers of at least ten years' standing.

(E) The present system of allotting grace marks in specific cases may altogether be discontinued.

(F) Choice of questions should not be allowed to the examinees in any case, but some hold that alternative questions should be allowed. In case such a view finds favour I should suggest that, so far as different subjects are concerned, questions in one branch or division should not alternate with those in another branch or division. Questions in the same branch or division may alternate. In case questions in different branches alternate the result will be that some of the subjects will be omitted altogether in favour of the easier ones—a state of things not at all desirable.

(G) An examination board like the present board of examiners should be created under the control of Government, independent of the University, and this not only for Bengal, but for the other provinces as well. This will ensure uniformity of tests everywhere, and at all times.

At present, in India, degrees are of varying worth—in some places cheap and in others dear. The proposed board may be given the power to frame standards of test papers suiting the varying needs of different provinces.

(ii) In the present state of educational development in Bengal, no attempt should be made to reduce the rigidity of the present examination system, which

MAHASAI, KUMAR KSHITINDRADEB, RAI—*contd.*—MAHTAB, The Hon'ble Sir BIJAY CHAND.

if relaxed, is sure to lead to disastrous consequences. In view of the fact that the post-graduate regulations contemplate the selection of internal examiners to be made from among the post-graduate teachers (experienced or inexperienced, it does not matter which), in compliance with the letter of the regulations, it is not to be wondered at that in the present system, even in the post-graduate classes, cramming is unduly encouraged and teaching is inordinately subordinated to examinations. A thorough enquiry should, therefore, be made into the present system of post-graduate teaching, as to the antecedents of the lecturers and assistant professors, as to their competence to teach the subjects with which they are entrusted, as to their previous experience in managing big classes, and, finally, to determine whether the present system should continue as it is, or rather be modified, so as to encourage real teaching under a number of very able professors, aided by a band of competent assistant professors and lecturers. Real teaching consists in the encouragement of independent thinking which any and every real university should do. In view of the fact that in the M.L. and M.D. examinations compulsory attendance is not insisted upon by the University it is difficult to understand why the same rule is not observed in the case of the M.A. and M.Sc. examinations thus causing unnecessary hardship to the attending students without any compensating gain. It may, therefore, be suggested that attendance at the M.A. and M.Sc. classes be made optional and that, in two years' time, without attending lectures, any graduate may be permitted to appear in the next higher examination in arts. This rule, I venture to say, is invariably being observed in the English and the Scotch universities without variation. The rules in chapter XXVI of the University Regulations may, accordingly, be modified, and the provision for the delivery of lectures—180 as the minimum number—should, therefore, be omitted altogether. Post-graduate students may be given a certain degree of freedom as they are capable of understanding their own interests thoroughly well. The post-graduate and the law studies should never go together. This is important in view of the fact that, before graduation, honours in two different subjects are not allowed, whereas after graduation, all restrictions are at once removed.

MAHTAB, The Hon'ble Sir BIJAY CHAND.

(i) The criticism that in the existing university system teaching is unduly subordinated to examination is true. There have been some improvements upon the old system, which was far too rigid, but even the present system is not quite up to the mark. Teachers have, no doubt, at present been given some freedom in the choice of courses but, as the results of class examinations are not taken into account, the effect is not as it could be desired. Students generally aim at passing the university examinations without any attempt to acquire a thorough knowledge of the prescribed subjects and teachers generally fix their attention on university questions and make the same selection of courses almost everywhere, as the questions of the University are generally limited to some definite courses.

Further advancement is possible on this line if the results of class examinations are counted as suggested in my answer to question 5 (iii).

(ii) (*b*) Teachers should be given a maximum of freedom in the choice of courses and the class examinations should be adjusted to the courses given by individual teachers, but these examinations should further be supplemented by university examinations on the general knowledge of the subjects up to some definite standards fixed in respect of each degree or diploma. The selection of subjects and the determination of standards must rest with the University as suggested in my answer to question 5 (iii).

(iii) For the legal profession I think a general knowledge of English and logic is required such as that reached by the present B.A. standard, and a special knowledge of

MAHTAB, The Hon'ble Sir BIJAY CHAND—*contd.*—MAITRA, AKSHAY KUMAR—MAITRA, GOPAL CHANDRA—MAITRA, HERAMBACHANDRA.

jurisprudence and principles of equity is particularly necessary. Besides these, Hindu Law, Muhammadan Law, the laws of evidence, contract, conveyance, and some other civil and criminal laws should be studied. The numerous codes that are at present prescribed for law students do not always appear to be necessary.

For a teacher's profession the test of fitness should be a general knowledge of English and the vernacular languages, a fair knowledge of the history and geography of the world, knowledge of arithmetic, and a thorough knowledge of the special subject which one professes to teach, as well as his ways of explaining lessons, and his general disposition and character to be determined by a practical examination.

MAITRA, AKSHAY KUMAR.

(i) Teaching under the existing system is necessarily subordinated to examination. Greater efforts are naturally made to secure a good cramming. This tendency has filtered down even to the schools in which the boys are taught from the beginning under a system known as the "lecture system." This has made it almost imperative to have private tutors to coach the boys at home to obtain a good result in the examinations at the sacrifice of adequate teaching. Too many examinations and exercises leave little time for actual teaching. Class examinations commence from the beginning of sessions before teaching is fairly commenced in the school.

(ii) An attempt should be made to relax all undue rigidity of examinations, which should test only a general proficiency with a view to discover how much training had been actually assimilated. Teaching should be properly defined and it should relate to the country and its practical needs. A thorough knowledge of the English language and of the country is essential. A graduate of Bengal knowing little or nothing about his country can be of little use with but an imperfect knowledge of English for service to, and advancement of, his motherland.

MAITRA, GOPAL CHANDRA.

(i) Yes; the criticism is true to some extent.

(ii) It is desirable that the rigidity of the examination system should be reduced in some directions, but the plans suggested do not seem to be quite practicable under the existing circumstances of the Calcutta University.

(iii) For the professions of medicine, law, teaching, engineering, and administration in the public service the examinations, supplemented by a reasonable period of practical training, would be the best test. But, where such training cannot be had, the examination may be taken to be a rough test of fitness.

MAITRA, HERAMBACHANDRA.

(i) and (ii) With regard to the criticism that "teaching is unduly subordinated to examination" and the desire so often—and, I think, rightly—expressed, that the rigidity of the examination system may be reduced, I beg to suggest, first, that an attempt should be made to give credit to those students who have been prevented by illness or other unavoidable circumstances from appearing at university examinations, for the work done by them at college, on their producing certificates of proficiency from their professors, with answer papers submitted by them at class examinations. Secondly, the existing system of the

allotment of marks to each particular question on a subject, while it should be generally adhered to, ought to be relaxed in the case of candidates who have displayed exceptional merit in answering some of the questions. They ought to be given more marks than are assigned to the questions answered by them; but this should be subject to sanction by the board of examiners.

(*b*) Examinations ought not to be adjusted to the courses of lectures given by individual teachers. But colleges should be encouraged to provide for the teaching of some subjects outside the courses prescribed by the University.

(iii) Examinations, theoretical and practical, ought to serve as a sufficient test of fitness for the professions of medicine, law, teaching, and engineering. They ought to be adapted to that purpose. They ought also to be held to qualify students for admission to the public service, except when knowledge of a highly technical character, that cannot be properly included in a university course, is required. In the latter case, a period of service on probation, and the passing of an examination after it, may be required to supplement the education given by the University.

MAJUMDAR, PANCHANAN.

(i) There is.

(ii) Yes; an attempt should be made.

(*a*) and (*c*). The use made of the examinations may be varied in the manner indicated

(iii) In law and engineering examinations may serve as the sole test of fitness. In medicine, also, they may serve as the chief, though not the sole, test of fitness. In teaching, agriculture, and the other subjects the mere passing of an examination will not make a man fit, but practical experience will be necessary. I do not know of any examination of the University relating to administration in the public service.

MAJUMDAR, RAMESH CHANDRA.

(i) The teaching here is, no doubt, subordinated to a great degree to examination, as must be the case wherever the "examination" system prevails. I do not think the case is worse here than in English and German universities.

(ii) (*a*) Yes.
(*b*) No; except in post-graduate classes.
(*c*) No

(iii) The minimum qualifications should be ascertained by University examinations. Afterwards, various special tests may be applied.

MAJUMDER, NARENDRAKUMAR.

(i) Validity in the criticism, which is, to a great extent, exaggerated, is more apparent than real. Unless some method is devised for "teaching" students without "examination" teaching must, to a certain extent, be subordinated to examination.

There are two parties in connection with teaching—the teachers and the taught. Teachers cannot but teach the "subject" prescribed for examination, only they ought to have a wide outlook (which will generally depend upon the capacity of the individual teacher), and they must not confine themselves only to the books recommended.

MAJUMDER, NARENDRAKUMAR—*contd.*—MALLIK, Dr. D. N.—MASOOD, Syed Ross.

A proper understanding of the subject, and reproduction of the same in a foreign language in a limited time, are quite different things and, so long as the medium of education is other than the mother tongue, students cannot but commit to memory the matter of their subject with an ultimate view to examination; but a necessary condition of teaching must be that students understand the subject taught. So long as English remains the medium of instruction there is no way of preventing students from committing to memory, for matriculation students cannot have a sufficient command of the English language to reproduce what they learn in their own words. As regards the higher examinations, say the B.A. and B.Sc. (honours) and M.A. and M.Sc. examinations in mathematics, I do not know that any criticism has been offered to the same effect. But, here also, simply understanding the subject without committing to memory certain parts of it is never a sufficient condition for good reproduction within the limited time in the examination-hall, although cramming (committing to memory without understanding) would be impossible in this case.

(ii) An attempt should be made to reduce the rigidity of the examination system.

(*a*) Yes; but in the M.A. and M.Sc. examinations questions ought to be framed in such a way as to bring out the full power of criticism of the student, showing that he has formed an independent opinion upon the subject.

(*b*) The abuses would far outweigh any advantages that might accrue from the system.

(*c*) This should be introduced under proper safeguards.

MALLIK, Dr. D. N.

(i) Yes.

(ii) (*a*) The course should be simplified.

(*b*) Not desirable nor practicable; teachers should learn to interpret the scope of the examination, about which they often make mistakes. This will be secured if teachers are more in touch with the University than they are at present.

(*c*) Yes; but there must be some test somewhere. The college and school authorities may be left to test the work, and the result may be included in the certificates for admission.

(A) Course in drawing.

(B) History and geography for those who do not take up these subjects.

(C) Practical work in those examinations in which a practical test is difficult to apply.

(D) Handwriting and dictation.

(E) Conversation, etc.

(iii) In all cases examinations may serve as tests of fitness.

Only, these examinations should be simple, but thorough, for a pass and very searching for honours.

MASOOD, Syed Ross.

(ii) (*a*) I am strongly of opinion that the minimum amount of the subject to be taught should be defined by the University.

(*b*) The selection of books, etc., and the mode of the teaching of the subject should be left entirely to the teacher. Examination questions should be so framed as to ascertain how much the boy knows about his subject, rather than how much he knows about the subject as put down in certain given books.

MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN—MAZUMDAR, C. H.—McDOUGALL, Miss ELEANOR.

MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN.

(i) I do think that the existing university system of teaching is unduly subordinated to examinations. Both teachers, as well as students, pay greater attention to grinding for examination than to sound and adequate training.

(ii) I do not consider the examinations, particularly the matriculation and the intermediate, to be at all stiff. On the contrary, they are such as to place really meritorious students at considerable disadvantage. Examinations should be directed more towards testing merit than towards obtaining mechanical answers far below the average.

(iii) I think the University should also provide certain courses of study for commerce, agriculture, and industry, including shorthand writing, typewriting, and précis writing as optional subjects for the matriculation examination. These may make mediocre students better fitted for a career in life best suited to their tastes and inclinations. I must not be understood by this to advocate the school final examination. I consider the provisions for law, medicine, and engineering, as far as the studies go, to be sufficient and adequate. In this connection, I may add, though the matter does not appertain to the University, that the pleadership examination held under the auspices of the high court is now an anachronism and should be abolished so as to secure a uniformly high level for the district Bars and to maintain the dignity of the profession.

The University examinations afford sufficient test of fitness for appointment in most of the public services. But the misfortune is that the University tests are seldom recognised in the lower grades of the services. If a census were taken of the various public offices it would be found that a very small percentage of the graduates and undergraduates of the University is absorbed by them, most of the appointments being filled up by those who have not even passed the matriculation examination.

MAZUMDAR, C. H.

(i) There is validity; the examination should afford sufficient evidence that a sound general education has been received, but should in no way interfere with, or injuriously affect, education. Cramming, which still obtains, more or less, should be effectively checked. Many useful things are not taught simply because they are not included in the University syllabus, *e.g.*, drawing and music. For the matriculation and intermediate examinations specialisation of subjects seems to be a little too early. A matriculate on entering the University is expected to know something of every important thing.

McDOUGALL, Miss ELEANOR.

(i) Students' studies are certainly vitiated to an alarming extent by the ever present dread of the examination. I believe that many teachers earnestly try to counteract this; but they are insensibly forced by the pressure of the class to give greater importance to things that will tell in the examination. Students make a careful study of the general tenor of the examination papers of previous years and form a very shrewd idea of the kind of thing that will be asked. If a teacher diverges from this many students withdraw their attention.

Too much value is set upon the result of the examination. The father of one of our students wrote to us:—"I do not desire education for my daughter, but a degree". I do not see any way of remedying this.

McDOUGALL, Miss ELEANOR—*contd.*—MITRA, KHAGENDRA N.—MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur.

(ii) (*b*) I do not think that this would be possible.

(*c*) I fear that students would designedly pay no attention to these subjects, and teachers would be tempted to neglect them. Of course, in a small class an inspiring teacher can generally awaken a temporary interest, but this cannot hold its own against the competition of studies more profitable in examination. Moreover many students, even if interested, would feel it their duty to concentrate all their energies on success in examinations.

MITRA, KHAGENDRA N.

(iii) Students passing the intermediate examination should be deemed fit for a specific career; that is, after passing the intermediate examination they may take medicine, law, engineering, or other professional studies.

MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur.

(i) There is some truth in the criticism that in the existing university system teaching is unduly subordinated to examination. But, frequency of examinations may be avoided only when due provision as to the number and efficiency of the teaching staff is made in schools and colleges. Only first-rate teachers, such as those referred to in my answer to question 1, should be left with a maximum freedom, and examinations may be adjusted to the courses given by such teachers.

If highly efficient teachers are appointed in large numbers the practice of holding the I.A. and I.Sc. examinations may be discontinued and students, after a course of study, for four years after admission to the University, may be allowed to appear at the examinations for conferring B.A. and B.Sc. degrees.

(ii) I suggest that one of the methods of reducing the rigidity of the present system of examination should be the following:—

(*a*) If a student gets plucked in any university examination he should be exempted from appearing at a subsequent examination in the subjects in which he passed at the previous examination.

(*b*) and (*c*) Teachers should be given some freedom but, at the same time, there must be a fixed standard and prescribed examination requirements in ordinary cases.

(iii) *Profession of law.*—Study should not be confined to graduates only. In cases of undergraduates there should be a special examination to test the fitness for admission to the B. L. classes. Such admission should be as to the general knowledge of an advanced character in the English language, including the power of speaking and writing good English, the vernacular, history of different countries, especially that of England and India, philosophy, logic, political economy, political philosophy, and, if possible, elementary surveying. This examination should not be lower in standard than the B. A. examination. After passing such an examination, he should be admitted to the B. L. classes. The present system of law examination may be continued but, after passing the final examination in law, every student must learn the practical business of the court. He should, therefore, be called upon to attend the district courts and, occasionally, the High Court, for at least two years, in order to learn the ways in which original suits and appeals are conducted and how witnesses are examined and cross-examined. During this period he should be required to study the law reports and, if possible, some principles of English law. I should call this a probationary period. After the expiry of this period an examination, both oral and in writing, should be held by the judges and experienced lawyers of the High Court and the district courts.

Oral examinations are necessary in order to test the fitness of the student as to his ability in arguing appeals and conducting suits. Oral examinations should be held by at least three examiners sitting together. After all this the B.L. degree should be conferred upon him. The course of study should, therefore, be five or six years, as is the case with the other special branches of study, such as medicine and engineering.

In order to carry out the aforesaid suggestions it will be necessary to establish law classes at the headquarters of each district. These law classes should be subordinate to the Central Law College of Calcutta and should be guided by the rules framed by the authorities of that college. There is a special test, *viz.*, the chamber examinations for admission of vakils to the High Court. Such examinations are held by the judges of the High Court and I have nothing to say with regard to those examinations, but I would suggest that a person who has not practised as a district court pleader for a certain number of years should not be admitted to the chamber examination of the High Court.

MITRA, RAM CHARAN.

(i) The existing University does not teach directly, but it does so indirectly by prescribing the syllabus and holding periodical examinations up to the B. A. and B.Sc. standards. Latterly, it has undertaken to teach post-graduate students.

(ii) The rigidity of the examinations should not be reduced, but alternative questions from the same parts of the subjects should be set to give the examinees some freedom. Examinations of unsuccessful candidates may be arranged to take place at intervals of six months, instead of a year as at present.

(iii) After passing the required examinations prescribed by the University a candidate for a specific career should be apprenticed to one more experienced in the profession for a prescribed period and, upon his producing a certificate of fitness from his superior and on passing a *viva voce* examination held by the University authorities, may obtain from the University a certificate of fitness for a particular career.

MITTER, Dr. DWARKANATH.

(i) There is validity in the criticism that in the existing university system teaching is unduly subordinated to examination.

(ii) Speaking as a lawyer I think that the present system of requiring a university degree in law as a condition precedent for admission to the higher branches of the legal profession ought to continue. The courses of study prescribed by the University for the degree in law are not only conducive to the technical training of a lawyer, but give one a general acquaintance with the broader problems of jurisprudence.

MITTER, Dr. PROFULLA CHANDRA.

(i) In an affiliating university like Calcutta, with many of its colleges at distant centres, a fixed syllabus is necessary in order that there may be some sort of uniformity in the standard of teaching. As the syllabus serves as a guide also to the examiners a teacher may be tempted to be guided entirely by the syllabus as to what he should teach. Though teaching may in this way be now and then subordinated to examination good teachers are by no means rare who regard the syllabus as the absolute minimum required and who are prompted by a genuine desire of doing their best by their pupils.

MITTER, Dr. PROFULLA CHANDRA—*contd.*—MOHAMMAD, Dr. WALI—MUKERJEE, ADHAR CHANDRA.

A welcome change in the examination system would be to allow all post-graduate students to substitute a piece of research work in lieu of a part, or the whole, of the written examination for the M.A. or M.Sc. degree. There should be no written examinations for the doctorate.

MOHAMMAD, Dr. WALI.

(i) It is, undoubtedly, true that in the existing university system teaching is unduly subordinated to examinations. Teachers have to teach in accordance with the courses and the curricula laid down by the several boards of studies of which they are not necessarily members, and students have to submit to examination by those who are not their teachers. If the teacher is original or tries to keep himself up to date, he finds that his students cannot pass the examinations. Hence he is compelled, often against his wish, to prepare students for the examinations. He often sinks to the level of a coach or a crammer and ceases to be a teacher. Moreover, the boards of studies and boards of examiners are often controlled by small cliques which seldom elect or co-opt one who does not share their views. Unfortunately, there is a tendency for some of the academic offices to become hereditary. I should like to mention here a case which speaks for itself. The syllabus of courses of study in physics was prescribed for the B.Sc. degree of the Allahabad University in 1892 and this syllabus is in force at the present day. The board of studies in physics has met year after year during the last quarter of a century to ponder over it and pronounce the oracular words, "No change"—and this "when a year is more pregnant with discovery than a 100 years used to be". Where is to be found a teacher who can dare ignore the syllabus, and where is to be found student who will care to learn things which are not to be asked in the examination ?

(ii) In a *teaching university* the hardship of the examination system can be easily reduced. The teachers of a particular subject should form (with perhaps a few additions) the board of studies in that subject, and should also constitute the boards of examiners. Power to co-opt experts to a certain limit should be given. This will result in a due subordination of examination to teaching and not of teaching to examination. The teacher, if competent and trustworthy, and there should be no room for incompetent and untrustworthy teachers in the University, is the best person to work out the details of teaching and examinations.

In a *federal university* the difficulties become great because there are several teachers working in isolated colleges, having little or no chance of coming in contact with one another or with the university teachers. It will be necessary to arrange for better co-operation between them by bringing them often together in some place and appointing them by rotation members of the boards of studies or boards of examiners. This will remove many of the evils found in the existing system.

(iii) The University should lay down a definite standard to be attained by its students, contemplating a specific career. The employers, be they Government or the public, could then either accept the University test or impose their own tests to suit the exigencies of each case

MUKERJEE, ADHAR CHANDRA.

(i) Yes.

(ii) (*a*) Yes.
(*b*) This is possible to a certain extent only in the higher examinations.
(*c*) This should be done; in correlated subjects attendance at lectures should be made obligatory, but no university examination should be insisted upon.

MUKERJEE, Dr. ADITYANATH.

(i) The undue subordination of teaching to examination is a necessary evil in all systems of public examinations. All that we can do is to reduce it to a minimum and to counteract its evil effects.

Some of the syllabuses, being highly elaborate and comprehensive, as is the case with the intermediate logic syllabus or the B.A. pass psychology syllabus, students are naturally driven to 'short-cuts'. The remedy lies in simplifying and shortening the courses and in reducing the number of subjects which a candidate is required to take up. For purposes of sound education the study of a subject should be intensive, rather than extensive, at least in the earlier stages. This should not be confused with 'specialisation', which should be aimed at only in the later stages. If education aims at drawing out the latent powers of the mind, and training students in habits of close and consistent thinking, the purpose is better served if the operations are restricted to a small area of a subject. This alone can secure a *close application and discipline* of the understanding, whereas a rapid, and consequently superficial, knowledge of a much larger area is apt to beget a sort of dilettantism and pedantry which is fatal to the true scholarly spirit. Education in a subject must not be confounded with the mere communication of a varied and necessarily undigested mass of information about the different topics into which a subject is usually divided. A smaller amount is better assimilated and gives better mental nourishment. We should be content with so equipping the mind of the youth as to enable him in future to explore and conquer new fields of knowledge, and should not be at all anxious to cram it with as much information as the prescribed period would allow.

If the above principle be accepted several curricula should have to be simplified. Besides the vernaculars and English (which must be compulsory subjects up to the B.A. stage) I would have for the B.A. degree examination only one major subject (corresponding to the existing honours course), and only one minor subject. The knowledge of the former will be tested by a university examination, while, in the case of the latter, the candidate will be merely required to produce a certificate from his professor that he has attended a minimum percentage of lectures and acquired a fair amount of proficiency as tested by the periodical college examinations. The minor subject should be allied to the major, and should comprise only an elementary course.

(ii) (*a*) I would prefer this, provided that the rigidity of the examination system be relaxed somewhat on lines suggested in my answer to question 5.

(*b*) The chief objection here is that sufficient uniformity of standard could not be maintained if individual teachers were left with the degree of freedom suggested.

(*c*) Is desirable in the case of the minor subjects in which a formal university examination may be dispensed with [kindly see my reply to (i) above].

(iii) In the cases of medicine and engineering practical courses and practical training are at present provided by the colleges, and insisted upon by the University.

In the cases of law and teaching due importance is likewise attached to the practical side of the training.

Whether examinations may serve as a test of fitness for a specific career depends upon the character of the examinations. If the schemes of examinations be wisely conceived, securing adequate training in theory and practice, I do not see any objection to them, nor do I see what satisfactory substitute may be devised for them.

In this country those who, for purposes of admission to the public services, would replace the system of examination by a system of nominations are generally in sympathy with people who are unable or unwilling to face the test of examinations. For obvious reasons they prefer admission through the back-door.

MUKERJEE, BIJOY GOPAL—MUKERJEE, RADHAKAMAL—MUKHERJEE, B.

MUKERJEE, BIJOY GOPAL.

(i) Teaching is, to a certain extent, subordinated to examination.
(ii) This point has been dealt with in my reply to question 5.
(iii) So far as the profession of teaching is concerned university examinations should be considered as the only test of fitness.

MUKERJEE, RADHAKAMAL.

(i) In the existing system teaching is unduly subordinated to examination.
(ii) The rigidity of the examination system should be reduced. A plan like the following may be found useful:—

(*a*) In the case of candidates for the B.A. and M.A. degrees a thorough and comprehensive examination, covering the entire field of a particular subject, or group of related subjects, will be supplemented by a thesis submitted.

(*b*) In the case of candidates for the M.A. degree the teacher will be left with a large degree of freedom, and the examination will be adjusted to the course given by him. The teacher will be associated with an external examiner in his test of the candidate's general ability shown both by his thesis and answers.

(*c*) In the case of I.A. and I.Sc. students there will be no comprehensive examinations. There will be "compartment examinations" (as they are called in the Punjab University) in subjects completed in a single year. Those who pass some "compartment examinations", but cannot go through the entire four years' course for a comprehensive examination for the B.A. or B.Sc. degrees at the close, will receive a certificate to that effect from the University.

MUKHERJEE, B.

(i) To some extent the criticism is justified—especially in the matriculation and the intermediate courses. The defect of the present system is best illustrated by Rev. Garfield Williams. I quote from his pamphlet, "The Indian Student":—

"His parents send him to the University to pass one or two examinations. These examinations are to be passed in order to make it possible for him to obtain a higher salary. The moment he passes his examinations he has to get some remunerative work and pay his parents back for the money expended upon him. Scholars are not manufactured that way—nay, more than that, for perhaps you say scholars are born, not made; even a born scholar has no chance for growth under such a system . . . In Calcutta the work of the student is sheer 'grind'. The acquisition of good notes for lectures is the first essential for him, and the professor who gives good clear-cut notes so that a man can dispense with any text-book, is the popular professor. And for two reasons: first of all, these notes save the expense of buying text-books and, then, of course, they help the boy to get through the examination. A most important thing is to have good friends in other colleges. That is a reason why it is well for two boys of the same village to go to different colleges because then they can the more easily "swop" notes. . . . It is a very rare thing for a student to have money enough to buy more than one of the suggested books in a given subject for examination. He learns by heart one book and the notes of lectures of two or three of the favourite professors in Calcutta. There is many a man, for that matter, who has got through his examinations without a text-book of any kind to help him simply by committing to memory volumes of lecture notes." (Pages 9 to 12.)

(ii) Such an attempt to reduce the rigidity of the examination system is desirable though it would be difficult to say which of the three methods stated should be adopted.

MUKHERJEE, JNANENDRANATH.

(i) The criticism has some elements of truth for undergraduate training. The teaching of science subjects, again, is not subordinated to examination to the same extent as in arts subjects. Elaborate notes are sometimes regularly dictated in the class in the form of answers to questions.

(ii) The reduction of the rigour of the examination system will be nothing short of a boon to the people of the province.

MUKHERJI, PANCHANANDAS.

(i) So long as there are syllabuses and prescribed text-books, teaching is bound, to some extent, to be subordinated to examination. I cannot say, however, that it is *unduly* subordinated to examination. On the contrary, I would say learning (by students) is subordinated to examination; I do not know why—but I find students always seeking for short cuts: they want to obtain the highest examination results with the minimum amount of reading.

(ii) Yes.

(*a*) Yes.
(*b*) This is suited to the B.A. honours and M.A. examinations only.
(*c*) Yes; this may be attempted.

MUKHOPADHYAYA, Dr. SYAMADAS.

(i) I do not think that the criticism is altogether just. Where a lengthy course has to be covered, as is not infrequently the case, teachers look upon the question papers as defining the syllabus to a certain extent and teach accordingly. As the immediate motive of a student is to pass an examination the examination is, naturally, more important to him than the cultural benefit he incidentally derives. Examinations are a necessary evil, and they cannot be dispensed with entirely.

(ii) That every attempt should be made to reduce the rigidity of the system of examinations without reducing their value as tests of capacity cannot be denied.

(*a*) and (*c*) I would assent to these suggestions generally.
(*b*) I would assent to this only in the case of advanced teaching.

NAIK, K. G.

(i) Teaching generally is not subordinated to examination to a great extent. But, when examiners put in questions which are doubtful, and which they themselves can hardly solve in the given time, the teaching is perforce driven in the line of subordination to examination (*vide* Calcutta University B. Sc. honours chemistry paper, 1911, a question on the summary of the last twenty years' work on crystalline structure and chemical composition). Instead of attempting to find out what the student does not know examiners should try to find out how much of a subject the student knows and how deep he can go in the broad questions set to him.

NAIK, K. G.—*contd.*—NANDI, MATHURA KANTA—NANDY, The Hon'ble Maharajah Sir MANINDRA CHANDRA—NANJUNDAYYA, H. V.

(ii) Yes.

(*a*) Is much preferable, for, as long as examinations are to be retained, it is most advisable to set out a certain minimum standard.

(*b*) It is at present totally ruinous to the healthy development of our education.

(*c*) The practical examinations should be made less uncertain. At least 50 per cent of the marks should be attached to the record of the student's work in the laboratory, as countersigned by his professor, at all the science examinations, beginning from the intermediate onwards till the degree examination.

(iii) Selection by examination is much better than autocratic selection.

NANDI, MATHURA KANTA.

(i) Yes ; there is.

(ii) (*a*) and (*c*) I would combine these. In some subjects the teaching might be defined by prescribed examination requirements, and in some other subjects, or sections of a subject, there may not be any formal university examination, but the knowledge may be tested informally by the authorities of the college or school.

(*b*) Will create difficulties in the matter of organisation and detailed schemes.

NANDY, The Hon'ble Maharajah SIR MANINDRA CHANDRA.

(i) I think the existing university system of teaching necessarily becomes unduly subordinated to examination.

(ii) Yes.

(*a*), (*b*), (*c*) All might be tried for the purpose.

NANJUNDAYYA, H. V.

(ii) (*a*) In subjects which do not require practical work in a large degree, such as languages, history, philosophy, and economics, it would be enough to regulate teaching according to examination requirements. The required freedom is given sufficiently by the method now coming more and more into vogue of setting a large number of elective questions.

(*b*) The suggested method would apply to the practical and scientific subjects (*e.g.*, chemistry, physics, engineering); but it would be a necessary condition of success that both teachers and examiners should be men of mark in their different departments.

(*c*) This is quite feasible.

(iii) The attention given to the subject of law varies in various universities. Perhaps Madras is the only place where there is a separate law college with adequate time allotted to work during the regular day hours. The mere taking of the degree is not considered sufficient to entitle one to practise the profession, and there is an additional examination in the law of procedure and pleadings, and an apprenticeship with a practising lawyer for a definite period. If the subjects covering the whole field (including procedure, etc.), are comprised in the regular prescribed University course, the examination for the degree will be quite sufficient as a test of fitness for becoming a legal practitioner. The beginner will have time and opportunity enough to learn the practical part of his work during the early period of his career, when only the simpler cases are likely to be entrusted to him. As for the judicial service, practice at the Bar would be the best

apprenticeship, and this, where necessary, may be supplemented by a competitive examination, such as has been prescribed lately in Mysore.

For those who aspire to be teachers in colleges the possession of high degrees ought to be a sufficient passport without the need of a special training in the methods, etc., of teaching The posts, however, should be always on probation, so that if the probationers do not evince zeal and ability, they may be discharged. For teachers in secondary and lower stages the training and the degree of teaching should be essential; and the examination for the teacher's degree ought to be so contrived as to be a sufficient test of fitness.

The rules now usually followed for public service seem to be reasonably adequate, *e.g.*, passing the higher examinations, and serve as a test of fitness for posts on a graduated scale: and various special tests are held. However, it would be a great improvement if some training in certain branches is required of aspirants for ordinary clerkships also, such as drafting, recording, etc. Such training is sometimes given in commercial schools. University arts examinations should be taken as only a test of general education required for entry to such service.

NEOGI, Dr. P.

(i) There is no gainsaying the fact that teaching in schools and colleges is largely subordinated to examination. This is due principally to two reasons, *viz.* :—

(A) Teachers generally do not think it necessary to teach anything which is not required for examination purposes.

(B) Defects in the system of examinations and syllabuses. For instance, *re* question papers set in English—one book of Shakespeare or Byron is prescribed in the I.A. examination, but questions are asked about Shakespeare's style of writing, the beauties and defects of his writings, etc. Students not having read all Shakespeare's plays naturally commit to memory "key books" which provide such information ready-made.

On the whole, however, I would retain the present system, but would suggest that *every five years the University should appoint a committee to report on what improvements in the examinations are necessary, and also what changes are required in the syllabuses.*

North Bengal Zamindars' Association, Rangpur.

(iii) The matriculation examination should be a sufficient test of fitness for the profession of medicine, of law, of engineering, etc., and for services in the lower grade.

OUNG, Maung MAY.

(i) So far as the law classes in the Rangoon College are concerned teaching is not unduly subordinated to examination. In my judgment, the present B. L. examination of the Calcutta University is an excellent test of fitness for a legal career.

PAL, The Hon'ble Rai RADHA CHARAN, Bahadur.

(i) As I have explained I am emphatically of opinion that under the existing system teaching is wholly dominated by examinations, and this is probably the root cause of students not getting the full benefits of a university career. Anything which would tend to make reading free and agreeable should be encouraged. Study for the sake of passing a mechanical system of examination cannot but be distasteful, and certainly does not generate a craving for knowledge for its own sake.

PAL, The Hon'ble Rai RADHA CHARAN, Bahadur—*contd.*—PARANJPYE, The Hon'ble Mr. R. P.

(ii) (*b*) More freedom given to the teacher will be a move in the right direction, but the teacher must be of sufficient calibre. If such teachers were obtainable I would indeed go so far as to advocate a system under which absolute uniformity of courses or standards need not be insisted upon. In the absence of these, examinations common to a number of colleges will, no doubt, be a difficulty, though, in practice, it would probably be found that colleges could be grouped for purposes of examination, and the results would not be satisfactory if the pupils under examination were given a very ample choice of questions selected to suit candidates from institutions working under slightly different curricula. It would probably be found most satisfactory that each college should examine its own pupils, the questions having been previously submitted to and finally settled by a board appointed by the University, in whose hands the general control of the examination should be placed. Each college should, on the result of its own examination, be required to submit a list of students considered deserving of a degree. I see no reason why the system I advocate should not be applied, at all events as regards the intermediate examination, even if it should be considered unsuitable for degree examinations.

PARANJPYE, The Hon'ble Mr. R. P.

(i) There is some validity in the suggestion that teaching is subordinated to examination. But the evil is not peculiar to India. The existence of coaches at Cambridge, who profess to pull students through various examinations with the minimum of knowledge, the vast energy wasted in the production of annotations, and, occasionally, the productions of various aids to memory, often of a ridiculous nature, are symptoms of the same evil there, and I suppose similar symptoms can be detected elsewhere. It is only a few of the better class of honours students that look more to learning than to the passing of examinations. But even in their case, inattention to subjects that don't pay, a minute study of the idiosyncrasies of the examiners, and other examination tips are not uncommon. The poll student is merely dominated by his wish to pass by hook or by crook. If suitable opportunities and careers are opened to students in India for higher work I am sure students will be forthcoming.

(ii) (*a*) For the vast majority of students the teaching will have to be well defined by the University. The examinations should be arranged, as far as possible, with a view to ascertaining whether a student is well taught, but I am afraid it is not possible to defeat the crammers completely under any system of examinations that can be devised.

(*b*) The teacher of the lower classes and of the poll students should be asked to work up to the prescribed syllabus, enjoying such freedom as he can get within these limits, though a good teacher can always find opportunities to exercise his own judgment and interest the student. The freedom should be greater in the case of the advanced and honours students and, in the beginning, this may be recognised by a greater range of questions and subjects in which some choice may be given so that special proficiency in some special branches may not handicap its possessor.

(*c*) As mentioned in answer to a former question this has not proved a success in Bombay, and I don't think it is likely to be practicable elsewhere in the case of affiliating universities. Where the degree-giving institution is a single one this may be possible to a certain extent; and an experiment can be very well made in the new unitary universities like Benares.

(iii) In some professions experience will be gained by actual practice of it after the satisfaction of the usual examination tests, as in law, medicine, teaching. In others, some apprenticeship will be necessary. In others, again, as in administration in the public service, probation with various departmental examinations as at present, will be sufficient.

RAHIM, The Hon'ble Mr. Justice ABDUR—RAY, Dr. BIDHAN CHANDRA.

RAHIM, The Hon'ble Mr. Justice ABDUR.

(i) & (ii) Teaching is unduly subordinated to examinations in Bengal and elsewhere. This is mainly due to the teachers not having sufficient confidence in themselves to pursue a subject independently of books, and partly to the habit which prevails, but which I am glad to find is now being gradually abandoned, of prescribing books, instead of subjects, for the examinations. Until teachers are available who can be said to be authorities in their subjects, capable of making independent exposition and researches, it would be safer as a rule to leave students to the guidance of recognised text-books, teachers helping with explanations and elucidations.

(*a*), (*b*), and (*c*) I would not support these unless the present level of teachers is considerably raised.

(iii) I should say some kind of examination is useful and necessary in every department mentioned. But it has to be recognised that, whatever the nature of the examination, a period of apprenticeship by which a young man is gradually introduced to the actual practice of his calling or business must, generally speaking, intervene before he can with good results embark upon it. In law the examination should aim at testing the student's grasp of the principles, and his knowledge of the important rules, of law, his ability to apply them to concrete cases, and his power of clear and succinct expression.

RAY, Dr. BIDHAN CHANDRA.

(i) The teaching in the University is carried out with a view to obtain the greatest amount of success for students at the examination.

(ii) The ideal would be achieved when we allow the teacher a maximum degree of freedom from control of the examination system. Before a teacher has had time to develope his subject in the process of teaching, even before the student has had time to assimilate the teaching properly, the student has to leave the teacher and resort to cramming and strain his nerves to get through the examination.

(*a*) In all arts subjects, especially in the examinations up to the B.A. pass course, a certain degree of uniformity in the standard value of the degrees conferred can only be maintained if the teaching be defined by prescribed examination requirements. Even under such conditions, however, three conditions must be satisfied by such examination :—

(A) They should be educationally useful.

(B) The examinations should not interrupt, as far as possible, the regular course of study in a particular subject.

(C) The question set should aim at finding out what the student knows, and not exactly what he does not know.

(*b*) In all scientific subjects (in the medical examinations) it is necessary to supplement written by oral and practical examination. Under such conditions it is possible and desirable to allow the maximum of freedom to teachers; and, so long as internal examiners are co-opted to external examiners, the examination could easily be adjusted to the courses adopted by teachers. Then the examiners can justly gauge the stock of knowledge of the student, apart from his ability to answer specified questions.

(*c*) In the highest course of study, *e.g.*, Ph.D., M.D., etc., no formal university examination can possibly test the student's attainments. His capacity to profit by the teaching and guidance would be shown by his original work on the subject in the form of a thesis.

(iii) The ordinary degree qualifying the student to practise medicine should be bestowed after a formal examination. But this student should further produce certificates from his teacher to show that he is a fit person to practise medicine. If the student is successful at the examination he gains confidence in himself as to his fitness to practise medicine. The teacher's certificate, on the other hand, would show that he (the teacher) has confidence in the capacity and fitness of the student to practise the art.

RAY, JOGES CHANDRA.

(i) Yes.

(ii) (*a*) For mere graduation.

(*b*) For the honours and M.A. and M.Sc. examination. There should be internal and external examiners, the teachers forming the internal and outsiders, who are also teachers, the external. The class marks obtained by students and recorded by their teachers should be taken into account while awarding degrees.

(iii) For admission into the public service competitive examinations, if adopted for all services, would be desirable. If not adopted for all services the standard of qualification, as tested by the university examinations, should be proportionate to the emoluments. There is no reason why a graduate should receive Rs. 40 a month if he is appointed a teacher, while another Rs. 250 a month if appointed in the provincial service.

RAY, MANMATHANATH.

(i) I have partly answered this question in my answer to question 1. In the present system both pupils and teachers are tempted to concentrate their attention not so much upon genuine study, as upon the questions likely to be set by the examiners. The systematisation of the University courses is inevitable, to a very large extent, in the lower examinations at which a large number of candidates appear, and uniformity is desirable.

(ii) An attempt should certainly be made to reduce the rigidity of the examination system. Examination is a means and it should, as such, be subordinated to the end, *viz.*, right education.

This is quite practicable in the highest examinations, if:—

(A) freedom and latitude of teaching are allowed;

(B) examination is conducted mainly by those who teach

(C) success in the examination is made to depend as much upon the answers furnished by the candidate, as on steady work during the period of academic training; and

(D) the choice of questions to be answered is left to the candidate and, no explicit assignment of marks having been made to the different questions, the due valuation of the answers is left to the examiner. It is by these means that the qualitative estimate may be truly recognised. At the same time, it may be desirable, in order that a right tradition may be preserved and handed down in these matters—a tradition which may be of interest to teachers to know—that the examiner should draw up reports which should be accessible to the teacher by publication. It may be interesting to refer, in this connection, to what the vice-chancellor said in his convocation address of 1883 with regard to the success of the first two lady graduates:—"I heard from one of the examiners that, though their answers in the subject were *not framed so as to secure the highest number of marks*, the papers showed an *originality*, a *thoroughness*, and a *real comprehension* of the subject which

gave him a high opinion of the intellectual power of the writers". This state of things has continued very much the same till to-day; steps in the right direction have only recently been taken in the M.A. and M.Sc. classes under the new post-graduate scheme. As has been pointed out in my answer to question 1, the examination should be conducted in such a way as to distinguish the essential from the inessential, and should test the parts of knowledge that are truly valuable, and not trivial or recondite details. At the same time, the introduction of the German or the American system of conferring degrees on the decision solely of professors without the intervention of outside examiners is not desirable here at the present time.

(*a*) Of course, to a large extent, and especially in the cases of the lower examinations, the teaching should be defined by prescribed examination requirements.

(*b*) The possibility in the case of the highest examinations for freedom of the choice of courses on the part of teachers has already been pointed out in my answer to question 2

(*c*) There does not appear to be any necessity for the supply of indirect and secondary motives by formal examinations in the cases of collateral or subordinate subjects, *e.g.*:—

(A) Mathematics, physics and chemistry.
(B) Pure and applied mathematics.
(C) Sanskrit and philology.
(D) History and economics.

(iii) Examination is certainly a test of fitness in each of these cases.

RAY, Raja PRAMADA NATH.

(i) Yes.

(ii) (*a*) Yes.

(*b*) If teachers are allowed a maximum of freedom, and examinations are adjusted to the courses given by individual teachers, there will be a lot of confusion in examination, therefore, it is not desirable.

(*c*) Some unimportant subjects may be left out of the University examination.

RAY, SARAT CHANDRA.

(i) Quite so; teaching is unduly subordinated to examination—students do not, as a rule, study for the sake of acquiring knowledge, but for passing the examination. Teachers do not take care to see whether their students acquire knowledge, but their only endeavour is to make their students successfully pass the examination.

(ii) The rigidity of the examination system should be reduced.

(*a*) The teaching might be defined by syllabus.

(*b*) No.

(*c*) In all cases the test should be University examination, together with the certificate of teachers.

(iii) General examination, together with the certificates given by teachers, may serve as a test of fitness for a specific career. The present method of examination should be changed. By the present method the memory of the examinee is more tested than his knowledge.

In examining students of law, who wish to carry on the legal profession, they should be supplied with all necessary books in the examination hall, and be asked to explain and discuss general points of law in its various branches. In this way his knowledge in the subject may be tested.

RAY, SATIS CHANDRA—REYAZUDDIN, SYED, Quazi—RICHARDSON, THOMAS H.—ROY, MUNINDRANATH.

RAY, SATIS CHANDRA.

(i) and (ii) It is, doubtless, true that teaching is unduly subordinated to examination. But in the present condition of most of the secondary schools and colleges it would not be wise to adopt a general policy of leaving a portion of the examination work to teachers. In well-conducted institutions, with an efficient staff, the requirements of examination in some subjects may be satisfied by certificates from teachers in those subjects if they are of recognised standing and capacity; for this purpose a record of the students' class work might be kept; but I would not go further.

(iii) As regards the limits of examinations to test the fitness of young men for a specific career I would abolish the system which encourages the acceptance of B.A. and B.Sc. degrees as qualifications for admission into any profession, except high appointments in the public service and the education service, and would introduce separate examinations for testing the fitness for all other careers. (By "teaching" in the question I understand the science of teaching, and not the education service.)

To this end, I would raise the standard of the matriculation examination and would insist upon a more stringent test in languages.

I would not permit any student to read for university degrees in more than one subject at the same time, *e.g.*, a student of law should not read medicine, nor should a student of arts or science read law or medicine.

REYAZUDDIN, SYED, Quazi.

(i) In my judgment, there is no validity in the criticism that teaching is unduly subordinated to examination.

(ii) I hold that there should be *no attempt* to reduce the rigidity of the examination system.

RICHARDSON, THOMAS H.

(iii) In engineering examination is no test of fitness. Examination only indicates that it is worth while trying to teach one man his work more than another. A man who cannot pass his examinations is not likely to be much use as an engineer, but one who passes first may be equally useless.

ROY, MUNINDRANATH.

(i) It is generally true that under the existing system undue importance is given to passing examinations, and everything is learnt with the ultimate object of mastering the answers to some stock, and so-called important, questions in each book.

(ii) The examination system may be made a fair and real test of instruction, by altering the nature of the questions and the present method of allotting marks for each small question. Questions should be broad and the whole paper should be marked in round numbers on the whole body of answers:—

(*a*) Examination may be held on languages and literature, by prescribed examination methods.

(*b*) In history and geography (particularly in the latter subject) in matriculation; and in chemistry and physics the teacher might be allowed sufficient freedom.

ROY, MUNINDRANATH—*contd.*—ROY, The Hon'ble Babu SURENDRA NATH—SAHA, MEGHNAD—SAHAY, Rai Bahadur BHAGVATI.

(iii) Oral tests in *medicine, e.g.* :—

(*a*) Materia medica sometimes proves defective on account of unequal questions asked to each student.

(*b*) In law there need be no such university examination, as now.

ROY, The Hon'ble Babu SURENDRA NATH.

(i) Yes.

(ii) An attempt should be made to reduce the rigidity of the examination system.

(*a*) Yes.

(*b*) Yes.

(*c*) Yes.

I think in the professions of law and teaching, as well as in administration in the public service, examinations may serve as a test of fitness, but not so in those of medicines, engineering, agriculture, commerce, and industry.

SAHA, MEGHNAD.

(ii) I think that in certain respects the existing system is extremely rigid, and proper steps should be taken to reduce the rigidity. I would touch upon a single point to which I have been able to give some amount of thought.

At present, if a candidate happens to fail in a particular subject, only, say by not more than two or three marks, he is required to wait another full academic year before he is allowed to sit for the examination. He may secure quite good marks in other subjects, but that makes no difference. Not only that, if the student happens to be an undergraduate he is compelled to join a college, go through the same system of lectures, and keep the inevitable percentage. On very rare occasions is he allowed to appear as a non-collegiate student. This rule is generally executed with the severity of the laws of the Medes and Persians. I know from personal knowledge of several instances the dire effect which the system produces on its unfortunate victims—dejected in mind and spirits, struggling with poverty and ill-health for retrieving lost honour, and a good name—the ultimate result is often fagging of the brain, and complete breakdown of health. Some leniency should be shown to these students. They should be required to appear in those subjects only in which they failed by a narrow margin, and should be allowed free option in the matter of joining a college, or appearing as non-collegiate students.

SAHAY, Rai Bahadur BHAGVATI.

(i) I do not think there is any validity in this criticism *so far as it relates to examination as it should be.* Teaching without a test is apt to be inefficient. There is, however, a good deal of truth in the criticism so far as *examination is actually conducted.* They teach just what they consider needed for the examination. It does not, therefore, follow that if there were no examination they would teach more or more efficiently. The reverse will be the case; if examinations were abolished they would teach less and less efficiently. In my opinion, since the fad that examination is inimical to good teaching has gathered strength, the quality of teaching has been going down annually. Compare those who passed the entrance of the sixties or eighties with the matriculates of these days and you will find a vast difference. One who passed the entrance was as good as a B.A. of these days so far as his knowledge of English was concerned. Those who have not known the entrance of the old days might compare the course in English

for the entrance examination of the seventies and the questions set at that examination with the course and the questions in English for the matriculation examination and mark the difference. It will be an evil day when examinations are abolished.

(ii) I am in favour of a more rigid, thorough, and searching examination. It is the only practical means of both ensuring and testing efficient teaching.

SANYAL, NISIKANTA.

(i) Yes.

(ii) (*a*) and (*c*) Yes, I would suggest a combination for history.

(iii) Examination, combined with a certificate of practical work done, would be a better test—as a general principle.

SAPRU, The Hon'ble Dr. TEJ BAHADUR.

(i) There is no doubt to my mind that in the existing university system teaching is unduly subordinated to examination. Even in advanced classes the vice of dictating notes not wholly with a view to helping the students in understanding the subject which the teacher is supposed to be teaching, but mainly with a view to providing them with short-cuts for success in the examination is rampant. Twenty-five years ago, when I was a student, I was a victim of this system, and now that my sons are reading in colleges I find that the vice has descended to the second generation also. I have noticed that the notes of the teachers, as also the catechisms and other poisonous stuff of that class, take the place of the text-books, and it is not seldom the case that students even do not care to look into the books and confine themselves to this sort of fictitious aid only. It is supposed that the standard has been raised very much in recent years because the number of text-books prescribed has been increased, but I very seriously doubt whether a substantial portion of the curriculum is taught or read by the students. I am not prepared to endorse the view that education now is much more efficient than it was fifteen or twenty years ago I myself have been an examiner in law for the last fifteen or twenty years ago. it has been my painful experience that very few of the students are able to express themselves in even decent and correct English. A few years ago I examined some candidates for the master of laws examination, which is the highest examination in my university, and I had to submit a report about the examinees. With regard to one of them (I think the candidates were only 2 or 3) I had to say "has given me bad law and worse English." The knowledge of most of the students is very often ill-digested, the range of reading is very limited, and the power of expression very undeveloped. The law students whom I have to examine. are always graduates in arts or science. My experience, therefore, leads me to maintain that the teaching which they receive in the arts classes is of a very perfunctory character. I frequently come into contact in private life with students, and I have noticed that in a vast majority of cases they do not even know the names of English classical authors or the leading exponents of modern thought. I should, at the same time, guard myself against being understood to hold the teachers wholly responsible for this state of things. I think it is possible to remedy this defect to a certain extent by providing the students with better intellectual environment. Besides, it seems to me that not a little of the present unsatisfactory conditions of the intellectual equipment of our young men is due to the fact that they know that without a degree—good, bad, or indifferent—no career is open to them either in any profession or in the public services.

(ii) I am, therefore, of opinion that the rigidity of the examination system should be reduced.

(*b*) I should leave the teacher, provided he is a really competent teacher, a maximum of freedom to adjust the examination to the courses given by him. This would, however, entail a considerable elaboration of the machinery for examinations and would necessitate more expenditure, but I think the experiment is worth trying.

(*c*) Probably in certain scientific subjects it might be possible to dispense with the test by a formal university examination.

(iii) I may add that in regard to law it seems to me that there is considerable room for development in India. There is no doubt that we had, and still have, very eminent practical lawyers in India, but the number of legal scholars has been limited. Too much stress is laid in the teaching of law upon dry-as-dust subjects—statutes and acts—while I should introduce students to interesting books of standard authors who deal more with principles than with details. Again, I should also like to try the experiment of teaching certain branches of law with the help of case law, as is done in some American universities. I have taught some students in that way myself and the result has been wholly satisfactory to my mind. It is also doubtful to my mind whether the duration of teaching in law is of sufficient length. In the Allahabad University the course extends over two years. I prefer a three-years' course. I attach also great importance to the *viva voce* examination, and my experience as an examiner has been that I can have a more correct measure of the student's capacity when he is face to face with me than by merely examining his written answers.

I may be permitted to suggest that the provision of an honours course for the better class of students should be insisted upon. The question has arisen in the Allahabad University, but has not yet been solved. No doubt, this would mean the strengthening of the staff in some colleges, but it seems to me that in the best interests of education this must be done. At present, each student is required to take up three subjects for his B.A. examination. I think that, although it is supposed to broaden his culture, it really gives him very little grasp of the subjects he has got to study. If our secondary schools could be improved and better equipped I would do away with the intermediate examination absolutely and give a three-years' training to students in one subject only. This would, in my judgment, enable them to have a more thorough knowledge of at least one subject. But, with the secondary schools as they are, I do not think that the change advocated by me can be given effect to in its entirety. I would, however, reduce the number of subjects from three to two even under the present conditions.

SARKAR, AKSHAYKUMAR.

(i) I very strongly feel that teaching is being unduly subordinated to examination. The teacher's success depends upon the number of students he has made to pass. I know that some school authorities have taken teachers to task for failing to pass a high percentage of students. Students themselves say that they come not to learn, but to pass the examination. Teachers also give way to this view very often. The guardians of students generally endorse the view as they send the boys to the University with an ulterior motive. The examination system, in spite of wholesome regulations and prominent headlines in the question papers, "Answers should be given in your own words", is such that the teaching cannot but be unduly subordinated to examination.

It would be interesting to collect statistics for ascertaining how many of those who have passed, or are about to pass, the B.A. examination in history have gone through, or even purchased, Elphinstone's *History of India*, any good history on the British period, or all the three books prescribed on the Elizabethan period;

SARKAR, AKSHAYKUMAR—*contd.*—SARKAR, BEJOY KUMAR—SARKAR, GOPAL CHANDRA.

and also how many editions of "Printed Notes on History" are current in the market, and how many copies of them are annually sold. I am of opinion that less than 10 per cent. of the B.A. candidates go through the books they are required to study and for this they fare no worse than those who (as they say) foolishly take the trouble of really going through so many books. My experience as an examiner in I.A. history entitles me to say that those who have mastered the notes are classed as to result with those few who have completely mastered their subject. Examinations have failed to take the estimate of knowledge not only of the majority of the candidates, but even of those who are placed very high.

(ii) Yes.

(*a*) Yes.

(*b*) The teacher should be given greater freedom, but the standard of knowledge possessed by the student should be tested by a uniform and universal method with regard to all the colleges.

(*c*) Yes, the teacher's test should be recognised.

SARKAR, BEJOY KUMAR.

(i) Yes, teaching is unduly subordinated to examination under the existing system, so much so that even in the higher classes (B. A. and M. A.) the part played by the teacher is mainly to prepare students for the university examinations. A teacher is generally considered to be "good" when he dictates systematised "notes". Students seldom read the prescribed or recommended text-books, and depend entirely upon the class notes or the notes available in the market. Time spent to stimulate thinking or encourage further reading on a problem is not, and cannot, as a rule, be appreciated by students under the existing system of examination.

(*a*) Teaching has to be defined, as at present, by prescribed examination requirements. This system is naturally mechanical, and it is here that the greatest difficulty arises as to the way of solving the examination problem.

(ii) (*b*) The evil may be mitigated by allowing the teacher a maximum of freedom in the courses given by him, and adjusting the examinations accordingly. This may, however, be done only where the teaching is centralised—I mean in the post-graduate classes as at present organised. But how to do it in the under-graduate departments, where the teaching is decentralised? To keep the uniformity of standard and tests this method is inapplicable where teaching is carried on at different centres and under varying conditions.

(*c*) Study for its own sake, not for any (formal) examination, is indeed a great ideal; and in some particular subjects, or sections of a subject, this ideal may be followed. This was the ideal of the ancient Hindu *tol* system, which produced some of the greatest original thinkers in India. This is, again, possible only when the teacher himself is the (informal) examiner of his students and is able to confer titles or degrees as marks of distinction. How to achieve this in a territorial university where the organisation is quite different from a local *tol*? Nothing can, however, be said against a scheme, even under the existing university organisation, which provides for this "education for its own sake" in addition to the subjects in which there will be formal university examinations. Even this title is desirable if it should not be an undue encroachment upon the time and leisure of students.

SARKAR, GOPAL CHANDRA.

(i) The criticism is only too true that under the existing system teaching is "unduly subordinated to examination".

SARKAR, GOPAL CHANDRA—*contd.*—SARKAR, KALIPADA—SASTRI, KOKILESWAR, Vidyaratna.

(ii) (*a*) and (*c*) My answer is in the affirmative.

(*c*) My suggestion is that teachers might be allowed the maximum of freedom in teaching; but the examinations should not be regulated by the courses taught by every individual professor.

(iii) Success at the University examinations is not necessarily a sure test of fitness for a particular career such as has been mentioned. But those who achieve such success must continue to be regarded as better qualified than others. I do not think there are any strong grounds for a modification of the existing system and for prescribing other tests of eligibility for beginning a career in the profession of law, medicine, engineering, or agriculture. Such a test may be necessary for those who want to follow industrial pursuits requiring special technical knowledge which is not imparted in schools and colleges.

SARKAR, KALIPADA.

(i) No; my idea is this. Periodical examinations are necessary. *If so*, the nature of the teaching will always depend, to some extent, upon the nature of the examinations. Make the examinations sound and searching the teaching will also be thorough and satisfactory. So there is nothing particular about the Calcutta University in this respect The complaint is that the standard of the examinations has been lowered This should be raised

(ii) The reduction I would propose is that if a candidate fail in any subject he should be re-examined in that subject only and in no other.

(*a*) Yes.

(*b*) No; there will be no uniformity under this proposal. The standard of efficiency will vary with individual teachers. Who will fix the standard? The experience of the school final examination in the case of middle schools is very disappointing

(*c*) No; worse results would ensue than those mentioned in connection with middle schools

(iii) These examinations may be generally limited to theoretical and book knowledge. The physical, moral, and practical sides of candidates cannot be properly tested by written examinations For example, in pedagogy, mere academical distinction should not suffice Even ability in class management and a knowledge of the devices of teaching are not enough The temper and habits of the candidate and his morals are important factors to be considered. No university or departmental examination will be of any avail in these respects.

SASTRI, KOKILESWAR, Vidyaratna.

(i) In the existing university system teaching is unduly subordinated to examination. For the purpose of removing the evil influence now exercised by examination on the system of teaching the following changes may be considered:—

(A) Questions should cover the whole field of study and should give candidates a wide range of selection. For instance, about 50 or 60 questions should be set; and, of these, a candidate should be required to answer, say, 5 or 6 only.

(B) If a candidate be recommended by proper persons to be fit for a particular examination he should be allowed to appear at that examination without passing the earlier examination or examinations, if any.

(C) If the system of examining the answers of candidates by allotment of marks be not replaced by a better system then, in allotting marks, the candidates' insight into, and grasp of, their subjects should be more valued than a mere enumeration of points or the cataloguing of facts.

SASTRI, Rai RAJENDRA CHANDRA, Bahadur—SAYIED, ABDULLAH ABU—Scottish Churches College Senatus, Calcutta.

SASTRI, Rai RAJENDRA CHANDRA, Bahadur.

(i) I consider that there is a great deal of truth in the criticism that in the existing university system teaching is unduly subordinated to examination. Speaking generally, the examination influences the standard of teaching in most of the subjects. If the examination in a particular subject is stiff and searching teachers and pupils pay greater attention to that subject. If it is not, the subject is neglected. To illustrate my meaning I may say that there was a time when examiners in Sanskrit insisted upon a high standard of scholarship from candidates and the result was that greater attention was paid by teachers and pupils to questions of grammar and composition than is the case now, when the examination is, speaking generally, more intended to test a candidate's knowledge of English and ability in translating Sanskrit into decent English than his Sanskrit scholarship and ability in composing in that language. The number of pass marks allotted to a particular subject also influences the character of the teaching in that subject. There are cases where candidates consider it a mere waste of time to read a subject when the mark assigned to that subject is so low as not to affect appreciably the general result of the examination.

(ii) (*a*), (*b*), & (*c*) While admitting that the rigidity of the examination system stands in need of being relaxed it is not very easy to say how that end can be best secured. As regards the suggestions under the heads specified they are perhaps too vague and general in character to be of much practical use. The suggestion which proposes to leave individual teachers with a maximum of freedom is perhaps open to objection, teachers who may be thought worthy of being entrusted with such freedom being not easily available in this country.

SAYIED, ABDULLAH ABU.

(i) Undesirable though it is it cannot be denied that teaching at present is unduly subordinated to examinations, as students come to colleges mostly with the object of getting through examinations successfully. At present, university diplomas and certificates constitute the main passport for entering different callings in life, and hosts of students flock to colleges with an undefined aim depending upon whatever chances a college career would bring to him by way of success in university examinations, rather than with any genuine desire for knowledge.

(ii) (*b*) As explained above, in answer to question 2, teachers have very little freedom in the present system of examinations, cut and dried by the dictates of the University regulations. This rigidity of the examination system should be removed, but it is undesirable that examinations in any subject should be on courses given by individual teachers as this would inevitably lead to a variation of standard in the same university. An improvement would be effected if examinations in a subject are left to the teachers of colleges of the same university mostly, upon whom it should be incumbent to meet and discuss the lines to be adopted in teaching their subject from year to year. This process would admit of introducing the contemplated improvements gradually—the teaching of *subject*, rather than of a prescribed course, should be aimed at.

Scottish Churches College Senatus, Calcutta.

(i) We consider that under the present university system, teaching is inevitably and unduly subordinated to examination. In common estimation the only specific value of any teaching is that it prepares directly for some examination.

Scottish Churches College Senatus, Calcutta—*contd.*—SEAL, Dr. BRAJENDRANATH.

(ii) The rigidity of the examination system may very profitably be reduced.

(*b*) As suggested in a previous answer we consider that more satisfactory results will be obtained by leaving the teacher with a maximum of freedom in the treatment of a course of study and in examination.

(*c*) As we have already suggested the position could be adequately safeguarded and students of the University co ordinated if the examination papers, set by the internal examiner of the college on the work we had actually done in class, were moderated by two external examiners, who should be co-examiners of the answer papers. Where colleges would, thus, have more adequate power, teaching might be given in subjects in which no formal test by university examination would be demanded but, obviously, such a practice could not extend far except in the highest branches of study

SEAL, Dr. BRAJENDRANATH.

I now turn to the consideration of the university examinations (questions 9 and 10). The questions turn on the relation between teaching and examination. I will therefore begin with general reflections on the theory of examination in relation to teaching. I will next point out the improvements we have attempted in our examinations as judged by this standard, and the improvements we still need. I will then go on to discuss the etiology of cram in Bengal, after which I will address myself to the specific questions.

Neither teaching nor examination is an end in itself, both exist for an ulterior end, which might be described in either of two ways :—first, as the conservation, improvement, and transmission of the culture-tradition in a society ; or, second, as the *discovery of the individual*, helping him to self-expression as a free person within the corporate social personality. In the ideal (or normal ?) condition both teaching and examination would be subordinated to the ultimate end, and the question of the one being subordinated to the other would have no meaning. An examination serves as a measure of value and a means of standardisation and, as men are normally constituted in the social state, adds the stimulus of social reward or recognition and of emulation to what may be called the more natural, primary, and relevant motives and interests of education. Again, as teachers are not necessarily perfect, and at any rate it is agreed on all hands that their pupils have more than the average share of mortal imperfections, an examination is needed to find out whether the pupils are learning to work, and to work the right thing (self-expression included) in the right way. A good examination may, therefore, be a help and a supplement, if not also a guide to the teaching. No doubt, examination has its abuses, but so has teaching. Both, as practised to-day in the learned world, are rough and-ready 'mass-methods'; and, without further progress in experimental psychology and experimental sociology, neither the theory of education nor the theory of examination can be placed on a scientific basis, and the actual practices must remain what they are—rules of thumb, or empirical recipes. Among the unsettled questions relating to the theory of examination are such vital points as the following :—

(A) The nature, meaning, and component elements of the fitness which an examination is supposed to test or measure ; first, in a single subject ; secondly, in a number of correlated subjects ; and, thirdly, in a number of unrelated (or, as is often the case, negatively correlated) subjects.

(B) The nature of the curve of mental capacity, general or particular, and the correlations of mental capacities and interests as throwing light on the real value of examination curricula.

(C) The nature of the curve of marks, its relation to the curve of capacity, and the dependence of this relation on the psychology of the examiner.

(D) The questions of chance and error.

(E) The question of the timing of an examination in relation to the course of instruction and discipline of *interim* examinations to test and ensure continuous work, and of compartmental examinations *versus* a single final examination.

SEAL, Dr. BRAJENDRANATH —*contd.*

(F) The duration of an examination, and the time-scheme, in relation to fatigue.
(G) The extent of allowable option to choice of questions, and of compensation as between subject and subject
(H) The relative place of written, practical, and oral examinations, of external and internal examiners, of primary and secondary motives like love of knowledge and emulation
(I) The reorientation of examinations in general, with reference to vital developments at puberty or adolescence
(J) Last, though not least, the theory and art of questioning !

In the meantime, it may be noticed that under the regulations of 1906 we have moved towards a right ordering of our examinations by providing that the questions should be so framed as to encourage good habits of work and teaching, and discourage unintelligent memorising; that the examiners in giving marks shall consider whether the answers indicate an intelligent appreciation of the subject; that the examiners shall always allow some choice of questions; that, in the lower examinations, the paper setters shall not be among those who have actually taught for the examinations, and that in the post-graduate examinations the reverse shall be the case, but that the teachers as internal examiners shall be associated with competent external examiners; that the papers shall, wherever practicable, be set by two members of the board in consultation, and lastly — what is a considerable improvement in view of the chances and wide margin of error in all examinations—that by means of what have been called compensation marks some consideration shall be allowed to candidates failing in one single subject who show high proficiency in another subject or in the aggregate.

Our examinations, however, are still far from perfect. The main faults are :—

(1) That the marking is too mechanical, being of the nature of scores for points made, instead of an estimate of the answers as integral wholes—which tends to encourage memorising
(2) That the mechanical aggregate of marks is hardly checked or corrected by the appreciation of a paper as a whole with reference to general information or intelligence, co-ordination or sequence of ideas, power of expression, individuality, or other criteria, though the regulations provide for this correction
(3) That, owing to the idiosyncrasies or unequated personal equations of a multitude of examiners, the margin of error and of chance for success in an examination as well for ranking, are apt to be somewhat wider than if the examination were more compact and homogeneous.

And on certain important points there is a well-marked line of cleavage. How far errors of spelling, grammar, or idiom in the candidate's English should detract from the value of an otherwise good answer (or paper) in mathematics, chemistry, or physics, or for that matter in logic, economics, history, or philosophy, or again in Sanskrit, Arabic, or Persian, is with us the great frontier question, and, until there is the delimitation of a 'scientific' frontier, or of spheres of influence among the half-dozen major claimants, we must continue to have an unsolved Chinese puzzle, a six-power problem, on our hands. But we are taking steps to correct these defects and uncertainties, and on the whole, the examinations here are certainly not less successful—if anything they are more—than in many other universities with a longer history than ours. It is sufficient to state that our pass and honours men, and even our 'failed' candidates, fare well as a rule, after their kind and measure, in the examinations of foreign universities, *e.g.*, in the tripos and other degree examinations, and for doctorates in science or philosophy of justly renowned centres of learning and research, as well as in the engineering, medical, and other professional (or vocational) examinations. This concurrent testimony of the learned world supplies a practical test of the value of a Calcutta University certificate (and education, finished and half-finished) and is making itself too patent all the world over to be explained away by interested clamour or unreasoning prejudice playing the rôle of the candid critic.

Our real difficulty lies much deeper. To base a national system of education (as opposed to class education) on a foreign medium of instruction and examination is not a

SEAL, Dr. BRAJENDRANATH—*contd.*

very natural procedure, and the marvel is that Bengalis (and Bengali educators) have, without the aid of miscegenation or foreign plantations in their midst, succeeded so far in this untoward business that the critic cannot make up his mind whether to twit them for being good apes or bad bunglers. Still, a great deal of the unhealthy cram that exists in our preparation for examination, and of the passive receptivity of our learning, is due to this inexorable fact. When you present a pistol to the candidate's head (or headpiece) and bid him stand and deliver, in a trice, he must keep himself primed for the occasion with the only coin you will accept, though it should be of a foreign mintage and currency.

This matter of cram, as it is practised by Indians, requires a closer examination than it has yet received. In the first place, let us banish all cant about cram. There is place for a healthy intelligent cram, *i.e.*, for a readily available store of information concentrated on a particular point or topic or for a particular occasion—a place for this, both in scholastic training and examination, and in the actual arena of life and its contests or trials, professional or otherwise. And repetition and habit enter into all learning Secondly, imitation and repetition are the essentials in learning a language, the mother tongue included; in the acquisition of a foreign language this is prominently noticed; as for acquiring powers of expression in a foreign language a very good method is the memorising and recitation (with the proper emotional tone and imaginative colouring) of standard passages (and apt phrases), giving way in the end to reminiscent associations as well as 'after-images' of speech, and rhythms and tunes in the brain. Thirdly, any excesses of verbal memory among a people practised for fifty generations in learning *sutras* and voluminous commentaries by rote and transmitting them orally [and, be it noted, counting among their number some of the subtlest dialecticians (*Naiyaikas*) the world has ever known.] cannot mean anything so unhealthy or noxious as such developments would, among a people of a different tradition, the English stock, for example. The father of the new logic in Bengal is said to have imported the contraband science from Mithila by a feat of memory! The Bengali Hindu's genius for verbalisms, just as much as the Madrassi Hindu's sense of number and *Shatavadhanam*, is a natural phenomenon, which it is idle to praise or blame; at their best, these traits produce first-class orators and major poets, and mathematicians of the first order, if they are lucky enough to escape the university grind-mill.

Now, discounting all this, there remains a kind of unhealthy cram which is peculiar to our schools and colleges. Where it exists its essence is the learning (not necessarily by heart) of abstract formulæ, empty symbols, skeleton histories, without sensing, visualisation, concrete imagining, assent of understanding, or attitude of will. So far as this is the case the Indian boy 'moves about in worlds not realised'. It is not merely the language of his instruction, of which he is the victim from his infancy; the world that lies at his feet is, in some important respects, not the world of the school or college teaching, and the world of his reading, in its scenes and situations, alike natural and social, is to him, in some of its aspects, a world of shadows, he is Plato's cave-dweller! Mental hybridity, a confusion of mental strains, with accompanying sterility, tends to be produced by a vicious system like this, and would be produced among stocks less stable and fixed, less true to type, or with less power of cultural resistance than the Indian. Presently, this unassimilated matter will be digested, and organised into living tissue, and a new strain will be added, as the Moghul-Persian strain was formerly, to the composite cultural radicle of the Indian people. They err who fancy that India roused from the slumber of ages by the invading cavalcade looks for a moment, and in disdain turns to sleep again. Nay, she digests, not disdains, and if she sleeps, hers is the sleep of her own *boa*, the sleep of digestion, or the sleep of her *Padma-nabha Brahma*, on the primeval deep, the sleep of creation!

Turning now to the motives and interests that actuate our college students, they may be said to be as follows:—

(*a*) Desire for higher education or learning, with the respectibility that learning confers, in accordance with the immemorial tradition of the East, in the land of Mandarins and of Brahmins alike.

SEAL, Dr. BRAJENDRANATH—*contd.*

(*b*) Equipment for a career or for earning one's livelihood, though the openings are unusually restricted in Bengal at the present day.

(*c*) The stimulus of reward and recogniton, of competition and emulation.

(*d*) Intellectual curiosity and love of knowledge for its own sake.

Whether primary or secondary they are all natural, and, in any broad view of the human mind, legitimate and healthy, interests. Different minds and temperaments will feel their force in unequal degrees, but it is sufficient for social health that the social composition be not unduly deficient in any one of these ingredients It is not correct to say that Bengal suffers from any want of balance or proportion in these interests.

The real question is whether there is any dispostion among candidates or among teachers to make a show of results in examinations by mechanical aids or tricks, or by so-called short-cuts which have no cultural value or perhaps only a negative one. I must point out that our conditions are favourable to the growth of unhealthy practices in this direction. Our English text-books often emphasise the exclusively national and local (sometimes even the insular) aspects of English literature and history, which are least intelligible to an oriental people. In this sense, the eighteenth century classics of English prose and poetry, especially the literature of court or coffee-house, of balls and 'routs,' to which we are so partial, are more alien to the Bengali than the literature of the romantic, neo-romantic, and transcendental movements of the nineteenth century, or the realistic movements of to-day Connected with this is the penchant for prescribing the minced meat of letters and epistles, immortal trifles, *hors d'œuvres*, but impossibly flat and trivial to the Indian in their obscure minutiæ. Ponderous Miltonic and Shakespearean criticism takes precedence of Milton and Shakespeare themselves. Lastly, in imitation of the classical drill, our classically trained teachers started the practice of giving word for word synonyms and paraphrases of the English text; habitually committing 'verbicide,' or verbiage, and clipping the wings of the poets' winged words, an offence which, in any well-ordered seat of learning, should be made as severely punishable as clipping His Majesty's coin! The rendering of classical English into its Bengali equivalent, as of Greek text into English, would be a just and legitimate exercise, but what with the teacher's ignorance of Bengali, and with the tabooing of it in the class-room, a sane exegesis had never the ghost of a chance. Once the dictation of synonym and paraphrase in English was begun the evil practice spread to other subjects, and the soil was very hospitable to this noxious weed. In a few cases, there may be some justification for dictated notes, as when the text is far too difficult by reason of its style or allusiveness, and should not have been set at all; or where the teacher gives a full résumé of the highest and best that is known or thought in a subject, and the original sources, owing to our poor library provision or facilities, are inaccessible to the student; but the outstanding fact is that the first and most urgent educational reform we stand in need of to-day is the sweeping away to the dustbin (the limbo would be too poetical a receptacle) of the cribs and cram books, the paper books and notebooks, with which the student arms himself for the fateful encounter in the examination-hall. The University makes a point of showing its severe displeasure against the purveyors of cram (and 'cream') in publications coming to its notice, but finds itself powerless to punish the 'dictators' of the class-room. Cribs and crammers spring up like weeds in every garden of learning, but, in the cultivation of an exotic, the weeds sometimes threaten to choke the crops and run the plantation on their own behalf!

The 'reign' of cram is 'absolute' in a subject like history, and for various reasons. For one thing, our history courses have been very badly designed, though here, more than elsewhere, we ought to have proceeded with deliberation and care. The meeting-place of two civilisations (or their arena) ought to make it her first and most vital business to study their physiognomy and their record, their evolution, trend, and goal. The history of social, economic, political *institutions* (and constitutions), the history of peoples, the history of culture (and cultures), ought to be her first study if she is to play her part in the making of that history. And this is the more necessary inasmuch as Hindu India has been sadly wanting in the historic consciousness. Greece and Rome, Mediæval Europe, the Arabs, the Chinese, have each contributed an original and independent concept of

SEAL, Dr. BRAJENDRANATH *-contd.*

history (historical writing), but Hindu India developed neither chronicle, nor memoir, nor statigraphy (to be more correct she had statigraphy, as we know from the *Si-yu-ki* but this is lost), neither chronological list nor campaign record, and certainly no historic art or dramaturgy; at best, she had only a historic mythogony and a historic tradition in the *Puranas*, with some dynastic records and the rudiments of historic biography. She was dazed by the contemplation of cosmic eternity and missed the historic procession the historic eternity deploying before her eyes. But India has done one thing, she has preserved more material for culture history in her half-dozen main literatures than all the other countries put together (China excepted); and history teaching in India to-day, building on the Indian temperament, should have grounded itself on the history of culture and civilisation, of peoples and their institutions, in the East and West alike on modern scientific lines. But we have given the go-by to geography, to ethnology and sociology; we have neglected to tap their inexhaustible sources lying at our feet, wells that never run dry; and, in the end, we make the understanding of history in any modern sense impossible to our Indian youths. Our undergraduates are treated in the class-room to Athenian and Roman constitutions (on those scraps of paper), and to heroic careers and campaigns and treaties (also on cheap paper), and they regularly swallow this paper currency by the yard (or the furlong), outdoing the Indian juggler and the Indian boa in this feat of swallowing, and as regularly bring it up again, without requiring any dose of tartar emetic, in the examination hall. Could anything more miserable be imagined? But we are resolved to change all this, and one of the best things proposed recently is the institution of a new M. A. course in Indian history and culture, which will provide for documentary study (on a linguistic basis) for all, as well as for *practical training* in historical research in the fields of epigraphy, numismatics, iconography, and other branches of archæology, for those who choose. We are also designing an honours course in history suited to the special requirements and characteristics of our Indian youths, instead of committing the elementary blunder of copying wholesale historical syllabuses of countries with other traditions, in other situations, and with a other outlook! We are also taking steps to combat the acknowledged evils (including those of teaching and examination) in the lower courses, which must serve as a foundation for the higher studies.

Finally, our students are victims of a vicious habit of reading their text-books (or their paper books) again and again, regularly going their rounds through English, history, and classics, classics, history, and English, like sentinels on duty, or rather going round and round like the mill-wheel in the pond! This takes the zest out of their study, and the elasticity out of their minds. Varied (and, if need be, rapid) readings in and about a subject for the sake of general ideas and information are at a discount. All *play* of mind and imagination labours under suspicion of heresy and, as regards our religious confession I may add that our teachers and examiners for the most part belong to one most orthodox (Eastern) Church!

(ii) My answer to question 2, proposing 'compartmental' examinations, indicates the means of reducing the rigidity of the existing examination system. Also, with the same end in view, the mechanical marking of answers (and papers) ought to be corrected and minimised, the claims of English composition ought to be more precisely defined, and compensation between subject and subject should be more liberal in the more notable cases. One unfortunate circumstance which tends to make our examination system more rigid than it should be is that some of our question papers are based on the assumption that it is the main business of the examination to find out what the candidate does not know, instead of what he does know and how he knows it. These papers are *maximi in minimis*, trivial, myopic, long-winded; jejune, or merely technical. There are some, again, who think that the best way to arrange for improvement in quality is to make for a reduction in quantity, forgetting that some examinations (and examiners) are so bad that they reduce the average in quality and quantity alike, and the one because of the other. A change of air is the sovereign prescription for this malady. It was such a change of air (together with optional subjects, bifurcation and choice of questions) that ten years ago succeeded in reducing the rigidity of the system which was worse than the *rigor mortis*. Some Indians, it may be

SEAL, DR. BRAJENDRANATH—*contd.*

added, are apt to make of an examination a sum in vulgar fractions ; the men from the British universities generally bring with them a more liberal tradition.

(*a*) and (*b*) The degree of freedom that is, or should be, enjoyed by the teacher within the limits of prescribed syllabuses (or examination requirements) is a point I have discussed under question 2. I would only add that, in the circumstances of this University, such syllabuses, if they are sufficiently comprehensive and up to date, are (or should be) the best guidance to the majority of our teachers. With a few honourable exceptions, of course, we are apt to fall back in the race—we love to wear the five-year old (or fifty-year old) frippery of the wardrobe of literature, philosophy, and science, but it is not necessary that we should put on airs as well ! One of the best reforming (and informing) agencies in this University has been the syllabuses in some of the arts subjects in the new regulations—they have made this venerable gentlewoman look less old than she really is (whatever the calendars may say) ! But these syllabuses have served their time ; some of them want refurbishing.

(*c*) This distinction between subjects for teaching and subjects for examination was what the framers of the new regulations had in mind in omitting English history from the matriculation curriculum and making geography and Indian history optional. The laboratory courses in physics, chemistry, and other science subjects in the intermediate curriculum were treated similarly. The latter arrangement has worked fairly well ; the former has broken down. It is absurd to suggest that in omitting English history we wanted to immunise immature minds from the unsettling influences of Old England's story. Simplification, the relief of congestion, and undue strain, was our aim But the result has been disastrous. The reason is, as we now see, that a whole subject independent of, and unrelated to, anything in the examination curriculum cannot be so treated. But the experiment can now be made under the necessary conditions and restrictions in subjects which may properly be called 'under studies' (without any histrionic import!). Physiology, human and comparative, is, for example, an under study in a psychology course, the statistical method in an economics course as well as in logic, recent theories in physics, especially as regards the quantum, and recent ideas as to time, space, and the constitution of matter, in any course of metaphysics ; also short courses in æsthetics and ethnology, for studies in literature and history, respectively. Such supplementary courses fit in very well with the compartment system but, even now, they may be prescribed as the intermediate laboratory course is prescribed, and a certain percentage of attendance at college or university lectures on these auxiliary subjects may be required of the candidates taking up the correlated major subjects.

(iii) Let me first describe how this matter stands in our University. We attempt to combine practical training with theoretical during the whole course of a vocational education, and we institute practical (and, in some cases, oral) examinations to which we give a separate and independent (and often a dominant) position and value. The practical training which our students in medicine and engineering have to undergo (*e.g.*, in hospital and workshop) is in quantity and extent not inferior to that of their fellows at many a renowned university in the West ; and it is not the fault of our system or of our students if, by reason of the general stagnation and backwardness of things in this country as judged by scientific standards and achievements, they should, in any case, be debarred from instruction in the most advanced up-to-date methods. In engineering the department has, in addition, practically a year's probation after the final examination. In law we have introduced moot-courts, but are still, I learn, behind our American model and exemplar in realistic legal training. For teaching we include practical training, followed by a practical examination for testing skill in teaching by means of lessons given by the candidate to a class, or classes, of some

recognised school on three out of a number of subjects, and an appointment in the Education Department carries with it, in addition, a period of probation. But we do not train our would-be teachers in the experimental study of Indian school-children, and in practical methods of mental measurement, and our school inspectors are in a still worse condition, those blind leaders of the blind. In commerce, agriculture, and technology we propose to have actual training in business houses, farms, and workshops concurrently with the theoretical studies. Two other plans have been adopted in some places. First, a theoretical course, only for those who have already learnt the mechanical or technical part of the work by having risen from the lower rungs of the ladder, in the particular business or vocation, and, secondly, advanced theoretical training, usually with mere laboratory practice, followed by a diploma and with a chance of securing work on the strength of the diploma and learning the business by actual practice. Except in law, for which the High Court has its own rules of admission, we have advanced beyond the second plan. For, of the three accessories to practical training we have, or propose to have, workshop and apprenticeship, in addition to the laboratory. The first plan is good when our object is to train foremen, overseers, skilled mechanics, etc., in the organisation of a scientific industry, but it cannot give us a regular and adequate supply of the captains of industry or trade, the organisers and entrepreneurs, the chemists and other scientific experts and investigators, whom we *equally* require in sufficient numbers for our industrial regeneration and salvation.

Administration in the public service requires a word to itself. The existing arrangement is to recruit for the more responsible services from among the graduates of the University (except in the case of backward communities or specially circumstanced minorities). And the arrangement has served its purpose well. To design special courses for training the official or clerk—courses divorced from the general educational schemes—would be a most retrograde step. The universities and schools must furnish the quota of English-knowing literates for the civil services of this country. The necessary basis of a *general liberal* education for such vocational training can be satisfactorily provided only by a university (or an affiliated school) or, what is the same thing, by the State acting through a statutory or chartered intermediary group, with devolution of function; and any *close and merely departmental* tests of general education (except perhaps in the case of exceptionally situated minorities) are bound to be inefficient and will not inspire such confidence as those administered by a broad-based intermediary body like a university. The only questions are as follows:—

(A) Whether, after finishing the college or school course of a general liberal education and receiving the hall-mark of a degree (or certificate), the student who chooses the civil service for a career should receive a further course of special (vocational) training for his work

(B) Whether such special course, if any, should include a term of probation or apprenticeship

(C) Whether there should be an examination for the selection of recruits for services and, if so, whether the examination should come after the general education but before the vocational training, or after the latter but before the probation or apprenticeship, or right at the end after the probationary term. For administration in the public service (including service under municipal and local bodies), as well as for the cognate and allied work of professional statists, accountants, bankers, commercial and land agents, railway managers, sanitary experts, chemical examiners, analysts, etc., outside the bureaux and services, we should provide special vocational training in a department of the University under the proposed faculty of commerce and technology. It must be remembered that Government officials in this country have, in many cases, to do expert work in various departments for

SEAL, Dr. BRAJENDRANATH—*contd.*—SEN, B. M.—SEN, BENOY KUMAR—SEN, BIMALANANDA.

which outside agency would be available in other lands; it is all the more necessary that the educated Indians in the different branches of the civil service, experts in the official sense, should possess the knowledge and trained skill of real experts along with the powers, privileges, and special jurisdictions of the latter.

SEN, B. M.

(i) There is, undoubtedly, some abuse of examinations and it begins early at the schools

SEN, BENOY KUMAR.

After giving a good deal of thought to the consideration of this subject I have come to the conclusion that the examination system has to be accepted as a necessary evil and that there is no escape from it.

(i) It is not true that teachers as a general rule subordinate their teaching to examination, but it must be admitted that that is the dominating idea with most of the students, and this certainly has a cramping influence on the teacher. This state of things must continue so long as the value of the university degree is artificially kept up by making it a test for admission into the public service. The only escape from the examination system lies in giving the colleges the right to confer degrees—and that will be possible only when the colleges will have reached their full development, *i.e.*, when each of them will have itself become a teaching university.

(ii) (*a*), (*b*), and (*c*) Though it may be very desirable to reduce the rigidity of the examination system none of the suggested methods seems to be practicable because with a difference of standard which is not at all desirable, and without the pressure of an examination students cannot be made to pay sufficient attention to the subject—hence, all labour will be simply wasted.

The only remedy lies in placing more reliance upon the teaching staff of the different colleges who have personal knowledge of their respective students. But, under the existing circumstances, the whole responsibility cannot be thrown upon them as it may lead to corruption. The only practical step that can be taken in this direction is to make the test examinations of the colleges a real thing. No student should be sent up for the University examinations whom the college authorities do not sincerely believe to deserve a pass. I know that it is difficult to make the colleges conscious of their responsibility in this matter, but something may be done by asking the inspectors to go into details over the periodical and test examination questions and results of each college. This may help to standardise the examination of the different colleges. By attaching importance to the test examinations I wish to escape from the accidental and mechanical nature of the University examinations, for there the results will depend upon one paper alone while in the former case the examiners (that is, the college teachers) will have more opportunity of finding out the true merits of the students.

SEN, BIMALANANDA.

(i) It is not untrue that in the existing system teaching is unduly subordinated to examination. Boys know that their chief aim is to pass their examination, as therein lies the passport to all sorts of employment necessary to secure a comfortable living; teachers also know that their work will be judged by the number

of passes that their boys can secure. This is certainly detrimental to sound education.

(ii) (*a*), (*b*), and (*c*) But, as examinations cannot be altogether eliminated, its rigidity might be reduced in the ways mentioned. Greater freedom may be given to teachers if they are *real* teachers. But the system of entirely depending upon teachers seems to have ended in failure in the case of middle English and middle vernicular examinations It is difficult to lay down any general principle—the ways suggested in the question itself may be tried.

SEN, Rai BOIKUNT NATH, Bahadur.

(i) Yes.

(ii) Reduction of the rigidity of the examination system is desirable.

(*a*) Yes.

(*b*) Not possible, except in post-graduate examinations.

(*c*) Modifications and changes would be necessary in the practical examinations of the B.Sc. course. With a school certificate the university examination may be dispensed with in some subjects.

(iii) Practical training in the professions mentioned is essentially necessary. In the legal profession there should be a test for the cross-examination of witnesses.

There is a great defect now. Students in the law classes are not taught the art of cross-examination which is absolutely necessary for a lawyer who has to work in the original side of courts and who has to practise in criminal courts. Students should be taught, and they should undergo some sort of examination in showing their fitness in cross-examining witnesses.

SEN, PRAN HARI.

The educational opportunities of Bengal at the present moment are few and far between, and are exceedingly limited in their sphere and character in comparison with the daily increasing needs of the present hour. The way and manner, therefore, in which examinations are held, conducted, and directed by the University, and more particularly the lines on which, and the standpoints from which, the questions in the different subjects of examination are framed, and the answer papers are examined, and marks allotted by the examiners, do not seem to me to take as much note or cognisance of those opportunities and needs as they should—the result being that the examinations, instead of serving the useful purpose of testing real merit and proficiency, for the most part, serve the purpose of testing the retentive powers of memory and other kindred qualities of a dubious character.

(i) So far as I am in a position to judge there is a great deal of force and validity in the criticism that in the existing University system teaching is unduly subordinated to examination—it is unduly subordinated possibly because the traditional love of learning for its own sake has, owing to a variety of circumstances of which the less said the better, almost fled the land, and *pari passu* with the time-honoured ideal of plain living and high thinking; and also because *that* problem of problems—the bread problem—has, for a variety of causes into which it would be neither possible nor profitable to enter here, come to the forefront of all the burning questions of the hour. And "anyhow to pass the examination and to keep bone and flesh together, not the soul" has become the cry of the hour.

(ii) (*a*), (*b*), and (*c*) By all means attempts should be made to reduce the rigidity and the cut-and dried character of the present examination system. And, if the

SEN, PRAN HARI.—*contd.*—SEN, RAJ MOHAN.

examinations might, much more profitably and advantageously than now, be varied to meet the needs of the different subjects of study, and of different groups of students, by not adapting and accommodating teaching to examination, but *vice versa*; and the teacher might very properly, and perhaps profitably, also be left with a maximum of freedom in respect of teaching and *educating* in the literal sense of that word; and examinations might very well be adjusted to the course given by the individual teachers. In view of the needs of the present hour, and in response to the movements in the outside world—industrial, economical, and otherwise—teaching might, and should, very properly be given in such subjects as agriculture, commerce, and some small home industries.

(iii) Examinations may serve as a test of fitness for such professions or callings as medicine, law, teaching, engineering, agriculture, commerce, and industry, including aspects of management and of scientific guidance and research only to this extent, that they may be taken as preparing the way for a subsequent course of practical training under experts or specialists in the different fields of practical work, but the period of novitiate may be followed by a further departmental, or high proficiency, test, especially in agriculture, commerce, and industry.

SEN, RAJ MOHAN.

The object of the University examinations is, first, to ascertain the general intellectual ability of candidates and, secondly, to know the degree of their attainments in the subjects in which they are examined. Both of these objects, I believe, are now, to a large extent, frustrated on account of the cramming that prevails among students. This is, no doubt, an abuse of the examinations made by them. But, when we blame them, we ought to remember that they are of immature age and judgment, and also that the majority of these come to college not for learning, but for a university degree, without which they cannot earn their livelihood. It is not, therefore, strange that they, in order to gain their immediate object, take recourse to cramming, even at the sacrifice of real education. Now, it is the duty of the University so to modify the system of examination as to make such abuse impossible. Beside the taking of special care at the time of setting questions for the examinations the only thing we can do, it seems to me, is to take into account the work done by a student during the whole course of his study in a subject, along with the answers which he submits at the examinations. But, to make this possible, the assistance of his teachers must be taken, and the method of college teaching should be so arranged as to give teachers full opportunity to know how the student works from day to day. With the present number of students and teachers I do not consider this to be practicable.

(i) It is true that, when preparing their pupils for examination, the teachers have to keep the examination requirements in their view. But this should not necessarily lead to bad teaching, unless the examination questions are often injudiciously selected. The system of teaching of some teachers may be bad, as, for example, if they only give notes on the questions which they expect at the examinations. This is no fault of the university system, but of the individual teachers.

(ii) (*a*) and (*b*) Teaching must, to a great extent, always follow the examination requirements when students are preparing for the examinations. If individual teachers are to select their own courses, and different examinations are to be arranged for different colleges, the system, I fear, will be too complex for practical operation, especially since the number of students to be dealt with in the University of Calcutta is very large, and the colleges are situated far apart from one another. There seems to me to be no necessity for local variations of courses in the same subjects, as there are no special purposes to be served at different places in Bengal. The problem of

education is mainly the same everywhere in the province. At least, as far as mathematics is concerned, I do not see what good will be produced by giving such freedom to individual teachers when, at present, the courses are prepared by the combined efforts of our best men.

(*c*) I do not think that our students, as they now are, will seriously study any subject in which they are not to be examined.

(iii) The special qualifications necessary for a profession cannot be tested by university examinations; but those examinations create a presumption of general competence in favour of the persons who pass them successfully. The examination results seem to me to be more reliable in the profession of teaching than in those of law and medicine.

SEN, Dr. S. K.

(i) Yes.

(ii) (*a*) and (*c*) Yes.

(iii) In medicine, strict practical and oral examination, with little paper test.

SEN, Rai SATIS CHANDRA, Bahadur.

(i) At present, teaching is subordinated to examination, but not "unduly."

(ii) (*a*) Yes.

(*b*) No; there ought to be some uniformity under the present conditions of India.

(*c*) I do not understand what are the subjects meant.

(iii) In medicine, law and administration and public service examination ought to serve as the test for fitness, but, in teaching, engineering and industry and agriculture, while examination ought not to be entirely dispensed with, original research and practical training in these subjects ought to be taken into account primarily as the test of fitness.

SEN, SATISH CHANDRA.

(i) As examination is the most approved method of testing knowledge teaching must needs be subordinated to it, to some extent at least. Safeguards may, however, be provided against this subordination being carried too far

(ii) The rigidity of the examination system should be reduced. I do not think that, having regard to an uniformity of standard, examinations may be adjusted to the courses given by individual teachers, or that it is desirable to dispense with a formal examination in particular subjects.

(*a*) While the teaching may, as at present, be defined by prescribed examination requirements the use made of the examination may be varied. Already, in our examinations, the setting of alternative questions has become a settled practice. The rigidity may further be reduced by valuing the answers according to their merit when a candidate may fail to answer a certain number of questions. When a candidate is unable to present himself at the examination, either wholly or partly, owing to a valid cause, the work done by him throughout the period of the course under examination may be produced before a board, who shall determine whether he should be declared as passed.

(iii) Examinations may serve as a test of general fitness for a specific career so far as the instruction received may be expected to furnish the mind with the theoretical aspect of the career, but examinations should be supplemented by

SEN, SURYA KUMAR—SEN GUPTA, Dr. NARENDRANATH—SEN GUPTA, Dr. NARES CHANDRA.

SEN, SURYA KUMAR.

(i) The criticism may apply to the matriculation and I.A. examinations. As to the higher examinations I confidently believe that it has no foundation in truth.

(ii) (*a*) The teaching should be defined, as at present, by prescribed examination requirements.

(*c*) There may be no test by a formal university examination in second languages and vernaculars.

(iii) A four years' course of study may be sufficient for the purpose.

SEN GUPTA, Dr. NARENDRANATH.

(ii) Examinations are meant to test the range of information and the ability to marshal the facts learnt. The first should, as a matter of principle, be left out of the scope of university examination as much as possible. If we had a reliable system of tutorial work at colleges there would have been no need for testing the range of information; for it involves hardly anything besides memory work. But, unfortunately, the present system of tutorial work is a failure.

The number of institutions that send up students for university examinations renders it difficult to suit examinations to the lectures. At the same time, it lowers the standard inasmuch as you have to keep strictly to the syllabus in order to ensure uniformity. Even there you cannot demand the maximum, but only the minimum—that which is common to all. Again, the fact that the syllabus remains fixed for a long period of time tends to render the question papers alike in their nature. Thus, memory, rather than intelligence, is given the primacy.

Reversion to the text-book system would, I think, obviate many of the difficulties mentioned above. It would, at the same time, enable the student to read at least one authoritative work first hand. At the present time, the number of recommended books is large, and the student can neither purchase nor have access to all of them. If their number be reduced the student may reasonably be expected to read the text thoroughly.

SEN GUPTA, Dr. NARES CHANDRA.

(i) Yes; the average boy reads with examination as the object, and the average teacher generally regulates his teaching with reference to the examinations.

(ii) Yes; I have indicated my ideas before. An experimental beginning should, by all means, be made.

(iii) For the public services I think there ought to be special examinations. With regard to professional careers generally mere examination counts for little towards success. For the profession of law I think there ought to be an examination in law, mostly directed towards branches which are necessary for practice, but some practical training under a lawyer should be insisted upon.

I am strongly in favour of the separation of the university and professional courses in law. The B. L. course should be so arranged as to give students a thorough grounding in the history and science of law. Some branches of law which are of only indirect scientific value, such as civil and criminal procedure, may safely be omitted from the B.L. course, while we might add constitutional and administrative law (English and Indian), history of Hindu law and Muhammadan law, a wider course of ancient law and philosophy of law. The B.L. degree should not, by itself, qualify for the profession.

SEN GUPTA, Dr. NARES CHANDRA—*contd.*—SEN GUPTA, SURENDRA MOHAN—Serampore College, Serampore.

The council of legal education should arrange for a different set of examinations in three grades for advocates, for vakils of the High Court, and for pleaders of lower courts. For each course they might insist upon a good practical course of instruction under lawyers and also in courts (as they do in Germany). The courses of study for the three examinations would be different in the greater or less importance attached to scientific and historical courses. The B. L. degree should not, as I have said, of itself, be a qualification for the profession, but candidates for the profession may very well be exempted from examination by the council in subjects which they have studied for the B. L. degree.

The professional examination ought to be open to all who have received a university training, and a degree should not be insisted upon. A good knowledge of the English language should be a *sine qua non*.

SEN GUPTA, SURENDRA MOHAN.

(i) In the existing system teaching is unduly subordinated to examination. No credit is given to the student for his studies. The present percentage system is mechanical. A student who may not have the percentage of attendance required, but may have really improved by the training in the classes, is not given any credit for it. The teacher's certificate, in the case of a student, should have more value than at present.

(ii) An attempt should be made to reduce the rigidity of the examination system. The syllabus of study should be laid down. In the examination paper questions to the value of full marks only should be from the minimum syllabus requirements and the other alternate questions should be from outside that. So that a student who has read only the syllabus portion will be in a worse position than another who has had a more extensive study. For example, in an examination paper twenty questions are set and ten questions carry full marks. Only ten of the questions set should be from the minimum syllabus standard and the other ten questions from other portions which a student may be expected to have studied over and above the minimum requirements. So that there will be alternatives for those who have studied more, at the same time making allowance for the average student.

He will be required to be taught in some subjects allied to those which he chooses, but there will be no formal examination.

(iii) In the case of professional training examination alone cannot serve as a test of fitness. It is to be introduced as it is the only impersonal test. In the case of medicine I think the first M. B. examination, which is really a scientific one, should be elevated to the dignity of B. Sc., and the student that passes that examination should join some recognised hospital for a certain term of years where he shall have lectures in those medical subjects. If, then, he secures a diploma from that hospital he will be eligible for the University degree examination in medicine. The diploma will entitle him to practice as a medical man.

In a similar manner examinations alone cannot serve as a necessary test of fitness for a career in law and teaching and engineering.

In agriculture no examinations can be a test of fitness. A sound practical training in a well-established firm is all that is necessary, so also in commerce and industry. Examinations alone are of very little importance in these.

Serampore College, Serampore.

(i) We think there is ample ground for the criticism that in the existing University system teaching is unduly subordinated to examination. It cannot very well be otherwise, where the examinations are rigorously external, and the student's whole future depends upon the marks obtained by him in his examination. As

Serampore College, Serampore—*contd.*—SHARP, The Hon'ble Mr. H.

one of our Bengali colleagues writes:—"The student is in college not to learn things for their own sake, but to gather material for the purpose of getting through certain tests. The average Bengali student is frankly worldly-minded. He cannot be expected to care for teaching which does not clearly aim at securing a pass for him at the University examination. The college lecturer cannot help but adapt himself to the peculiar requirements of the situation. At least, his work is something in the nature of a compromise between lecturing and coaching for, if he should attempt to soar beyond well-known limits, his class will very soon clip his wings or openly refuse to follow him. Most colleges in Bengal cannot choose, but humour, their students for the sake of the fees they pay." These remarks, we think, in the main justifiable, though it must not be forgotten that even under the present system many of the best students have a genuine love for their subject, and many teachers refuse to subordinate their teaching to examination purposes.

(ii) We suggest that the rigidity of the present system might be reduced by :—

(A) Bringing the Calcutta colleges into far closer touch with one another and the University, and thereby raising the standard of teaching to such an extent as to make it safe to entrust the work of examining to the teachers themselves in association, at certain stages, with external examiners. In other words, the system now being put into effect in connection with the M.A. and M.Sc. might be gradually extended to the ordinary college work. This system would be more difficult of application to the mufassal colleges. In some cases, these could be strengthened through a unification of the higher educational forces of the district, and then be allowed to conduct their own examinations, in association with certain external examiners appointed by the University. In other cases, where conditions clearly justify such a course, such colleges could be given the status of independent universities.

(B) By instituting separate tests for various Government appointments now dependent upon the results of university examinations. Degrees and appointments are now far too closely associated. We do not think it desirable to underestimate the importance of a university training as a desirable preparation for the various walks of life, but we think a too close association of the degrees and Government or other appointments tends to degrade the true university ideal. To the various professions also other avenues may be opened.

(iii) In other countries university examinations, under certain conditions, serve as a test of fitness for specific careers. In England, for instance, university degrees in medicine are registrable qualifications equally with the diplomas granted by the colleges of physicians and surgeons, though the General Medical Council is authorised by Act of Parliament to exercise a certain degree of supervision, through the Privy Council, over university courses of study and examinations in medicine. In regard to other professions and callings also university examinations are recognised as qualifying for admission, though, in many cases, after further supplementary tests of a more technical character. In India the professions have not been organised into great corporations as they are in other countries, but we presume that is what we may expect in the course of time, and the development would be a healthy one. The fact that they are non-existent at the present time has perhaps tended to make the universities too utilitarian in their academic outlook and arrangements.

We think no useful purpose is served by the University instituting examinations in technical subjects unless it is in a position to provide the scientific equipment and the practical apparatus necessary for teaching the subjects in an adequate way.

SHARP, The Hon'ble Mr. H.

(i) The criticism is valid. This has already been stated as regards the matriculation, and it applies to higher examinations also, though probably to a less

SHARP, The Hon'ble Mr. H.—*contd.*—SHASTRI, PASHUPATINATH.

extent in the higher examinations. The prevalence of worthless " keys ", a the objection which many students show to any slight digression on the pa of the professor beyond the immediate scope of the course, are symptoms this fact.

(ii) An attempt at variation should be made. But it can be made effectively only local universities. In the affiliating university, I fear that not much mo can be done than is suggested in my reply to question 5 and in paragraph 9 my general note.

(*b*) Does not appear feasible.

(*c*) I am strongly in favour of this course, but public confidence in the teache is not yet sufficiently established to render this acceptable save to a ve limited degree. Non-examination subjects would probably be scamp in many institutions. There is a complaint that this is so in the case the non-examination subjects of the Madras school-leaving certificate.

(iii) Examination is necessarily an imperfect test. But a well-conducted examinati is extremely valuable and is the only convenient system at present devised f selection. I consider that the examination system is improved by combinati with a good system of nomination.

The value of an examination largely depends upon the manner in which it is co ducted and the possibility of giving it a practical and personal characte Thus, I would consider no examination in any of the subjects mentioned to useful which comprised mere book questions. Further, practical and oral tes are necessary. Even so, examination provides an imperfect touchstone of f ness. The student in commerce may be found to possess an excellent kno ledge of markets and of what the Germans call *Waarenkunde*, etc.; but he m be lacking in the combination of boldness and prudence requisite to succes The student in industry may have made good progress in applied chemist and yet be incapable of managing labour or lacking in the power of discover The answer papers of a candidate for the public service may give proof of har work and literary ability or of a knowledge of law and the machinery of gover ment, but these things are no certain proof of his honesty and power dealing with men. The opinion of those who have had the instruction of t student is requisite if an estimate is to be formed of his character; apart fro his power of acquiring knowledge; and such opinion will be valuable only if t organisation of the staff and the institution has rendered possible a clo relation and some social community between the teacher and the taught.

SHASTRI, PASHUPATINATH.

(i) It is true that teaching is unduly subordinated to examination. But that is no fa of the University. Guardians send their boys to the University not to acqui learning, but to secure good passes. Many doors are closed to him who h not obtained a university diploma; as, for example, one will not be allowed practise as a lawyer unless he can pass a stiff university examination. Besid people of the lower classes think that their sons will have a position in socie if they get university diplomas. Money, influence, and position are the thr things which the University is expected to produce easily. Therefore, success the University examinations is regarded as the *summum bonum* of a studen life, and knowledge is disregarded. Hence, teaching is subordinated to exami ation.

(ii) By the new regulations of the University the rigidity of the examination syst has been much lessened, and it should be further lessened by all possible mea

(iii) As regards the professions of medicine, law, etc., it is desirable that the Universi should examine students so far as the theoretical portions are concerned. It enough if the University examines a law student in jurisprudence, Hindu la etc., and it need not see whether the student has got by heart all the codes th are used in practice. The student can attend court and attach himself to a m of the profession and there he can learn the codes better than at the University

SHASTRI DR. PRABHU DUTT.

(i) It may be truly asserted that under the existing university system teaching is unduly subordinated to examination.

(ii) But, as examination is the most convenient way of testing students' fitness it cannot altogether be dispensed with. The way in which it is at present conducted needs reform.

(A) For the sake of uniformity a syllabus should be defined in every case, but it could be made sufficiently elastic if the system of inter-collegiate lectures is adopted, especially for the B.A. honours and the M.A. The syllabus should be drawn up by all those engaged in the teaching of a certain subject and, so far as teaching goes, each teacher should limit himself to that branch and portion of the subject in which he may be specially interested. Students may attend different courses according to their requirements.

(B) The B.A. pass course should be provided for in each college independently. Inter-collegiate lectures are recommended for the B.A. honours and the M.A.

(C) All regulations requiring students to complete a certain percentage of lectures in order to be eligible for the examination should be abolished. They should be allowed to attend any lectures they may like.

(D) University professors should also be attached to a college by rotation.

(E) The intermediate examination should be abolished altogether.

(F) Either the I.A. classes should be added to the school course or, if the existing system continues, students may be promoted to the third-year class by the college authorities on the strength of class record.

(G) I do not think that it is necessary to have a formal university examination for each section of a subject.

(H) None should be appointed to teach the M.A. classes who does not possess a British degree, with some distinction or else has not had at least five years' teaching experience after taking his indian degree.

(I) The practice of dictating 'complete notes' to students is nowhere so common as in Bengal. Hence, examinations should be so conducted as to discourage 'cram', and to require a first-hand acquaintance with the original texts and some evidence of independent thinking.

(J) There should be a *viva voce* test in every examination.

(K) For professions such as medicine, law, teaching, etc., it is desirable to have special examinations. The practice of admitting only graduates should cease. For each professional course there should be a 'preliminary' test, on the passing of which one should be admitted to the course of study. It is not necessary to have a formal university examination at the end of each year's course. For instance, in law, only the B.L. might remain a formal examination, and the other two examinations, *viz.*, the preliminary and the intermediate, might be abolished, and students' work may be judged by their class exercises. At present, students attend their law classes simply for making up the required percentage. In teaching also only the B.T. examination might remain a university test; the L.T. may be turned into a mere departmental test, without any formal examination, and the record for the lessons given by a pupil teacher during the whole session may receive due consideration.

SINGH, PRAKAS CHANDRA.

(i) I think there is validity in the criticism that teaching is unduly subordinated to examination in the existing University system. At present, the aim of students—of the vast majority of them—is to pass an examination as high as possible, irrespective of any consideration as to the amount of learning acquired.

SINGH, PRAKAS CHANDRA—*contd.*—SINHA, Kumar MANINDRA CHANDRA—SINHA, PANCHANAN—SINHA, UPENDRA NARAYAN.

The result has been that students consider the short notes given by their professors more profitable reading than the text-books themselves. The effect is, as it must be, an incoherent collection of ideas in their mind.

The remedy I would suggest is that I would make the I.A. or I.Sc. examination a much simpler affair than it is at present, as I have suggested in my answer to question 1. The object of this examination will be only to ascertain whether the student has got some idea of the various subjects into which he has been introduced and whether he is in a position to make a selection of the subjects for his B. A. course that will suit his taste and capacity best.

I would make the B.A. or B.Sc. examination a real test of knowledge of the subjects so far as they have been prescribed for the course.

If, in the B. A. or B. Sc. examination, a student passes in one subject and fails in the other, I would require him to pass in the latter subject only when he appears a second time for a degree.

If this scheme is found impracticable I would compel students only to attend lectures in a variety of subjects and apply the examination test to only two of them.

SINHA, Kumar MANINDRA CHANDRA.

(i) Yes; teaching at present is wholly subordinated to examination.

(ii) (*a*), (*b*), and (*c*) In some courses examination alone will meet the requirements; in others, the teacher should be given more freedom; in still other requirements no examination need be necessary, *e.g.*, mathematics would be tested by examination, English would require greater freedom to be given to the individual teacher, the practical arts and sciences would require no outside test.

(iii) In all these branches some sort of test should be introduced to judge of the standard the student has attained.

SINHA, PANCHANAN.

Examinations have their use inasmuch as they are the only practical tests of the standard of knowledge attained.

(i) There is much truth in the criticism that under the existing system teaching is subordinated to examination.

(ii) (*a*), (*b*), and (*c*) Attempts should be made to reduce the rigidity of the present examination system, and all the ways suggested may be tried. But, so long as the degree is more prized than the training, and so long as a proper answer to a particular set of questions on a particular date at the end of a long period of work are regarded as more important than regular class work, the evil will continue. The only way to combat it is to attach more importance to regular class work than to the final test examination.

SINHA, UPENDRA NARAYAN.

(i) No.

(ii) (*a*) and (*c*) I am in favour of these.

(iii) Inter-science may be taken as the minimum qualification for entering medicine, engineering, agriculture, commerce, and industry.

Graduation in arts and science may be made the minimum qualification for entering law and teaching.

SIRCAR, ANUKUL CHANDRA—SIRCAR, The Hon'ble Sir NILRATAN—SMITH, W. OWSTON—SÜDMERSEN, F. W.

SIRCAR, ANUKUL CHANDRA.

(i) Yes; the teaching to be defined generally, and not rigidly (as at present), thus securing to teachers some degree of freedom. The examination to be adjusted to some fixed standard.

SIRCAR, The Hon'ble Sir NILRATAN.

(i) Yes.

(ii) (*a*) and (*c*) Yes; the rigidity of the examination system may be reduced by framing syllabuses and by holding no examination in certain subjects though there may be teaching in these.

(*b*) This method could be applied to post-graduate teaching and examination; but for college teaching up to the graduation stage all that could be done is that the work during the whole period of study should be recognised as part of the examination; but where several teachers of different colleges are concerned it would not be possible to grant any considerable degree of freedom as regards teaching to some of them and then shape the university examinations according to the teaching imparted.

(iii) Examinations, as conducted here, serve as very good tests for fitness for the following careers:—

(A) Medicine.
(B) Engineering.
(C) Teaching.

This is so because students receive a very good practical training in these branches in circumstances approximating the conditions of actual life and there is a practical examination in each of the subjects.

In the cases of agriculture and industry a properly conducted examination would serve only as a fair test of such fitness.

In commerce, law, and administration in the public service examination can serve as tests of such fitness in a limited sense only.

SMITH, W. OWSTON.

(i) No doubt it is.

(ii) All these things depend upon the character of the men who can be obtained. During the war it is almost impossible to get suitable men and, apart from that, I do not think that men of first class ability and character can be obtained in adequate numbers unless there is a complete change of policy towards educationists. If they are obtained by Government or by the University under present conditions it seems generally to be under some misunderstanding, and years of friction may be the result or a speedy resignation.

SÜDMERSEN, F. W.

(i) Teaching is entirely subordinated to examination. The student resents anything outside. If the books are not "finished" the complaints are loud and noisy. The capacity to 'finish books' quickly is the mark of the successful "professor". Activity outside the limited area has been tried in this college by lectures on general subjects. These have received some response, but a very definite attempt that was made in a particular subject by the professor concerned to secure a wide reading of it by his pupils resulted in almost empty benches in the following year.

(ii) It is obviously very desirable to reduce the rigidity of the examination system, but it is very difficult to suggest ways and means.

(*a*) This is the only direction in which some possible satisfaction may result. But, in reality, the new regulations do not prescribe text-books in most subjects.

Actually, however, the result has been the production of many cheap "guides" and "keys" and an eighteenth cram book. Examinations are by regulations made to conform to an almost stereotyped form and any variation or unusual element in the examination paper is readily made use of as an excuse for the relaxation of the standard.

(*b*) and (*c*) This may be possible under very careful safeguards, and in respect of only honours and post-graduate work. But in the present position of affairs the University reduces local pressure, and safeguards, to the extent, the interests of education. If the mufassal universities referred to before provided a supply of external examiners to the two Calcutta universities suggested Calcutta itself would find a source of strength even from comparatively weak mufassal centres.

SUHRAWARDY, HASSAN.

(i) Yes.

(ii) (*a*) and (*c*) The present system might, with advantage, be varied by combining them, *i.e.*, the teaching might, for certain purposes, be defined as at present, by prescribed examination requirements, while in some particular subject, or section of a subject, though teaching might be given, there might be no test by a formal university examination.

(iii) In the profession of medicine, for instance, the mere passing of a prescribed test or examination should not be the only criterion of a student's fitness for a doctor's career. He should, further, secure credentials from his teachers as to his moral, physical, social, and educational fitness for the purpose. In the same way, failing to satisfy the test of an examination should not stand in the way of the student obtaining a pass minimum in the subject, provided his teacher vouches for his ability and other qualities referred to above, and his failure in the examination can be ascribed to a momentary nervousness or lapse.

SUHRAWARDY, Z. R. ZAHID.

(i) Yes.

(ii) Yes.

(*b*) I do not think it practical.

(*c*) For special subjects, for the teaching of which there may not be facilities provided by the University, college diplomas should suffice.

(iii) In law there should be, besides the desk examination, a practical examination such as drawing pleadings, writing judgments, and arguing cases.

THOMSON, Dr. DAVID.

(i) In the existing University system teaching is unduly subordinated to examination. But the fault does not, therefore, lie in the system. After all, the University system here is a Western university system. The causes lie away back of the system in our students who come to college inadequately prepared, especially as regards English, in our professors who, being for the most part themselves products of the existing educational machine, naturally find it difficult to realise its defects. This is no disparagement of my Indian colleagues who, so far as I know them, are an able body of men. The whole business is a vicious circle. So long as our students come from schools inadequately staffed by untrained and ill-paid teachers so long must we expect to find our colleges full of students for whom a system of perpetual examination is demonstrably the most successful as the public and the students themselves judge success. Our colleges thus tend to become secondary schools in all but name, and so the evil runs on. Our schools are the root of the evil; and, until they are improved, very little improvement is

THOMSON, Dr. DAVID—*contd.*—TIPPLE, E. F.

(ii) Until our schools are improved any attempt to reduce the rigidity of the examination system will only curtail the University pass list. The student community cannot be expected to regard this as an advantage, and discontent is bound to follow. The only change I should regard as advantageous would be a gradual increase in the internal character of our examinations under adequate control.

(iii) My remarks under this head are confined to the teaching profession. It is a trite saying that a teacher is born, not made. The truth in the aphorism lies in the fact that character and personality count for so much in a teacher: and these are qualities not tested by any written examination. They are, to some extent, tested in an oral examination. The written examination can quite successfully test a candidate's knowledge of the subjects he proposes to teach, and his knowledge of the methods by which they should be taught. If a teacher's business were merely to impart so much information in a prescribed way the written examination test would be all-sufficient. As his business is, however, not merely to impart instruction, but to develope a bundle of good habits in his pupils in the process, the written examination must be amplified by the oral examination, and both by the test of experience in our judgment of our teachers.

TIPPLE, E. F.

(i) This, undoubtedly, is the case in certain instances, more especially where the syllabus of an examination has been negligently drawn up. Cases are known to the witness in which the syllabus has consisted merely of a list of chapters and paragraphs from a given text-book; or, again, has been merely a reproduction of the contents table of a text-book; such instances are not rare in India and they, necessarily, make for the subordination of teaching to examination. There is, undoubtedly, a subtle tendency in India for matters to drift in this direction as is evidenced from the following case:—The appended syllabus A was prescribed for the school-leaving certificate examination, United Provinces, 1916 and 1917; in 1918 it appeared in form B, to the incomplete and unsatisfactory nature of which attention was drawn by a school leaving certificate examiner; on investigation by the controlling board it was impossible to trace the responsibility for the change. Form B is specially calculated to subordinate the teaching to the examination, and the case merely illustrates the matter in question, which is one requiring most careful consideration in this country Unless the tendency in this direction can be checked teachers brought up and trained under the system cannot be expected to break away from their old traditions.

(ii) In all cases where a course of instruction deals with the well-established foundations of a subject which it is desired to prescribe for a public examination a syllabus, indicating the main fundamental principles on which the course must be based, appears to be necessary, and need not unduly restrict the play of individuality in the teaching. Such a syllabus, however, if given to an outside examiner, should always be accompanied by sample question papers in order that the standard required may be made clear and continuity in successive examinations maintained. Such a syllabus carefully prepared by a representative body of teachers serves a useful purpose, and should not prove unduly restrictive.

When, however, the course of instruction is concerned with the boundaries of a particular subject a syllabus becomes an impossibility, and the only competent examiner will be the teacher or director under whom the student has studied and carried out his investigations. Such cases only occur in the higher branches of university work.

(iii) In engineering an examination can only serve the purpose of a preliminary test of fitness which must be either preceded, or subsequently confirmed, by a period of

TIPPLE, E. F.—*contd.*

practical trial on works, whereby the student's ability to apply his knowledge to the realities of his profession may be proved.

The London Institute of Civil Engineers stipulates for such an apprenticeship period; in many engineering colleges the diploma is given on the examination, which is succeeded by the period of apprenticeship; in other cases, a sandwich system is adopted, but it is a moot point as to which method produces the best results. Some students have their interest more stimulated by the theoretical work; others, and possibly the majority, find greater incentive in the practical work of the apprenticeship period.

A well-known point in this connection, which appears to be frequently overlooked in India, is that, although a properly co-ordinated course of instruction in an adequately equipped and staffed engineering college enables its students to gather sound practical experience on works more readily than is possible in the case of those who have not had the advantages of a college course, yet it cannot, by itself, produce engineers possessed of practical experience in their profession. Such experience can only be obtained on works.

APPENDIX.

SYLLABUS (FORM A).

VI.—Further course in mathematics, including mechanics and trigonometry.

The examination will consist of two papers of three hours each and a practical examination.

Syllabus.

1. *Algebra.*—Fundamental laws and definitions; factors; remainder theorem; H. C. F. and L. C. M. Elementary properties of fractions. Simple, quadratic, and simultaneous equations; elementary theory of equations and elementary elimination. Elementary properties of surds and imaginary expressions, involution, and evolution. Elementary propositions in ratio, proportion, and variation. Elementary progressions. Graphical representation of simple functions.

2. *Mechanics.*—Conceptions of force. Graphical representation of forces. Parallelogram law. Triangle of forces, polygon of forces. Composition and resolution of forces. Elementary graphical methods of treating co-planar forces, parallel forces, centres of gravity, moments, couples. Funicular polygon, conditions of equilibrium for a particle and for a body. Friction and its laws. Simple machines, inclined plane, lever, wheel and axle, pulleys, velocity ratio, force ratio, efficiency.

Meaning of the terms velocity, acceleration, relative velocity, angular velocity, etc. Newton's laws of motion. Impact. Elementary dynamics of rectilineal motion and simple applications to the theory of work. Horse-power.

Meanings of the terms mass, density, specific gravity, intrinsic weight. Pressure at a point, pressure of a liquid, pressure of a gas. Buoyancy of liquids, Boyle's law.

3. *Trigonometry.*—Methods of measuring angles; trigonometrical ratios and their values in special elementary cases; relation between the trigonometrical ratios; trigonometrical transformations; multiple and sub-multiple angles; solution of triangles; area of a circle; properties of logarithms; the use of logarithmic tables; elementary properties of triangles; measurements of heights and distances.

Practical examination.—Determination of the height of a tower, or distance between two inaccessible objects by simple instruments for measuring angles vertically and horizontally.

Simple experiments to illustrate the parallelogram law, principle of the lever, efficiency of simple machines, laws of friction, use of balance, determination of specific gravities of liquids and solids.

SYLLABUS (FORM B).

VI.—Further course in mathematics, including mechanics and trigonometry.

The examination will consist of two papers of three hours each and a practical examination.

Syllabus.

1. *Algebra.*—Remainder theorem. Factors. Quadratic equations. Simultaneous equations. H. C. F. and L. C. M. fractions. Elementary propositions in ratio and proportion. Arithmetic and geometric progressions. Elementary theory of indices. Elementary properties of surds. Graphs of simple functions.

2. *Trigonometry:* (*a*) *Theory.*—Measurement of angles. Trigonometrical ratios and the relations between them. *Use* of the table of logarithms and of the trigonometrical ratios Trigonometrical transformations. Multiple and sub-multiple angles. Simple trigonometric identities and equations Solution of triangles.

(*b*) *Practical.*—Ratios of an angle by measurement. Area of an irregular field. Height of an inaccessible point. Distance from an observer of an inaccessible point Distance between two inaccessible points in a horizontal plane.

3. *Mechanics:* (*a*) *Theory.*—Definition of force. Representation of forces. Equilibrium of a body under three forces. Moments. Polygon of forces. Friction. Centre of gravity. Simple machines. Practical mechanical advantage, velocity ratio and efficiency.

Displacement, velocity, and acceleration ; composition of these. Elementary dynamics of rectilineal motion. Definition of momentum. Newton's laws of motion.

(*b*) *Practical.*—Extension of a spring. Moments. Levers for parallel forces. Verification of triangle and parallelogram of forces.

Friction. Centre of gravity. Determination of practical mechanical advantage and efficiency in the case of simple machines.

TURNER, F. C.

(i) I am strongly of opinion that there is validity in this criticism.

(ii) I see no prospect of reducing the rigidity of the system in the near future. Any relaxation under present conditions would lead to chaos What is wanted is that more intelligent examiners should be appointed and that the aim should be to ascertain the candidates' knowledge not of minute details of their subjects, but of those subjects as a whole.

VACHASPATI, SITI KANTHA.

(i) Yes.

(ii) Yes ; as regards general academical subjects, *e.g.*, literature, philosophy, political economy, mathematics, chemistry, physics, etc., teaching should be defined by prescribed examination requirements.

(*b*) and (*c*) May be followed with advantage in respect of technical subjects and applied science.

(iii) Some supplemental practical training for a fixed period should be provided for students in the professions of medicine, law, etc., after they pass their respective examinations.

VICTORIA, Sister MARY.

(i) Yes ; teaching is subordinated to examination. The reason for this is that the average student is so badly grounded that there is barely time to assimilate the facts necessary to be assimilated in order that he may be able to answer the

VICTORIA, Sister MARY—*contd.*—VIDYABHUSAN, RAJENDRANATH, and VIDYABHUSANA, Mahamahopadhyaya Dr. SATIS CHANDRA—WAHEED, Shams-ul-Ulama ABU NASR—WALKER, Dr. GILBERT T.

examination questions. There is no time for general culture or for reading round the subject which is being studied.

The teacher is hampered by the lack of general knowledge and intelligence. The better student has to be sacrificed to the general mass. If the examination questions were so framed that only the well-read students could answer them then the mass who merely memorises facts would be weeded out, and the failure to pass the examination might result in the raising of the standard of the school.

(ii) A rigidity of the syllabus is desirable under present conditions; but the syllabus should cover much less ground, text-books should not be prescribed, and the questions should be such as would preclude cram and would necessitate a wide reading of the subject.

(*b*) and (*c*) The colleges are not yet ready for these.

(iii) Examinations may serve as an adequate test for all here mentioned, except administration in the public service, commerce, and industry.

VIDYABHUSAN, RAJENDRANATH, and VIDYABHUSANA, Mahamahopadhyaya Dr. SATIS CHANDRA.

(i) Yes.

(ii) Yes.

(*a*) and (*b*) In all subjects the essays written during the year, or the researches made by students under the guidance of teachers, may be submitted to the University examiners and a certain percentage of the total marks be reserved for such class work.

(*c*) Yes; in respect of technical subjects.

(iii) The work done in laboratories, hospitals, workshops, and in professional bureaux may also be taken into consideration.

WAHEED, Shams-ul-Ulama ABU NASR.

(i) There is much validity in the criticism that in the existing university system teaching is unduly subordinated to examination. As I have stated in my answer to question 1 teachers and students concentrate too much of their energies upon the text-books and wide syllabuses laid down by an external agency for the purpose of examination and fall back generally upon notes, summaries, digests, model questions, and other devices, repeated year after year. Passing examinations is generally considered the goal of university education.

(ii) An attempt should be made to reduce the rigidity of the examination system.

(*b*) and (*c*) I would adopt the systems indicated and include oral or practical tests in some subjects and a consideration of the record and capabilities of the candidate. But this is feasible only under a centralised university of the teaching and residential type.

WALKER, Dr. GILBERT T.

(i) My experience as an examiner makes me say 'yes.'

(ii) I consider that the ideal system is the replacement of examinations by a lecturer's certificates. If a student has been industrious, and has consistently done the work given him by his lecturer, he has earned a recommendation from him which ought to be more trustworthy than marks got in an examination. A student's merits should [illegible]

ficate than by an examination in which the accidental element is liable to play an important part. Further, the teacher would not be tempted to 'cram' his pupils and could more easily aim at giving them the best education in his power.

The disadvantage of this alternative system is obvious; that the temptation of a teacher to favour particular pupils, and to give to his own men credit for more than they are entitled to, might be strong. I think it would be unsafe to introduce it as yet into Calcutta in connection with university examinations, though, for examinations confined to members of one college, it does not seem to me impossible.

At Cambridge examinations play a larger part than in most universities; but, even there, an employer seeking a man with particular qualifications would attach more importance to enquiries of college tutors than to the examination lists.

(*b*) and (*c*) Hence, I am in favour of relaxing rigidity, as suggested.

In general, the elementary examinations should be kept up and the more advanced modified or abolished. Thus, it may be convenient to have a fairly easy examination in mathematics, to be passed by all students in engineering, physics, economics, and higher mathematics; this might have a large number of candidates, and such an examination may avoid difficulties. On the other hand, advanced examinations (for science M.A.'s or M.Sc.'s) might be replaced by lecturers' certificates and a dissertation.

WATHEN, G. A.

(i) I believe that teaching is unduly subordinated to examination.

(ii) Something must be done to reduce the rigidity of the system, and I would favour lessening the number of public examinations and adopting something on the lines of the system prevalent at Bonn.

WHITEHEAD, The Right Rev. H.

(i) The existing University system is, I think, unduly subordinated to examination; but I do not see how anything can be done to improve matters under existing conditions. In the case of the honours courses it would be possible to make the examination system far less rigid.

WILLIAMS, Rev. GARFIELD.

(i) Undoubtedly; and to a disastrous extent.

(ii) Everything depends first on the elimination from the University of unfit students and unfit professors. That having been accomplished I should wish to introduce a system which would give the various departments of the University power to use their own discretion in the methods of teaching and examination they employ in their respective departments. I believe that methods of teaching and examination should differ in accordance with the specific needs of particular studies.

(iii) In none of the careers suggested is the present type of examination a satisfactory test. In all cases far more stress should be laid on oral and practical examinations held at intervals during the whole university course.

WILLIAMS, L. F. RUSHBROOK.

(i) So far as the experience of the present writer goes, in the United Provinces and the Central Provinces teaching is throughout dominated by the necessity of preparing for university examinations. But it should be remembered that the average teachers in the weaker colleges are sometimes so badly equipped with knowledge that they would be hopelessly at a loss were they asked to teach anything outside the text-book prescribed for examination. Students are, moreover, so badly prepared at school that, when they come to the colleges, they have no background of general knowledge, no intellectual curiosity, and a very imperfect acquaintance with the English language. Both teachers and students are thus driven to concentrate rigidly upon preparation for the examination if the very moderate standards now prescribed by the University are to be attained.

(ii) Any attempt to reduce the rigidity of the examination system would be attended, in the weaker colleges, by disaster. In such colleges the teaching is buttressed up by the text-book and the prescribed courses of reading. Until the level of the teaching were improved there would be a collapse of such standards as are at present realised. But it is doubtful whether the weaker colleges can be suffered longer to impede the progress of higher education in India. With the introduction of centralised universities of the new type weak outlying colleges would be at an inevitable disadvantage as compared with colleges at the University centre; and while every facility would be given to these colleges, at least during the transition stage, to send up their students for university examinations, yet by the mere process of natural selection their importance would gradually decrease. It would, therefore, seem that no undue weight should be attached to the effect which any reduction of the rigidity of university examinations would have upon them; for the stronger colleges the gain would far outweigh the loss. Competent teachers often complain of the iron fetters placed upon their enthusiasm and their freedom by a distant university board; and they would welcome any change in the direction of less rigidity. Indeed, such a change is almost a necessity, for only by its operation can the stronger outlying colleges develope along their own lines in such a manner as to constitute themselves the nuclei of future universities.

WORDSWORTH, The Hon'ble Mr. W. C.

(i) The criticism is valid; the defect obtains throughout our schools and our colleges. The generally accepted test of a good school or college is its examination successes This point of view is confirmed by the University regulations regarding schools that fail to pass a certain percentage of their pupils, and by the emphasis laid in reports on colleges on their examination successes.

(ii) (*b*) An attempt should be made to reduce the rigidity of the examination system according to the method outlined. Without some kind of examination there would be no incentive to work; as matters are in Bengal subjects not examined in are neglected by both teachers and students, nor is there likely to be any early change in this respect.

iii) The University should offer opportunities of examination, and so stimulate study and thought in all these subjects. I do not consider that a degree or diploma in teaching should be a *sine qua non* for a teacher's career, though the value of training should be consistently emphasised. Law should be studied in the University as part of the academic syllabus, not by way of entrance to the legal profession. Studies and examinations for this latter purpose should not be

ZACHARIAH, K.

(i) The criticism is, to a large extent, valid. The actual working of the University tends to subordinate teaching to examination.

In proof, I may adduce the following facts :—

(A) The boards and committees of the University regard the "paper" as the unit. In framing the details of a course of study the first principle, rigid as the law of the Medes and Persians, is that it should consist of 2, 3, 6, or 8 papers, as the case may be. Then subjects are fitted into the procrustean bed. A glance at the calendar will show that all the M. A. subjects have eight papers, all the B. A. honours six, and so on; and successful opposition was offered when an attempt was made to give a subject as many "papers" as it needed for adequate study. The objection raised was that if there were nine papers in, say, history, and only eight in other subjects, history lecturers would have to face empty benches! Recently, large numbers of university lecturers were appointed not to lecture on economics or philosophy, but to lecture on paper III of economics or paper VI of philosophy. In further proof of the extraordinary fact that the "paper" is the integer, the starting point, I may point out that while a single lecturer deals with those divisions of history which have only one "paper" those which have two are, in most cases, divided between two lecturers. Thus, one lecturer deals with the constitutional history of England, two or more with the economic history of England and India, both being studied equally from text-books for the most part. I believe the same principle is followed in the other arts subjects too.

(B) The lecturer or professor is also compelled to regard examinations as the end of teaching. His reputation depends largely upon his success in cramming students for the examination. He is tempted to exclude anything irrelevant, however interesting, and anything not likely to be set, however relevant.

(C) Students are interested in their subjects only from the point of view of examinations. I know of a case when a post-graduate lecturer was asked by one of his students not to give them any notes as someone else was setting the paper on the subject! The same lecturer—he was young, enthusiastic, and ignorant of Calcutta ways, let that be his excuse—while lecturing on Aristotle's "Politics" was requested by an honours student to abstain from comments and criticisms of his own on the text because they were no use for the examination. These cases are by no means exceptional.

Naturally, it is considered unfair to leave students unlectured to on any paper. Recently, when it was suggested that the few students of a certain "special subject" should be simply attached to a tutor, and not have regular lectures, this was thrown out as "unfair" because there were lectures on the other "specials".

(ii) I am strongly of opinion that the rigidity of the existing examination system should be reduced

(*b*) I am not in favour of this as a possible method. It may be sound in theory, but will not work well in Calcutta conditions. It might easily lead to confusion of standards, and almost certainly to cram. At present, one reason why students study books, and not merely notes, is their uncertainty as to who will examine them. This wholesome influence would be removed if it were adopted.

As an alternative I should like to suggest the following measures :—

(1) The "paper" should not be the unit for lectures, *e.g.*, there is no reason why a lecturer should not take up "constitutional history to 1485" and another lecture on "constitutional developments in the last century" and the intervening period be left to the student himself to work up.

ZACHARIAH, K.—*contd.*

(2) On the other hand, there should be courses of lectures on topics only indirectly useful for examination purposes.

(3) The singular system of "percentages" should be abolished. It is ridiculous that a student who has only attended 73·8 per cent of the lectures should have to approach a reluctant syndicate for permission to appear in the examination. The percentage system leads to evils—heavy lecture hours for students—15 or 20 in the week—which leave them little time or energy for individual work; often the abuse known as "proxy," which is extremely difficult to check in large classes; compulsory attendance at long courses of lectures by men who neither interest nor stimulate. In the case of students who study for the M.A. and law together the system forces them to be practically all day at lectures, without the chance of exercise or recreation.

(4) Tutorial exercises and informal instruction should, to a large extent, displace lectures, at least in all Honours work At present, they only "supplement" a self-complete system of lectures, and are little more than an additional burden.

(5) If a large number of questions is set in each paper, covering many aspects of the subject concerned, and if the student is expected to answer only a few, then he is encouraged, to some extent, to follow the bent of his taste and to delve deep into a few problems instead of cultivating a superficial acquaintance with the whole ground.

(6) Finally, I believe that the substitution of a three-years' honours course for the present B. A. honours and M. A., covering four years between them, would materially reduce the burden of the examination system. By this a year is saved, and an examination is saved, with no corresponding disadvantage. A Madras student may pass his honours B.A. at 20; a Calcutta student cannot take his M.A. degree earlier than 22. He would be a bold man who affirms that the latter is better educated. (See, for elaboration, my answer to question 5.)

QUESTION 10.

Have you any further suggestions to make as to the improvement of the existing methods of the University examinations?

ANSWERS.

ABDURRAHMAN, Dr.

Examinations are the chief motive power by which the system of university education is regulated in India. I have already referred to the evils of over examination in my answer to the previous question. Here I wish to draw attention to the necessity of the improvement of method.

(*a*) There is, no doubt, waste caused by the technique of learning all over the world, but the tremendous amount of such loss involved in the Indian system is unparalleled. The problem of educational economy is the first that should engage both expert and lay attention. The University should look after its scholars, as nature looks after the embryo in the mother's womb. The course of evolution runs from the simple to the complex. It is a continuous process in a straight line. Nature does not admit any ingredient which the body cannot assimilate and make its own. Nature knows frugality and avoids waste.

The University should, likewise, restrict itself to direct training. There can be, roughly speaking, three methods in which the University course of study can be arranged: -*concentrated*, in which the course is confined to a particular subject; *co-relate l*, in which all the subjects are grouped round a main subject; and *scattered*, in which the subjects are disarranged. In the Calcutta University the intermediate curriculum and examination interrupts the continuity of learning, and scatters and disarranges the course. Every student starts with a new programme of study after two years of education, with the result that neither of the two different courses can be properly worked over and comprehended. Short and unrelated intermediate and graduation courses prove mutually resisting factors and give a negative result each way. The University must not teach a subject which it means to discontinue afterwards. A student who intends to graduate in political economy should not be taught logic and history in the intermediate, nor one who intends to obtain a law degree political economy. Like Nature the University should economise. The intermediate examination should be abolished, and the university course for graduation should be extended over four years, with a college examination in the end. It might be advanced that the intermediate education serves as a formal training for the graduation subjects. The investigations carried on by Drs. Sleight and Lewis have shown results entirely unfavourable to such formal training. "The balance of expert opinion is now so solidly against the general dogma that, as educational force, it must be regarded as moribund. It cannot be denied that within certain narrow limits, determined by the distribution of common elements, there is transference of power from the study of one subject to the other. But the transference is so small as to make it practically negligible for educational purposes."

(*b*) The sixth quinquennial report on educational progress in India refers to the subject of research in these words: -"The provision of facilities for research cannot be postponed. In almost every branch of science and the arts, in philosophy, history, geography, language, literature, economics, sociology, medicine, public health, agriculture, biology, geology, botany, and in all the sciences applied to industry, not to particularise more closely, there is a wide untrodden field awaiting research. Among the essentials are good libraries, laboratories, and collections, ample leisure and freedom in study, systematic collaboration of professors and students, an atmosphere engendered by the simultaneous working of many

ABDURRAHMAN, Dr.—*contd.*

minds on numerous, but interdependent, branches of research ". But, does the examination system in all the Indian universities give the teachers and their pupils that " ample leisure and freedom of study " which is necessary for the " systematic collaboration of professors and students ? " Examinations may be a test of determining the general knowledge of the student, and may compel him to carry over a considerable period the details of the subject he is pursuing, but they are unproductive and do not add to knowledge. They may be suited for certain educands who need more of discipline than of education. But there are also educands who cannot be forced or hurried by examinations. They act in accordance with the creative impulse that comes from within. Examinations cannot reach them. Their faculties can be better approached by research education than formal study. The Indian universities neglect research at the expense of exammations. The continental universities may, to some extent, be said to neglect formal training at the expense of research education. A combination of research and the examination system represents the happy mean. In Oxford a student can either take the B.A. degree by examination or the B. Sc. or B. Litt. degree by presenting a dissertation. The Calcutta University should adopt the system and permit its students the option of proving their educational fitness either by appearing at an examination conducted through the means of papers and *viva voce* or by submitting a thesis embodying original research.

There should be no fear that the dissertation system will not work well in practice if the standard set is a high one. No objection can be raised against it that does not apply with greater force to examinations. There is also no reason why, in course of time, the different colleges of the University should not match their dissertations like Columbia and Cornell.

It is sometimes said that the books written by Indians in general are not so profound, careful, and learned as those by Englishmen. But the same can be said about English books as contrasted with continental productions. Unless the universities undertake to train the students in methods of research, impressing upon them the necessity of keeping in view the limitations of a fact, and the proper narrowness of the subject under treatment, the authors of a nation are likely to push forward their hypotheses beyond the boundaries of their proper enquiry. If the University of Calcutta wishes to free the Indian mind from some of its mediæval ways of thinking it should change the method of university work and lay more stress on research than on examination.

(*c*) I do not view with favour examination by compartments. But the examinations should, as in Oxford and Cambridge, be held quarterly, so that a student who fails at any test may reappear for examination in the next quarter. Indian students who receive their education in a foreign language certainly stand more in need of such a rule than English students. The chief reason for an examination is to determine a pupil's fitness for doing profitably a higher grade of work. A year's " wait " which does not result in any positive acquisition, but only weakens the will to achieve, and fills the mind with unnatural dread, can only yield but negative results. In India the fear of examinations is frequently a cause of suicide among college youths.

Again, a student who fails in any subject at the test should be re-examined in that subject alone.

(*d*) Not more than one examination of more than three hours should be given on the same day. Further labour transgresses the rules of examination hygiene recognised by all educationists.

(*e*) Generally speaking, questions asked should be such as call for method, rather than fact, in their answer. The great educator Paulsen thinks that for most men examination does not afford a good opportunity to appear in a favourable light.

(*f*) The results of the Calcutta University have for some years past shown variation, and the characteristic of such variation has not been a fall, but a rise, in general.

ABDURRAHMAN, Dr.—*contd.*—AHMED, Maulvi KHABIRUDDIN—AHMED, TASLIMUDDIN, Khan Bahadur—AHMED, Maulvi TASSADDUQ.

doubled and head examiners were appointed, but their appointment has only proved that the rise is normal, and due to no unfairness or other objectionable reasons. There has also been a fall in certain percentages and, in the absence of any worked-out figures, I can only say that the point of rise and fall has not gone up or below more than ten to twenty per cent. If the percentage had dropped, instead of having recovered, the change is such as would never have been noticed at all.

The attack is not scientific, but arbitrary. It is stated over and over again that the efficiency of the teachers has improved, that the second-rate colleges have been brought to the standard-level, that the control of organisation has been perfected, and that people have become more at home with western learning. Should not all this lead to a recovery of results ?

There is no greater fallacy in education than of classification. To class Indian students in a particular way in the seventies or eighties, and then to treat them ever after as necessarily belonging to the class selected, constitutes a more serious educational danger than the fluctuation of results. On the other hand, the changes that have taken place bear a definite meaning and give information of the progress of English education in Bengal.

AHMED, Maulvi KHABIRUDDIN.

I think it desirable to allot some marks for physical exercise and games, to be awarded by the headmaster or the principal, and there ought to be some mention of the candidate's aptitude for games in the University diplomas or certificates.

At each stage of the University examination some amount of independent work should be demanded from the candidate by requiring him to submit a thesis on the work done by him besides his ordinary studies. The paper may be in the vernacular.

AHMED, TASLIMUDDIN, Khan Bahadur.

My suggestions are :—

(*a*) That the roll number should be used, instead of the name of the examinee, on the answer paper.

(*b*) That a fair number of Muhammadans should be appointed as paper setters and examiners of papers.

(*c*) That, when application is made for the re-examination of a paper, it should be examined by another examiner.

(*d*) When a student is plucked by one mark only, he may be considered to have passed.

AHMED, Maulvi TASSADDUQ.

In all examinations the answer paper should have only the roll number of the candidate. The candidate should not be required to write his *name* on the answer book. Objection might be raised to this on the ground that it may lead to confusion and error ; but this can be avoided if the University marks the roll and the number on the blank answer books according to the descriptive nominal roll of candidates. This procedure is all the more necessary for the system of examination which I have advocated elsewhere.

AHSANULLAH, Khan Bahadur Maulvi—AIYER, Sir P. S. SIVASWAMY—ALI, Nawab NASIRUL MAMALEK, MIRZA SHUJAAT, Khan Bahadur—ALUM, Sahebzadah MAHOMED SULTAN.

AHSANULLAH, Khan Bahadur Maulvi.

The examinations under the federal university should be conducted by written question papers as now. The usual mark system should be employed in valuing answers to question papers. Books should be prescribed in the case of literature, but they should not be set for examination in other subjects except in so far as may be required to indicate the standard. In a teaching and residential university the examination should be conducted both by written and oral tests. In estimating a paper the examiner should note by a remark (such as passable or not, and, if passable, whether good or medium) his general impression of the paper as a whole Papers which have secured pass marks, but have not borne the test of the examiner, should be returned to the paper setter for re-examination, with a note.

I strongly condemn the present system of setting several alternative questions in each paper, and of circulating special instructions to examiners regarding the valuing of the answers to the questions set. The questions do not ordinarily require a high standard of proficiency on the part of the examinees. The setting of too many alternative questions lowers the standard of the examination, which is already too low. The instructions to the examiners to award full marks for partial answers tend to lower the standard still further. Such instructions appear to be an undue and unauthorised interference with the discretion of the examiners.

AIYER, Sir P. S. SIVASWAMY.

The system of appointing external examiners is now under trial in this University. Students of colleges in which the members of the staff happen to be university examiners enjoy an advantage over the students of other institutions. It is difficult to suggest a suitable remedy.

ALI, Nawab NASIRUL MAMALEK, MIRZA SHUJAAT, Khan Bahadur.

Yes; by giving students a second chance in passing in the subject in which they have failed.

I suggest that the examinees should not write their names on the answer papers, but only give the roll number for the information of the registrar, who should apportion another number to each for the guidance of the examiner. This will prevent the examinees knowing who are their examiners and *vice versa*.

ALUM, Sahebzadah MAHOMED SULTAN.

If any examinee obtains high marks in other subjects and fails in one subject he should be allowed to appear again in a subsequent examination held three or six months later on that subject only. In that case, the examinee will be able to devote his full time to that subject. Under the present system a B. A. student who passes in English and fails in philosophy has to appear with his text-books in English changed. He has to devote a good deal of time again to English, and may not acquire a good knowledge of philosophy.

I would suggest that those students who hold certificates of passing the higher standard of vernacular, such as Arabic or Sanskrit, from the Calcutta Madrassah or Sanskrit College may be exempted from appearing in those languages in the Matriculation, I. A., and B A.

Further, roll numbers, and not the names of the examinees, should be supplied to the examiners, so that the examiner may not be prejudiced against the examinee on account of racial feelings.

Aziz, Maulvi Abdul—Banerjea, J. R.—Banerjea, Dr. Pramathanath—Banerjee, Sir Gooroo Dass.

Aziz, Maulvi Abdul.

Arrangements should be made so that the examiners cannot know the names and nationalities of the examinees. Mussalmans, with this object have for several years been asking the syndicate to direct the examinees to write their roll numbers only, and not their names, on the answer papers. This prayer should be granted. Besides, it is essentially necessary that there should be a controlling body, consisting of Europeans only, over the question papers.

Banerjea, J. R.

The papers set should not contain alternatives of the description one sometimes meets with. One alternative is difficult, the other easy. Most students choose the latter and so it turns out that though a paper may contain problems which are a real test of ability and intelligence, many of them may be avoided and yet a student, by choosing the easy alternatives, may get high marks.

Banerjea, Dr. Pramathanath.

The courses of studies for the different examinations should be so framed as to make it possible for students to acquire a rough general knowledge of the elements of the most important subjects of study before passing the matriculation and intermediate examinations, and to specialise in those subjects which they consider their own when they proceed to the higher examinations. For the matriculation and intermediate examinations a fairly large number of subjects may be prescribed, but candidates may be declared successful if they secure the required aggregate of marks without passing in a particular subject; or the marks required for a pass in each particular subject may be fixed so low that any diligent candidate may easily get a pass, the aggregate being fixed comparatively high. Further, for all examinations the provision ought to be made that if a candidate has secured very high marks in one subject, but failed in others, he should be declared successful. I would also advocate a system under which a candidate who has passed in one or two subjects, but failed in others, may be permitted to proceed to the higher examinations in the particular subjects in which he has been successful. In such cases, however, special certificates, as distinguished from the ordinary diplomas, ought to be given.

I consider it desirable to relax the rigidity which now prevails in the system of marking the answer papers. I admit that, where the number of examiners is large, it is necessary to adopt some method which ensures uniformity of results. At the same time, it is desirable to guard against the method becoming too mechanical. I would, therefore, suggest that only a certain percentage of the total of marks in any question paper should be allocated to the different questions and the remaining marks left to the discretion of the examiners.

Banerjee, Sir Gooroo Dass.

My suggestions as to the improvement of the existing methods of university examinations are contained in two of my books, namely, *A few Thoughts on Education*, at pages 189 to 202, and *The Education Problem in India*, at pages 153 to 166, and I beg leave to refer to those portions of the two books as being my answer to this question.

I would only sum up by adding:—

(*a*) That it should be borne in mind that examinations must be tolerated as a necessary evil.

(*b*) That neither their number, nor their duration, should be increased beyond the limits of strict necessity.

(*c*) That they should be intelligently and judiciously conducted, and examiners should not be hampered by too many mechanical rules.

(*d*) That no examination should require from examinees reproduction from memory, in the examination hall, of unimportant details of any subject, and that examinations should aim at testing the knowledge and intelligent understanding of the broad principles of a subject.

BANERJEE, JAYGOPAL.

Examination by compartments should be adopted. Some means ought to be devised for taking into consideration whether the work done during the college course of two years by candidates for university examinations has really been *systematic, methodical*, and *regular*. The relative merit of candidates can hardly be tested by a single examination at the end of two years. The element of *accident* and *chance* in deciding a candidate's fate plays too prominent a part. A less mechanical uniformity of standard from year to year should be maintained. At present, the examinations are carried on in an extremely mechanical fashion by a very rigid system of rules which leaves the examiners no option of distinguishing answer papers of real worth from mediocre ones. A larger amount of freedom, safeguarded by a more responsible and careful selection of really able and qualified examiners, ought to be granted to examiners.

Examiners should be generally elected from men who are actually in touch with teaching work and, only in very exceptional cases, outside gentlemen should be appointed. The present system of demanding within a limited time the marking of a large number of answer papers is positively mischievous, and tends to encourage hurried and careless work. It is not also altogether wise economy to lower the scale of fees allowed to examiners if good work is required—adequate remuneration for honest work being, of course, absolutely necessary. Paper setters should not frame question papers independently, but should meet for consultation and all question papers should be carefully moderated by the entire body of examiners assembled together. It is highly desirable that the colleges should have every opportunity of knowing precisely what standard of excellence the University aims at and demands and not left, as now, entirely in the dark.

BANERJEE, Rai KUMUDINI KANTA, Bahadur.

A *viva voce* examination should be held along with the written examination. But the very large number of candidates is in the way.

BANERJEE, M. N.

Wherever possible, especially in science, the examinations should be, as in medicine, written, oral, and practical.

BANERJEE, MURALY DHAR.

All the arts and science examinations, like those for the M.B. and B.L. degrees, should be divided into two parts, examinations in each part of the course being held every year. Unsuccessful students should be exempted from attending lectures in, or appearing again in, a subject forming part of a year's course if they have once passed in it. This will prevent cramming and undue strain on the energies of students and lead to a better mastery over the subjects studied.

BANERJEE, RAVANESWAR.

The following suggestions may be considered :—

(*a*) Men outside the teaching profession should not be appointed paper setters or examiners.

(*b*) Questions should be framed to test the attainments of the candidates in the subject for examination. At present, the questions set on Vernacular and the second languages are calculated more to test the candidates' knowledge in English, than their knowledge in those subjects.

(*c*) One paper should be set each day.

BANERJEE, SASI SEKHAR.

Up to the intermediate stage there need be no change in the existing method of University examinations. But, at the degree stage, I believe it will be advantageous if examinations be conducted by compartments, so that in the final year students may be able to concentrate their attention and energy on those branches of study in which they intend to specialise. This suggestion has reference to theoretical examinations, but practical examinations in science subjects will be much simplified if the laboratory records are taken into account in the manner already suggested.

I have discussed elsewhere how far the vernaculars may be made the medium of examination.

BANERJEE, UPENDRA NATH.

In order to provide better facilities for the education of students every university examination, such as the matriculation, intermediate, B.A., M.A., etc., ought to be held twice in the course of the year, and plucked students should not unnecessarily be required next year to appear again in subjects they passed the previous year; they ought not, therefore, to be taxed without any sufficient reason for doing this.

Complaints are always raised in connection with the selection of text-books. Good or proper text-books are not always selected, moreover, these books do not always suit the capacity, age, merit, or ability of the boys concerned. The selection, therefore, sometimes becomes rather unwise or injudicious. Books on hygiene are taught only to the boys of the lower or infant classes, whereas boys even of the higher classes are kept entirely ignorant of the elementary principles of such important sciences as botany, agriculture, chemistry, physics, etc. Even the text-books thus wrongly selected are not completely gone through though there is every reason that they should never be rejected until finished, irrespective of the number of years taken for their thorough or complete study.

Sufficient freedom ought to be allowed to schools in the selection of their text-books, and inspectors and deputy inspectors ought not to handicap the school authorities properly constituted and fully qualified to manage the affairs of the school independently irrespective of Government grant-in-aid.

In connection with the study of mathematics and Sanskrit, it may be said that these subjects, as far as their selection by matriculation students is concerned, should be made optional.

Greater option should be given to boys in the selection of their subjects.

Number of alternative questions to be increased as far as the examination of boys is concerned.

It cannot be easily understood why private students are not allowed to appear in the University examinations without being required to belong to some school or college for a fixed period for the fulfilment of their object.

The object of the examination of students is really to test the knowledge of students in subjects actually taught to them in the course of the year, and not to harass them or make them fail by any means, with all the skill, ingenuity, or learning that the

examiner is able to command. The examiners, therefore, are not expected to show their whims or the vastness of their learning in any special subject. Things asked at the time of examinations should not differ in nature from the things taught. In case of any doubt on the part of students, or any ambiguity in the nature of any of the questions, questions are to be fully and clearly explained by the examiners or guards without any objection or hesitation so that the examinees may not labour under any misconception as regards the meaning of the examiners.

The percentage of minimum pass marks in English and Bengali and other vernaculars seems to be high. In the case of English, it ought to be reduced from 40 to 30 and, in the case of a vernacular, from 36 to 30, especially as English is a foreign tongue, difficult for Indians to master, and good teachers of English are hardly to be found, in consequence of which it is not always properly taught; and failure to pass even in the vernaculars tends a great way to discourage boys at the outset.

BANERJI, MANMATHANATH.

I submit the following suggestions for the improvement of the existing methods of examinations :—

(*a*) I wish to emphasi e that the questions should be spread over the whole of the course carefully.

(*b*) The standard should not vary in the same subject and efforts shou'd be made to equalise the standards in point of difficulty in the different subjects.

(*c*) Examination papers should contain questions designed to test the general intelligence and general training of students in the particular subjects to the extent of half the marks. Half the marks should be allotted to more difficult questions requiring a thorough understanding of the subject of the paper.

(*d*) There should be no particular allotment in the percentage of marks in any paper, according to regulation, thereb splitting the subject of the paper into distinct portions.

(*e*) Every examination should be held twice a year.

(*f*) Provision should be made to allow students to pass who obtain 40 per cent in the aggregate, and fail in not more than two subjects, by passing these subjects only at the next six-monthly examination. This is meant only for examinations up to the graduate stage.

(*g*) Some recognition of the result of the college tests is necessary in the final examination. Thus, for example, 25 per cent of the marks in a subject should be computed from the record of college examinations, which should be more carefully conducted than now. The pass marks in a subject may, consequently, be raised.

(*h*) Supplementary examinations should be held in order to give a further chance to deserving students who could not sit on account of sudden ill-health.

(*i*) Incidentally, I may add :—

(i) The percentage of attendance at lectures should be lowered.

(ii) The age limit abolished.

(iii) Students should be allowed to sit at any examination without further attending lectures if they have once failed in an examination.

(iv) Provision should only be made for attendance in a course of practical work if students take up a science subject.

BANERJI, SURENDRA CHANDRA.

In the university examinations there should not be any choice of questions—if the examinations are conducted on the lines briefly outlined in my answer to question 9, at least up to the intermediate standard. For, up to that standard students are being grounded for subsequent higher education, and it is highly desirable that they

BANERJI, SURENDRA CHANDRA—*contd.*—BANERJI, UMACHARAN—BASU, P.—BASU, Rai P. K., Bahadur

have a good and thorough grounding in the fundamental arts and science subjects and this cannot be secured unless the choice of questions is withheld. A choice of questions may be justified in the higher examinations, at which students are expected to have specialised in some subjects.

BANERJI, UMACHARAN.

For the improvement of the existing methods of University examinations the following suggestions can be made:—

(*a*) Due cognisance should be taken of students' work, as tested by periodical class exercises and examinations.

(*b*) The qualifications of students in respect of physical exercises and their moral capacities should be duly considered.

(*c*) There might be practical, as well as theoretical, courses of physical and moral culture. The examinations should be adjusted to the requirements of the courses.

BASU, P.

Questions should be so framed as to test the student's capacity to assimilate cognate matters, and his training to follow the logic of any continued course of argument. At present, questions mainly deal with particular facts or arguments which can be answered satisfactorily by summing up the texts and reproducing the same from memory. In awarding marks the examiners draw up the points involved in the answering of the questions and deal out marks according to the number of points tallying with that. Memorising and cramming must prosper in such a system. Nor does the system help to test even the student's memory. The evils arising from this system may be, and has, in some papers, actually been, removed by offering various questions giving the student a proper choice by which he can attempt to show himself at his best. The evil of cramming may be minimised by limiting the number of questions and foregoing the practice of allotting marks by counting up the points involved. The nature of the questions must be such as to test the general intelligence of the student, based on the facts of the texts prescribed. The answers should be so many essays evidencing the capacity of the student to sustained logical thought and his grasp of the subject as it is evolved through the arguments in the course of the essay. He should not be credited for merely giving facts if he has not got the art and logic to put them in proper sequence and with their due importance. He may omit one or two important points, but this logic must be able to show up the rest of them in a good light and justify or palliate the omission by the constructive presentation which he offers instead. Except in examinations on English literature the languge itself should not form a prominent part of the test. The difficulties attendant on expression in a foreign language must be realised and the inevitable shortcomings condoned. Some credit, however, should be given for expression and style. In the examination of English language and literature, of course, this must be one of the most important factors in allotting marks.

With regard to the carrying on of examinations it may not be a bad reform to give the names of candidates to the University office, and the overleaf of the examiner's writing should contain only the roll and the number, and not the name of the candidate. This would not entail any additional cost or trouble; the tabulators can easily fix the marks obtained against the number and the name previously printed for the purpose. Any possible abuse of the examiner's power may be prevented in this way. The examination for the Indian civil service is conducted in this way.

BASU, Rai P. K., Bahadur.

I would suggest the examination being partly oral in subjects other than the vernacular of the candidate.

Bengal Landholders' Association, Calcutta—Bethune College, Calcutta—BHANDARKAR, Sir R. G.—BHATTACHARYA, KRISHNACHANDRA—BHATTACHARYYA, BAIKUNTHA NATH—BHATTACHARYYA, HARIDAS.

Bengal Landholders' Association, Calcutta.

We have an impression that the question papers are not well scrutinised and moderated, and that the answer papers are too closely examined. Sufficient attention is not paid to ascertain the extent of the knowledge of the student in the subject in which he is being examined. Too much attention is paid to punctuation, spelling, and grammar.

Bethune College, Calcutta.

Sen, P. N.
Mukerjee, B. G.
Bhattacharya, K. C.
Sen, P. C.
Chatterjee, K. B.
Chowdhury, B. K.
Roy, D. N.

To prevent a stereotyping of the standard outside examiners should, as a rule, be appointed for the M.A. examination, jointly with the M.A. teachers of the University.

BHANDARKAR, Sir R. G.

In addition to certain specific requirements for our highest examination a candidate should be required to submit a thesis, or dissertation, calculated to show a spirit of research and originality of conception on a subject laid down by the University. The nature of this dissertation will enable the judge to ascertain whether the candidate has derived real benefit from his course of instruction and has proved himself to be a man of sound general culture.

BHATTACHARYA, KRISHNACHANDRA.

To prevent a stereotyping of the standard a sufficient number of outside examiners should, as a rule, be appointed for the M.A. examinations in every subject, jointly with the teachers of the subject in the University.

BHATTACHARYYA, BAIKUNTHA NATH.

In every subject of an examination the written test should be supplemented by an oral one to ascertain depth, grasp, power of expression, and resourcefulness

BHATTACHARYYA, HARIDAS.

The test examination system should be abolished, and only those that fail to show good weekly or monthly records should be tested before being sent up.

In the intermediate and the B.A. and B.Sc. pass courses students should be given the option of being examined on some minor subjects at the end of the first and the third year, respectively, and on other minor subjects at the end of the second and the fourth year, respectively. If they fail at the end of the first and the third year their promotion should not be stopped and they should be allowed to offer themselves for the whole group of minor subjects at the end of the second and fourth year, as now. The examination in English should, however, be held at the end of the second and the fourth year, respectively. A student should be exempted from further examination in a subject in which he has passed.

In the honours course the examination on minor subjects may be held at the end of the third year. If a student fails in a particular subject he should be re-examined in that subject alone at the end of the fourth year. The honours subjects may be divided into two courses, each course to be optionally finished in one year or the whole course at the end of the fourth year.

BHATTACHARYYA, HARIDAS—*contd.*—BHATTACHARYYA, Mahamahopadhyaya KALIPRASANNA—BHOWAL, GOVINDA CHANDRA.

There might be an optional *viva voce* examination for honours and M.A. and M.Sc. candidates, and a special fee should be fixed. Candidates passing in this examination should have their names marked with an asterisk in the *Gazette*, but should obtain no other benefit.

If the June examination cannot be avoided the M.A. course may be divided into two halves. The optional subjects may be finished at the end of the fifth year and the compulsory ones at the end of the sixth year, the order of merit being determined by the marks in the compulsory papers.

If the course system be adopted there should be one paper each day so far as practicable. If two papers cannot be avoided each paper should be of two and a half hours' duration and there should be an interval of one hour between the two papers.

A student who has passed the M.A. examination in some optional branches of a particular subject should be allowed to offer himself for examination in other optional branches of that subject without being compelled to sit for the compulsory papers as well. A certificate, indicating the division in which he has passed in these, should be given. If a candidate wishes to improve his division he should appear in the compulsory, as well as the optional, branches, but he should not be entitled to any prize, medal, or scholarship on the results of such examination.

A fixed percentage of matriculation examinerships should be reserved for headmasters of affiliated schools and qualified ladies.

In the B.A., B.Sc., M.A. and M.Sc. examinations examiners must have a minimum teaching experience of three years if they are not doctors in the subject they examine. I am, however, opposed to the principle of concentrating higher examinations in as few hands as possible.

In the choice of examiners preference should always be given to men actually engaged in teaching identical or cognate subjects, and *a non-academic examiner should be appointed only if he is a specialist.* Even then a percentage of non-academic examiners should be fixed.

A special medal or prize should be awarded to the candidate who obtains the highest marks among those that secure first-class marks in *all* the papers in the M.A. or M.Sc. examination.

In the honours and post-graduate examinations there should be a double cover in an answer paper. On the outer cover the examinee should put down his name and the roll centre, but not the roll number. The registrar should put down the same arbitrary number on both the covers and send the answer paper, with the inner cover only, to the examiners. The examiners and the tabulators should be provided with the number sheet of candidates, but not names, and students should not know their numbers.

For the sake of symmetry candidates in B.A. honours and M.A. mathematics examinations ought to keep the same percentage of marks to secure a particular division as candidates in other subjects.

BHATTACHARYYA, Mahamahopadhyaya KALIPRASANNA.

In the higher examinations of some subjects at least a *viva voce* test may also be introduced.

BHOWAL, GOVINDA CHANDRA.

(*a*) Teachers in particular subjects of an examination should not be paper setters and examiners in those subjects in that examination.

(*b*) Examiners should be selected carefully, and with special reference to their qualifications.

(*c*) Plurality of examiners is a defect in the existing method. If the defect is not avoidable it should be minimised as far as possible.

The dates fixed for the matriculation, I.A., I.Sc., B.Sc., and B.L. examinations are not convenient and suitable. A two-years' course for the M.A. and M.Sc. examinations is objectionable on many grounds.

BISWAS, CHARU CHANDRA.

With a view to improving the existing methods of University examinations I would suggest the following:—

(*a*) Examinations should be conducted by those who teach, especially in the case of the examinations above the intermediate.
(*b*) Abolition of the mechanical system of valuing answers, especially in the case of the higher examinations.
(*c*) More copious introduction of practical work in science courses.
(*d*) Increasing reliance on record of work in the class-room and the reports of professors.
(*e*) Abolition of a separate test examination in colleges as a preliminary condition of admission to the University examination.
(*f*) Introduction of oral tests, as supplementary to written examination, wherever practicable, especially in doubtful cases.
(*g*) Introduction of a colloquial test in English as an optional measure.
(*h*) Setting of simple questions to test genuine capacity.
(*i*) Thesis for advanced students, in lieu of written examination, at candidates' option.
(*j*) Examinations by compartments, where practicable.

BISWAS, SARATLAL.

As regards scientific subjects the examiners should, during the practical examinations, question the candidates orally to test the range of their knowledge in the subject. In other subjects there should be oral examinations for a similar purpose.

This procedure will prevent a candidate from passing an examination by studying only a few important portions of a subject, and thus compel the acquirement of a more complete knowledge in it.

BOROOAH, JNANADABHIRAM.

Kindly refer to my answer to question 8. There should be degrees in vernaculars such as Assamese, Bengali, etc.

BOSE, G. C.

I beg to offer the following further suggestions for improving the existing methods of University examinations:—

(*a*) At present, at all the examinations, from the highest to the lowest, each question is marked; and, at the time of examining the answers, each answer is divided into so many points and the total number of marks allotted to the question is sub-divided among the points, just what a horse-dealer does in judging a horse. This method of valuing the answers takes away from the examiner the liberty of judging the answers as a whole and makes the examination wholly mechanical. To my mind, all the answers given to one set of questions should be judged as a whole and valued accordingly either by assigning marks in a lump, or, better still, by assigning remarks such as deserving a "third class", or a "second class", or a "first class", or "no class" at all. All first-class marks, or remarks, may subsequently be judged or valued, if necessary, to settle the order of merit.
(*b*) At present, papers on a subject at all the examinations from the matriculation to the B.A. and B.Sc. standards are set by persons who have not taught that subject; and at all the examinations above the B.A. and B.Sc.

stage are set wholly by persons who have taught the subject, occasionally an external paper setter being coupled with them. Teachers of a subject are, however, not debarred from examining the answers in the first set of examinations, whereas in the second set of examinations the teachers of the subject who have set the papers are, as a rule, the only examiners in that subject. To my mind, this disparity should be removed. For the higher examinations, at least, external examiners should be coupled with the internal examiners both in framing the questions and valuing the answers.

(*c*) The intermediate examinations may be done away with as a formal University test; and, whether the period of study from the matriculation to the B.A. or B.Sc. stage should be reduced from four to three years is a point well worthy of serious consideration.

(*d*) To be eligible to appear at University examinations compulsory attendance at lectures need not be insisted upon. It appears to me that if attendance at lectures be made voluntary they (the lectures) will be a better means of instruction by eliminating the undesirables and attracting the desirable ones. In fact, all mathematically rigid regulations (and this is one of them) tend to sacrifice the genuine spirit of education at the altar of a fictitious fetish set up in its place.

(*e*) For the examinations at the post-graduate stage, at least, an additional *viva voce* by two examiners, one internal and one external, will be a more efficient test.

BOSE, Sir J. C.

I think that, for the present, examination could be held through the medium of the vernacular up to the intermediate standard. But at all stages there should be distinct encouragement of the practical knowledge of English, as this would open to them up-to-date knowledge and culture of the West.

BOTTOMLEY, J. M.

I desire to call attention to one important point which has been brought to my notice while examining mathematical papers in the B.A. and B.Sc. examinations, both pass and honours. That is the extraordinary lack of care with which the questions, have been chosen.

To one who knows the method of study adopted by the average student, *viz.*, the working out carefully of all examples in the usual text books, it would seem of the utmost importance that in setting papers the examples to be solved should be "new"—to the student at least. And, yet, time and time again, examples have appeared for solution which appear in books from which examinees are in the habit of reading. It is obvious that an examination conducted on such principles is much more a test of good memory than of mathematical ability.

BROWN, Rev. A. E.

We consider that papers should never be set by professors who have delivered lectures within the area of the University on any part of the course covered by that paper. This gives an obvious advantage to the paper setter's own students and causes even other students to "cram" his lecture notes.

CHAKRAVARTI, CHINTA HARAN—CHANDA, The Hon'ble Mr. KAMINI KUMAR—CHATTERJEE, The Hon'ble Mr. A. C.—CHATTERJEE, RAMANANDA.

CHAKRAVARTI, CHINTA HARAN.

The following suggestions to improve the existing methods of University examinations may be considered:—

(*a*) No examination should be held during the hot season of the year.

(*b*) Candidates should not be examined in more than one paper a day.

(*c*) The paper setters and examiners, especially of the matriculation examination, should, as far as possible, be selected from the members of the teaching profession.

(*d*) In every examination certain marks (equal to those of a main subject of the examination) should be allotted to the candidate's actual work in his school or college. The headmaster or the principal should, in consideration of the candidate's daily work, progress in studies, and general behaviour in, and outside, the school or college, give him what marks he may deserve. No candidate should pass the examination unless he secures the minimum pass marks in this personal estimate of his work.

CHANDA, The Hon'ble Mr. KAMINI KUMAR.

I would suggest that examinations should be sifting to see if there has been real acquisition of knowledge on the part of the examinee by limiting the questions to important matters only so that the boy need not overburden his memory by trying to learn everything by rote. At present, much ingenuity is spent in discovering possible matters which may have escaped the student, and questions are put thereon. This serves no useful purpose and should be put an end to.

I would recommend examination by compartments so that if a student gets high marks in one subject, but fails in another, he need not be subjected to a fresh examination in the former.

I would also supplement the result of examination by the progress report of the boy in his class. Sometimes it happens that a brilliant boy is prevented by accidental circumstances from attending the examination. I would give him a pass certificate, but not honours. Similarly, if he is only able to sit for a part of the examination, I would give him a pass certificate, provided that his progress report is satisfactory. It ought not to be impossible to frame regulations to prevent abuse.

I would, in this connection, suggest that, where it is found that a student has a special aptitude for any particular subject and secures good marks in it, but fails to pass in other subjects, he may be given a suitable certificate.

CHATTERJEE, The Hon'ble Mr. A. C.

The examinations, written, practical, and oral, should be so conducted as to test the student's power of thought, investigation, and expression, and not merely the extent of his book knowledge. There should be a sharp difference between honours and pass students and, in the case of honours students at least, the number of subjects of study should be smaller than at present (the *general* grounding having been secured before, or at, matriculation). Students should not be allowed to appear at the same examination more than twice and, in the case of honours students, more than once.

There should be greater elasticity in the matter of giving degrees. For instance, a student incapacitated by illness may be given a degree on the recommendation of his teachers.

CHATTERJEE, RAMANANDA.

Accurate and complete records of progress and work of students of all college classes preparing for examinations may be kept, and be open to inspection by the

CHATTERJEE, RAMANANDA—*contd.*

University. If a student fails in an examination, but is found, on reference to his class record to have done very well, he should be entitled to pass, but not to have any place in order of merit. Colleges not keeping such records would lose this advantage; that should be the only penalty for not keeping such records.

As noted before, I favour the system of examination by compartments or instalments.

A college or university student who fails according to the regulations, but is found to have done exceptionally well in any subject, obtaining more than 90 per cent of the maximum marks, should be entitled to pass.

If a college student fails in an examination, and obtains 60 per cent or more marks in any subject, he should have the option of pursuing higher studies in college in that subject alone without passing the lower University examination. For example, a "plucked" student who has done well in English, and does not wish to have a degree, may, nevertheless, join the B.A. English classes of a college, sit for the B.A. English University examination, and, on passing, obtain a certificate stating merely that he has passed in the English course prescribed for the B.A. examination.

Questions in University examinations should be so framed as to discourage cram, though it is impossible entirely to prevent cramming.

While the B.A., B.Sc., M.A., and M.Sc. degrees should be ordinarily given after the examination of candidates they should also be granted for good research or other original work done. I quote below the rules of a few British universities in this connection. Others may be quoted from the regulations of other British and American universities:—

University of Manchester, Prospectus of the Faculty of Science, 1915-16, page 65.

2. "The degree of M. Sc. may also be conferred on:—

"(*a*) Graduates (or persons who have passed the final examination for a degree) of approved universities, who, without having taken previously a lower degree of this university, can give sufficient evidence of their qualifications and have conducted research work approved by the faculty during a period of two years in the university.

"(*b*) Persons who are not graduates (nor have passed the final examination for a degree) of an approved university, who have conducted research work approved by the faculty during a period of three years in the university, provided that such persons satisfy the senate as to their general educational qualifications, and can give evidence (satisfactory to the faculty) of having attained an adequate standard of knowledge before entering on such research work. The full three years required for non-graduates who are candidates for master's degree by research should be spent in attendance at the university, but, on the recommendation of the faculty concerned, the senate may give permission that a period or periods not amounting to more than one year during the three years following registration may be spent elsewhere, provided that the faculty is satisfied that such period or periods are spent in the prosecution of suitable research."

* * * * * *

University of Liverpool, Faculty of Science, Prospectus of Courses for the Session 1915-16, page 15.

(*d*) "The provisions of clause 17 (*b*) and (*c*) of this Ordinance shall not apply to graduates of the university who have been admitted to the degree of bachelor of science before 1st January, 1911. The degree of master of science may be conferred upon such graduates, if they have graduated in honours school, without further examination; and if they have not graduated, upon their passing a further examination, or presenting a dissertation upon some subject included among the studies of the faculty.

"18. (*a*) Graduates of an approved university, or persons who have passed the final examination for a degree of such university, being not less than twenty-one years of age, who satisfy the faculty by examination or otherwise as to

their qualifications, may proceed to the master's degree after having conducted research or after having been engaged in higher study in the university in a subject or subjects of any honours school of the faculty during at least two years after the date of the registration. The faculty may, however, permit them to carry on study or research elsewhere for a period not exceeding one of these two years."

* * * * * *

University of Bristol, Faculty of Science, Prospectus for the Session 1915-16, page 20.

The Degree of B.Sc. by Research.

"A candidate who desires to spend the prescribed period of three years in the prosecution of research, instead of in the pursuance of a curriculum, may make application beforehand to the senate for the permission to do so. He shall furnish the senate with evidence of his qualifications to undertake research. If senate is satisfied then he may be allowed by senate to prosecute research in the university during three years, in the place of pursuing a curriculum of study.

"2. The result of his three years' research shall be embodied by him in a dissertation, which he shall submit to the judgment of the examiners of the university in the subject concerned, in the place of submitting himself for examination.

"3. The prescribed period of research for the degree shall be two years only, instead of three years, in the case of a candidate who at the time of his matriculation holds from another university a degree or diploma declared by the senate to be equivalent to the degree of B.Sc. of the University of Bristol."

CHATTERJEE, SANTOSH KUMAR.

The alterations proposed above in answer to question 9, if given effect to, and the creation of local universities to satisfy the growing educational needs of the community, will considerably reduce the number of students reading for the degree examinations. It may then be possible, in addition to the general written examination and supplementary to it, to have *viva voce* examinations for all candidates for degrees. This will serve to test the general fitness of students much more accurately than is possible under the present system. But such an arrangement is at present impracticable owing to the very large number of candidates for degrees. But a beginning may be made with the M.A. and B.A. honours examinations.

CHATTERJEE, Rai Bahadur SARAT CHANDRA.

There should be greater practical tests, particularly in degrees for professional and technological subjects.

CHATTERJEE, SUNITI KUMAR.

Suggestions as to the improvement of the existing methods of University examinations:—

(*a*) There should be a wide choice of questions; questions should be of a general nature, with a few of a special nature for the best students, for answering which extra credit is to be given.

(*b*) Examinations should be less mechanical. In particular cases, the record of the candidates' tutorial and other college work (which can be submitted annually to the University) may be taken into consideration.

CHATTERJEE, SUNITI KUMAR—*contd.*—CHAUDHURI, The Hon'ble Justice Sir ASUTOSH—CHAUDHURI, BHUBAN MOHAN—CHAUDHURI, HEM CHANDRA RAY—CHAUDHURI, The Hon'ble Babu KISHORI MOHAN.

(*c*) Teaching should be thorough, examinations light. The system of examination by parts may be introduced so that examinations might not act as a bogey.

(*d*) The number of papers assigned to an individual examiner should not be large, and higher fees should be paid to examiners to ensure good and careful work.

CHAUDHURI, The Hon'ble Justice Sir ASUTOSH.

I have an impression that our question papers are not well scrutinised and moderated, and that the answer papers are too stringently examined. Undue attention is paid to punctuation, spelling, and grammar. Sufficient attention is not paid to ascertain the extent of the knowledge of the student in the subject in which he is being examined.

CHAUDHURI, BHUBAN MOHAN.

The examination papers in English should be a little more strictly examined because many boys pass the matriculation examination with a very inadequate knowledge of English. The standard in mathematics should be a little higher, the present standard being so low that it produces a deterrent effect upon the students in respect of acquiring proficiency in that subject. Questions on Bengali should be like those on other languages so that students may have an incentive to study the subject thoroughly. History, geography, elementary science, and the classical languages should be compulsory. There should be fixed text-books in English and Bengali for the matriculation examination, besides the books recommended to indicate the standard of knowledge required.

CHAUDHURI, HEM CHANDRA RAY.

The custom prevalent in the Medical Department of examining by parts should be introduced into the arts and science departments. An unsuccessful candidate who has failed to secure pass marks in a particular subject should be re-examined only in that subject, and in no other. The number of questions to be answered in an examination paper should be small.

CHAUDHURI, The Hon'ble Babu KISHORI MOHAN.

I think it would be better to have University examinations conducted by persons outside the teaching staff so that the examinees may not be encouraged to direct their attention for the success in the examination to the peculiarities and the mode of teaching of the examiners, but try their best to secure thorough knowledge in their subjects so as to be able to stand any test. The names of the examiners should not be announced beforehand.

As to the methods of examination I wish to draw attention to the following points :—

(*a*) Alternative questions should not be set, except in the higher examinations in which the range of study required is wide.

(*b*) Too much importance should not be attached to translation in the matriculation examination. Questions in language should be set so as to test the power of the examinees in expressing themselves correctly.

(*c*) Questions should not be of a stereotyped character, and an attempt should be made to introduce greater variety into the questions.

(*d*) The distribution of the total number of marks among the questions should be so regulated that a candidate may not pass unless he answers some questions which cannot be answered from memory alone, but require intelligence and real knowledge in the subject for their solution.

CHAUDHURY, The Hon'ble Babu BROJENDRA KISHORE ROY—CHAUDHURY, The Hon'ble Nawab Syed NAWABALY, Khan Bahadur.

CHAUDHURY, The Hon'ble Babu BROJENDRA KISHORE ROY.

The suggestion made in answer to question 9 might, if given effect to under proper arrangements and safeguards, greatly improve the method of testing proficiency in different subjects in University examinations. But, in the M. A. examination, students, especially those who are to be placed in the first class, ought, in most subjects, to be placed under practical *viva voce* examinations.

CHAUDHURY, The Hon'ble Nawab Syed NAWABALY, Khan Bahadur.

At present, the method of requiring students for examinations to give their names on the answer papers is not conducive to an impartial examination. Roll numbers should be used, instead of names of candidates, in answer papers. I give below the University marks which two different students have got in the annual B.A. examination of 1916, the one of a Muhammadan, Azharuddin Ahmed, Roll No. 59 (Cal.) of St. Paul's Cathedral Mission College, and the other a Hindu, Nagendra Nath Ray, Roll No. 1477 of the Ripon College, and leave the Commission to form their own conclusions :—

English.	Bengali.	History or Economics.	Philosophy.	Minimum aggregate for passing.
Full Marks. 300	100	300	300	360
Pass Marks. 100	33	100	100	...
Azharuddin Ahmed 106	36	108	109	359 (one mark less).
Nagendra N. Ray. 91 + 6 + 3R	33	126	100	359 (one mark less).

It will be seen from the above chart that the Muhammadan candidate who gets above the pass marks in every subject was considered to have failed in the examination for the reason that he had not succeeded in getting one mark more in the aggregate, whereas the Hindu candidate, who takes just the pass marks in two out of four subjects for examination and in a third (English), at first gets 9 marks less than what is necessary for passing in that subject, but is given grace marks in two instalments of 6 and 3 to make up the deficiency—this Hindu student who, in spite of exceptional treatment, also gets one mark less in the aggregate, was declared to have passed. The University confers a degree on the one and gives the go-by to the other. It will not be a wonder if, should the University marks, registers, and answers papers be properly examined, many more cases of flagrant injustice of this kind would come to light. I may add that, in connection with the case under reference, I had put an interpellation in the Imperial Legislative Council on the 20th March, 1917. The question, with the answer of the Government of India, is given below :—

Question :—

(*a*) Has the attention of Government been drawn to the articles in the *Mussalman* and the *Amrita Bazar Patrika* of the 9th and 19th February, 1917, respectively, regarding the results of two candidates in the last B.A. examination of the Calcutta University?

(*b*) If so, will Government be pleased to state :—

(i) If any action has been taken in the matter?

(ii) If not, whether they propose to make any inquiry?

CHAUDHURY, The Hon'ble Nawab Syed Nawabaly, Khan Bahadur—*contd.*—
CHOUDHURY, Rai YATINDRA NATH.

Answer:—

(*a*) The Government of India have seen the articles in question.

(*b*) (i) No action has been taken by the Government of India.

(ii) The Government of India do not propose to take any action. The matter is one for consideration by the Calcutta University.

Of course, the matter was primarily one for the consideration by the Calcutta University, but that University very rarely troubles itself with such considerations, and no one knows what it did in this particular matter. I may add that I represented this matter to the vice-chancellor, and Mr. Hornell, too, I am told, made necessary representations to him. But the vice-chancellor had not the courtesy to even so much as acknowledge our communications. I may further add that, in view of the continued injustice the present system was inflicting on the Muslim community, the Muhammadan Educational Conference and other accredited Muslim organisations have from year to year passed resolutions requesting the University to dispense with the present system, with no satisfactory effect on the attitude of the University. I strongly feel that it is high time that the University gave up altogether the system of requiring candidates for examinations to put their names on answer papers. I am further of opinion that the names of colleges also should not be given on them. The rivalry that, unfortunately, exists between one college and another is liable to be carried into valuation of answer papers of University examinations. I would also suggest that Muhammadan interests should be represented on the Board of Examiners.

CHOUDHURY, Rai YATINDRA NATH.

The present system unnecessarily provides too many examinations and I am clearly of opinion that the number should be reduced in some such way as follows :—

(*a*) There should be one examination for degrees, which should be called differently, varying with the subject matter of the study; for example, B.A. for those who would study the modern languages and "the humanities"; B.Sc. for science students in its theoretical aspects; B.Tch. for students going up for technological study; B.M. for medical students; B.C.E. for students taking up engineering subjects; and B.L. for law students.

(*b*) For post-graduate students the University should reward them by dubbing them M.A.'s, M.Sc.'s, M.Tch.'s, M.B.'s, M.E.'s, and M.L.'s. The degrees of doctorate in these subjects should be reserved for only those who produce original researches and contribute some new knowledge to the stock of human learning.

(*c*) All other intermediate examinations, so far as possible, should be forsaken and proper attention ought to be given to the results of our students in their class and laboratory work. If we provide adequately to take into consideration these results no harm would be done to students in the gradual promotion of their study before they appear at the graduate examination. Advantage may also be taken of these results for the promotion of our students from one class to the next higher class in the colleges. In our colleges better provision ought to be made for the study of the subject, and not the text-book, especially in the case of advanced students, and for the institution of adequate machinery in the colleges, whereby results of each student's progress in his subject may be minutely recorded and scrutinised by the college authorities. This done, we will not require too many examinations for testing the progress of our students. The present system is clumsy in all conscience and does not furnish adequate data for really testing the merit and progress of our students. Public examinations, coupled with the results in class and laboratory work, should be utilised for rewarding our students in the matter of granting degrees to them and of placing them in order of merit.

(*d*) The present I.A. and I.Sc. examinations ought to be abolished, and the period for the present B.A. and B.Sc. courses should be increased by at least one year.

(*c*) If the scheme suggested by me, with reference to my answer to question 7, be accepted, the period now taken by medical and engineering students may be reasonably cut down.

COVERNTON, The Hon'ble Mr. J. G.

In regard to examinations I certainly think that under the present system the work of both teachers and students is unduly subordinated to them. On the other hand, examinations cannot be entirely dispensed with. If a centralised university were created, with perhaps more or less autonomous colleges connected with it in the districts, it might prove possible, provided that the weaker colleges were weeded out and that the rest were carefully supervised, to reduce the number of university examinations for the degree to a minimum. Thus, the University need only hold a final examination for the degree. Admission to such an examination should be conditional on a candidate having obtained certificates of satisfactory work during his course from his college tutors and those university professors or lecturers whose classes he had attended One result of this reform would be the abolition of so-called intermediate qualifications. For instance, a student would not be able to style himself an I.A., much less a failed I.A. The present possibilities for obtaining such intermediate qualifications are one of the sources of weakness in our university system. They encourage the feeble or desultory student and cheapen the hall-mark of the University. At the same time, the University should leave it open to the colleges or institutions within, or connected with, the University to hold such examinations as they consider absolutely necessary, and perhaps even to grant certificates for such examinations, but these certificates should have no university status; each would merely signify that the candidate concerned had passed a particular examination held by a particular college or institution. The University syllabuses should be laid down on broader lines, and without particular reference to examinations. The final examinations, however, should not travel beyond the borders of the various syllabuses laid down for the several subjects required for the University degree.

CROHAN, Rev. Father F.

The paper setters should always be men who are actually engaged in teaching. Professors of the intermediate classes or B.A. and B.Sc. classes should set papers for the matriculation. Intermediate papers should be set by B.A. and B.Sc. professors, while M.Sc. professors should set those for the B.Sc. The main point is that paper setters should be in touch with students, and familiar with their requirements, as well as their abilities.

CULLIS, Dr. C. E.

The percentage of marks required for passing the various examinations should be considerably increased. For the most part the existing schedules (except for the matriculation examination) are fairly satisfactory, but the standard of passing is too low.

The practice of giving numerous alternative questions is useful as conducing to freedom in teaching; but, as its introduction was not accompained by a raising of the number of marks required for passing, it has resulted in a lowering of the standard. In most mathematical examinations a student can pass with ease in a subject of which his knowledge is very slight by answering a few book-work questions, or a few questions which lie within a narrow range.

DAS, BHUSAN CHANDRA, and RAY, BAIKUNTHA CHANDRA—DAS, Dr. KEDARNATH—DAS GUPTA, HEM CHANDRA.

DAS, BHUSAN CHANDRA, and RAY, BAIKUNTHA CHANDRA.

An arts student's work in the library more or less corresponds to the science student's work in the practical classes. In the degree examination a studious arts student works under a disadvantage, and his merits are not appreciated by the University. Some books may be recommended by the University in each arts subject and the principal of a college will make proper arrangements for the study of those books in the library and give, after holding a kind of test examination, a certificate to the effect that a particular student has shown proficiency in the knowledge of the subject matter of the recommended books in a particular subject. The University will, in that case, reward the industry of the student by giving him 10 per cent marks in that subject at the degree examination.

DAS, Dr. KEDARNATH.

To retain a uniform standard the number of candidates in each examination should be diminished either by having more universities, or by holding the examination twice or four times during the year. It will not then be necessary to multiply the examiners, and thereby resort to a mechanical way of examining and marking, so as to try to maintain a uniform standard.

Regarding medical examinations I would advocate the recognition of the principle of examination by compartments as far as possible. As Professor Osler has aptly remarked:—"we have no right to compel the student to sit for the same subject again after he has shown his proficiency in that subject by passing the examination in that subject". The high pressure of the medical examinations must be reduced.

DAS GUPTA, HEM CHANDRA.

I have the following suggestions to make regarding the existing methods of University examinations, and my remarks above the matriculation stage refer chiefly to the science examinations:—

(*a*) At the matriculation stage all candidates whose vernacular is Bengali, and others who desire it, must be examined through the medium of Bengali.

(*b*) At the intermediate stage there shall be a complete bifurcation between the arts and science students. This stage will cover a course of one year and will be looked upon simply as the preliminary to the graduate stage, *i.e.*, those who pass the intermediate stage only will not be entitled to any special privileges either at the hands of the University or at the hands of Government, excepting those which belonged to him on account of his having passed the matriculation stage. All students who desire to go up for the bachelor degree examination in the science course shall take, at this stage, a paper in English prose, a paper in vernacular, and selected courses of lectures on accessory subjects, *i.e.*, subjects other than those which he means to take up for the B.Sc. degree examination, but acquaintance with which is necessary for properly understanding them. If a student, for example, wishes to take up physics, chemistry, and mathematics for the B.Sc. examination he should have some knowledge of crystallography for properly understanding the topic of polarisation of light, while for the purpose of learning chemistry thoroughly he should have some acquaintance with the minerals which are very valuable as ores of metals. At the intermediate stage the time of students should be utilised in learning such accessory subjects and, in case he finds that he cannot arrange for attending all lectures in these accessory subjects in one year, he will be permitted to finish the remaining part in the second year, in which year the student shall also begin the study of the subjects he wishes to graduate in. At the end of the first year there will be a University examination only in English and vernacular, while certificates from teachers in the accessory subjects will be quite sufficient.

DAS GUPTA, HEM CHANDRA—*contd.*—DAS GUPTA, KARUNA KANTA—DAS GUPTA, SURENDRANATH.

(*c*) After a student has passed his intermediate examination he shall be allowed to attend the lectures for the B. Sc. degree, and the course will be of three years. The candidate will be allowed a choice of three subjects from a comprehensive list. He shall also take two papers one in English composition and one in Bengali composition. A system of *viva voce* examination should be introduced at the option of the examiner, and as supplementary to the practical examination. There must be periodical examinations in the college, and the marks obtained by candidates at these examinations should be taken into consideration while considering the result of his university examination. The present system of dismissing college classes by the end of January should be discontinued, and lectures should be continued nearly to the end of the term, thus giving the examinees a week or fortnight to revise their old lessons.

(*d*) The practical examination at the M.Sc. stage should be, in the main, a test of the candidate's capacity for carrying on independent investigations, and hence, at such an examination, the candidate shall be allowed to make free use of the library and there should not be a hard-and-fast rule regarding the time limit. At this stage also there may be a *viva voce* examination at the option of the examiner, while a paper on translation of scientific extracts in French or German should be compulsory. In answering his paper in translation a candidate may use a dictionary.

(*e*) All M.Sc's. should be eligible for competing for the D.Sc. degree.

DAS GUPTA, KARUNA KANTA.

I speak of the matriculation examination only. It is reported that an examiner has to look over at least twenty papers on an average daily. This is too much of a strain, especially for examiners who have other work to attend to. The inevitable result is hurried work. An examiner should not be given more than fifteen answer papers to look over in a day, and a large proportion of teachers should be appointed to do the work. Persons unconnected with school and collegiate education should have nothing to do with this work.

I consider the setting of alternative questions in the matriculation examination papers as an evil, and a matter of doubtful utility. It helps many undeserving boys to get through, who profit very little by a collegiate education. This system increases the number of unsuccessful candidates in the intermediate and the degree examinations.

The alternative questions, unfortunately, do not present equal difficulties to undeserving candidates, however ill prepared they may be.

Again, some text books in English should be prescribed and a few recommended books also on the subject. 40 per cent at least of the questions should be set from these text-books and the rest from the recommended books. This will not encourage cramming, but will encourage the boys to read well the books recommended for their use. At present, there is an uncertainty due to many questions being set from books other than the recommended ones, and the boys do not generally give much serious attention to class work.

Too many marks are awarded to translation work. A few questions on practical composition, besides essay writing, might, with advantage, be added to the morning paper in English.

DAS GUPTA, SURENDRANATH.

With reference to examinations it does not seem to me that, apart from the question of technical or industrial arts, the needs of Bengal will in any way be different to the needs of other countries. The system of examination that we have got now has been introduced here quite recently with the advent of English educa-

DAS GUPTA, SURENDRANATH—*contd.*

tion. In the Hindu system there was no such system of examination; the students remained with their teachers as long as it was necessary for each student to finish his studies. After the period was over, and when the student was deemed fit by the professor, he was given a diploma according to the subject in which he specialised, and also according to the proficiency that the candidate obtained. The tutorial classes were held by the senior pupils, under whose direct charge the junior pupils were generally put. There were wrangling meetings of professors in diverse places and in these meetings generally these discussions were generally begun by the senior students or students newly diplomaed and when the debate became very acute the professors helped the students and ultimately the students withdrew and the debate continued amongst the professors. Junior members were also often taken to these meetings and they always learnt much from these debates. Resourcefulness, originality, and study were in great demand in these meetings and the man who could shine in these assemblies generally became famous within a short time. So, scholarship was the main aspiration. No importance was ever attached to examination. The brilliant achievements of India in literature and philosophy prove that such a system was quite suited to the needs of the country so far as those subjects were concerned.

I have got a big Sanskrit institution at my house (possibly the biggest in Bengal, as it contains over 130 students). This *tol* is in existence for the last 125 years, *i.e.*, for the last seven generations of my family. I am intimately associated with them from my childhood and I remember the days when the examinations were not introduced in the *tols* and, when I compare the present condition of the *tol* boys with those of that time, I am constrained to admit that this system has really done much harm. The idea to secure a pass by any means has taken hold of both the students and the professors, though this was never the case with them before.

It is, therefore, that I hold that the examination system had no special charm for Bengal, and the defects from which the boys in the present generation are suffering on account of this system are the same as that of Bengal, and it is not true that Bengali boys cannot be trusted to work properly if the pressure of examination is lessened.

Of course, it cannot be denied that examinations are often great incentives to study, but the trouble is that they are monopolising all the attention of the student and the professor alike to such an extent that all teaching is becoming necessarily subordinated to them. An essential condition of teaching is that the student and the teacher should have the same ideal before them and they will help one another to the furtherance of that end. But, as it now stands, the average student thinks of nothing but the examination, and often even the best boys are obliged to think of these examinations as separate from their studies. It is often of great use in securing high marks in an examination that a student should concentrate all his studies with the distinct ideal of doing well in the examinations. The whole atmosphere is so much charged with such an idea that it becomes impossible for any professor to hold out a higher ideal with fair success. Both in private and Government colleges the authorities think that teaching with a view to secure the largest number of passes is the only duty of the teacher and, as a result of that, all teaching becomes necessarily subordinated to that end. Moreover, the teaching and lectures being almost of the same value, and there being no association of higher studies in colleges generally (not to speak of researches), there is nothing in the colleges to counteract the examination ideal.

The defects of examination may be enumerated as follows:—

(*a*) They tend to destroy natural interests, and exclude from the attention of the pupils all matters outside the purview of the examination.

(*b*) They tend to paralyse the powers of exposition; all statements of knowledge being thrown into a form suitable not for an uninstructed person, but for one who already possesses it—the examiner.

(*c*) The sample of capacity yielded at an examination is frequently not a fair sample; it is liable to extreme variations; in a favourable sense if the candidate happens to have prepared the same questions asked; in an unfavourable sense if the candidate is suffering misfortune or from accidental ill-health, and also because the form of answers required by the special needs of an examination paper is not such as to test the depth of knowledge or higher powers of composition.

DAS GUPTA, SURENDRANATH—*contd.*

(*d*) The examination of several thousand candidates at a time cannot be so conducted as to be equally fair to the individuality of all candidates.

(*e*) The multiplicity of class examinations and test examinations tends to "underselling," and is surely a heavy strain on the examinees. The Dacca University Committee has, therefore, recommended the abolition of these class examinations of an inflexible character.

(*f*) It is altogether unjustifiable to give a man a university position on the result of his examination, particularly when we know that there are so many factors that guide the fate of examination results; at best, they but show the labours that the candidate had undertaken for a limited time only. A just estimate of a man's powers in research or teaching can only be properly based on his performance. The system of putting men simply on the merits of his degree is one of the chief reasons why this sterile art has got such an ascendancy.

(*g*) The recent leakage of question papers in the Calcutta University goes also to show the difficulties and accidents to which such a system is generally exposed; we find how, by the misdeeds of some designing and wicked persons, the whole body of students (about 25 or 26 thousand) was put to the greatest trouble. Even in the very best organisation there is no guarantee that such things can be warded off very easily.

The arguments on behalf of examinations may be summarised as follows:—

(i) Examinations serve as a necessary incentive to steady and concentrated work and show both student and teacher where they have failed.

(ii) Though, possibly, harmful to the highest class of men they are good for the mass, and examination records show that success in examinations is generally followed by success in after-life, and the test, therefore, is efficient. It is also said that teachers cannot be trusted to be impartial, and it is better for a boy to cram than to seek the favour of his teacher.

In study of the examination system of Japan, where the value of these is reduced to the last point, we do not find that even by reducing the strength of the examinations the tendency to cram has been removed. Thus, the late Mr. W. H. Sharp of Bombay in describing the education of Japan says:—"Examinations are not held on the colossal scale familiar in India. A great deal of latitude is left to the teacher, but set examinations are now forbidden in primary schools, promotion and graduation being settled by the teacher's daily marks or general impressions. In secondary schools an examination is commonly held at the end of each term, but sometimes at irregular intervals, without notice, and, in other cases, they are to be abolished. Even when they are held the marks are not always taken into account. Higher schools and colleges have terminal or annual examinations. But all through the scale the examination is conducted *in situ* by the teacher himself; and, though the standard is commonly fixed at 60 per cent, the small proportion of failures would seem to indicate that the papers are leniently marked. At the University the examinations are frequently oral, not written. The marks are not published, or classified, in any way; and except one at the top of the class, who may be excused his fees in the following year, or receive other rewards, a student does not know where he passed".

Again, in another place, Mr. Sharp says:—"The qualifying standard is, according to Indian ideas, very high—60 or even 80 per cent. Yet the percentage of the candidates passing is much higher than in India. Why is this? There is no reason to suppose that the average Japanese student is better than the average Indian student; on the contrary, the Hindu intellect is probably the keener and subtler of the two. And there are probably, on the whole, as good teachers in India as in Japan. It may be said that the Japanese understands his subjects so much better from studying them in the vernacular that he naturally gets higher marks. It may also be said that the Indian tests are unduly stiff. There is something in both these explanations, but I do not think that they account for the whole of the entire classes getting 80 to 90 per cent of the marks and graduating without a failure. There must be, it would seem, an abnormal difference in the examining; and, whilst the Indian examinations are too difficult, all the foreign teachers seen by me—men or women—have concurred in finding a preposterous leniency in those of Japan." In the paragraph which immediately follows Mr. Sharp says:—"At all events, the method pursued has not put an end to

DAS GUPTA, SURENDRANATH—*contd.*—DE, SATISCHANDRA.

cram in Japan..... Even now it seems that much of the school work is done in a mechanical way; notes are dictated and committed to memory, and the examinations being straight out of the class work there is every incentive to memorise the text-books and class notes. A story is told of a man who attended an agricultural course, took down all the lectures, and was, subsequently, appointed a teacher of the subject elsewhere. All went well until his notes were, unluckily, destroyed in a fire, and he had to return to his original college and go through the entire course again in order to replace them."

(iii) Again, if the teachers are left to themselves as the only examiners or judges of the merit of the boys in their subjects they may often teach only a very small part of their course and pass the boys very easily.

It, therefore, can scarcely be doubted that, in spite of the many disadvantages of the examination system, it can hardly be abolished without lowering the standard of education, particularly because it is impossible to be sure of the competency, efficiency, and impartiality of the teachers. I, therefore, suggest that the examination system should remain, but the importance of the written examination as the only test of merit or demerit should be removed, as far as possible, and it may be hoped that by diverting some of the interest that is now attached to examinations to other directions it may be possible to lessen their importance to a great extent.

This, I hope to do in the following way :—

(A) I should like to abolish all college tests, as they only multiply examination troubles. Short exercises may be taken at intervals without giving previous intimation and, whenever possible, oral questions should be asked or short oral examinations should be taken by the class teacher and a systematic record of these should be kept by the professor or submitted regularly, from time to time, to the principal. These records, as well as the opinions of the professors on the basis of them, should be considered at the time of the final declaration. In the University town the senior professor in each subject should be a member of the board of examiners of that subject.

(B) The three-years' course (two years for the external colleges) should be so regulated that students should have the option of appearing by parts every year, and the course over which the examinee has once undergone an examination and passed will not again be included in the other year's course.

(C) Boys should be required to write a thesis pertaining to the subject of their studies during their leisure hours throughout their college course and these theses are to be submitted by him at the final examination for helping the board of examiners to determine his real merit. The board of examiners will have the option to call any examinee in whose case there may be a difficulty in forming a judgment, and institute an oral examination in order to come to a right opinion about him.

(D) There is no necessity for holding practical examinations in science for the University final examination. The record of the class-room may be deemed sufficient for the purpose. This will reduce the chance of accidents at such examinations to a minimum and the student will be in a position to hope that honest and regular class-work will never disappoint him.

DE, SATISCHANDRA.

Questions should not be set by those who teach particular subjects. They may be set even in distant provinces or countries by experienced men engaged in teaching. The names of question setters need not be published in the calendar. But the teachers of the University and of the colleges should be appointed to look over answer papers as they alone are cognisant of the standard by which the answers of their students are to be judged. Now-a-days, even M.A. students attach importance to the notes of those who have set questions, and they read these notes to the exclusion of books.

Questions should not be set merely for testing the memory of candidates and, therefore, should not be very minute.

DUTT, REBATI RAMAN—*contd.*

genuine grasp in literature, and this difficulty becomes too palpable when the student passes from no-text-books to seven text-books in the intermediate course.

The multiplicity of subjects and combinations in the intermediate course presents a great puzzle to the young matriculate who knows nothing about the subjects and is yet asked to make a choice. He asks others and some one says mathematics is a horrid subject, another says history, another logic, and another physics. The young student sometimes takes a group and wants to change three months later; sometimes takes one subject more than is necessary, in a puzzle, and loses months over all. The college authorities, again, find great difficulties in arranging lecture courses. It may also be found that a student sometimes takes a very queer combination and is at a difficulty in the B.A. course.

I, therefore, strongly urge that the whole college course should be divided into distinct groups, *viz.*, history, political economy, English, mathematics, etc., where the one would be the principal subject, and subsidiary subjects will be attached thereto. There will be an intermediate examination in the group two years after matriculation and the degree examination two years after the intermediate. I may thus divide the groups:—

Intermediate—(Physical science):—

Physics	Four papers—One paper concerned with some general principles of chemistry.
Mathematics	Two papers.
English	Two papers.
Vernacular	Two papers.

B.A.—(Physical science):—

Physics	Four papers.
Mathematics	Two papers.
English	Essay—One paper.
Vernacular	One paper.

The scope of the different subjects is a matter of detail which may be settled on careful consideration about the requirements of the principal subject. Students will choose one group and finish the intermediate and degree examinations in the same group. Colleges will be affiliated in which groups. There will be different sets of question papers for different groups and all the groups will be examined together in different centres. The examinations will be over in ten successive days—there being one paper for four hours in one day—Saturday and Sunday, of course, being excluded. There will be different examiners in different groups, and the result must be out just six weeks after. The general intermediate and final examinations will begin in the middle of April and in the fourth week of October, and results will be out in the middle of June and December, and college sessions will begin in July and January.

In this connection, I would observe that there has been a tendency of late to decry the worth of our degrees and, in fact, to decry the whole system of education because we are passing in greater numbers. One senator raised a note of alarm in 1915, another senator proposed an enquiry into the state of things. It is natural that we, who saw 80 per cent of our friends thrown out while we came off triumphantly successful, would now feel inclined to decry the worth of a degree because 50 per cent of our younger friends obtains it. But let us soberly consider if the standard of examinations has really fallen off.

I have already said that there has probably been a falling off in the grasp of English literature in the matriculation, due to the no-text-book system and, in some instances, this deficiency may have lingered till the completion of the University course. But, as regards true knowledge and information, our younger friends have gone considerably ahead of us. The syllabus is more complete, more extensive, than we had. Hitherto, there was a tendency to subordinate all information and knowledge to the fluency of expression in English, and I congratulate the administration of Sir Asutosh that education is now valued at its true and proper worth of knowledge and information, and examinations are conducted accordingly.

DUTT, REBATI RAMAN—*contd.*—DUTTA, PROMODE CHANDRA—European Association, Calcutta.

The true test of the knowledge of a book is not to drive the boy to answer ten questions within the limited hours of a day, but to put to him a number of alternative questions covering the prominent features of the book and to see if he can answer a fair proportion of them within a sufficiently long time. The true spirit of education is not to drill all the intellects into one fixed groove, but to give free scope to each different type to develop in its own way. The present system is not sufficiently elastic, and I have therefore proposed further and fuller developments on these rational lines.

The University is an aggregate of institutions, and let us see how we value the education in an institution, school, or college. That institution is the best which spreads enthusiasm for education in the neighbourhood, which draws a number of scholars from outside which passes almost all its students in the public test, and which imparts such a training that, in manners and habits, knowledge, information, and expression, the successful students are of the finest type. What is true of an institution is true of the University. On the other scores, too, it is a matter of congratulation rather than alarm or anxious enquiry, that there has been a very great enthusiasm for education in our University, that we draw students from Madras or Allahabad, and that 50 per cent of our students pass their examinations. Indeed, it would be the aim of every institution that every one of its students passes the public test, and the University or the governing body of an institution should hold an enquiry if less than 60 per cent of boys pass from a school or a college. There was a time not long ago when 20 per cent of boys only passed the B. A. examination. The University threatens a school with disaffiliation that passes less than that percentage, and was there nobody to threaten the University with withdrawal of the charter when it failed to pass 80 per cent of its boys in the final examination, after taking away all their time, money, and energy? The University is certainly no charm-house. It stands for education, and it must impart education to every one of its boys that diligently follows the course, and it must afford every facility to develop the spirit of diligent work. The percentage of our passes is not higher than in the universities of the West. Indeed no university should artificially lower this percentage. Let Calcutta stand firm and dignified, proud of its achievements in the past and its developments in the present. Let not the people feel an apprehension that we do not want to pass our boys. Let not calumny say that we passed 41 per cent of our boys in the matriculation of 1916 because there was alarm in 1915. Let not our examination be a wrestle of wits between an examiner that wants to deceive the boy and an examinee who wants to deceive the examiner by slip shod preparation and haphazard answers. Let an examination be the true test of knowledge, and let the course of studies be so developed as to help us in attaining this success with due diligence.

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Paper setters should be more in touch with the subjects in which they examine than at present. In the M.A. examination none should be appointed an examiner till eight years after taking the M.A. degree (either in Europe or in India), and three years after becoming a post-graduate teacher, provided that exceptions could be made for very brilliant scholars.

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Speaking generally with reference to this question it is the experience of business men that the possession of Calcutta University qualifications does not guarantee the possession of the qualifications that are required in business.

As regards the clerks employed in business offices who have studied, as a rule, up to the standard for admission to the University, it is found that they are generally steady and accurate workers, good calculators, and book-keepers, but that they practically never develope the power of using their judgment, as required, for instance, in the drafting of letters, or, indeed, in the conduct of responsible work in general.

DUTT, REBATI RAMAN—*contd.*

genuine grasp in literature, and this difficulty becomes too palpable when the student passes from no-text-books to seven text-books in the intermediate course.

The multiplicity of subjects and combinations in the intermediate course presents a great puzzle to the young matriculate who knows nothing about the subjects and is yet asked to make a choice. He asks others and some one says mathematics is a horrid subject, another says history, another logic, and another physics. The young student sometimes takes a group and wants to change three months later; sometimes takes one subject more than is necessary, in a puzzle, and loses months over all. The college authorities, again, find great difficulties in arranging lecture courses. It may also be found that a student sometimes takes a very queer combination and is at a difficulty in the B.A. course.

I, therefore, strongly urge that the whole college course should be divided into distinct groups, *viz.*, history, political economy, English, mathematics, etc., where the one would be the principal subject, and subsidiary subjects will be attached thereto. There will be an intermediate examination in the group two years after matriculation and the degree examination two years after the intermediate. I may thus divide the groups:—

Intermediate—(Physical science):—

Physics	Four papers—One paper concerned with some general principles of chemistry.
Mathematics	Two papers.
English	Two papers.
Vernacular	Two papers.

B.A.—(Physical science):—

Physics	Four papers.
Mathematics	Two papers.
English	Essay—One paper.
Vernacular	One paper.

The scope of the different subjects is a matter of detail which may be settled on careful consideration about the requirements of the principal subject. Students will choose one group and finish the intermediate and degree examinations in the same group. Colleges will be affiliated to in which groups. There will be different sets of question papers for different groups and all the groups will be examined together in different centres. The examinations will be over in ten successive days—there being one paper for four hours in one day—Saturday and Sunday, of course, being excluded. There will be different examiners in different groups, and the result must be out just six weeks after. The general intermediate and final examinations will begin in the middle of April and in the fourth week of October, and results will be out in the middle of June and December, and college sessions will begin in July and January.

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GANGULI, SURENDRA MOHAN—GANGULI, SYAMACHARAN—GEDDES, PATRICK.

GANGULI, SURENDRA MOHAN.

No improvement is possible under the existing system, in which a large number of students is examined from one centre. A school-final examination—purely a school examination—managed by the teachers, and not by the Education Department, nor by any other centralised body—should be introduced to improve the situation. If necessary, the University should hold the matriculation examination only for selecting students for a university career. Only those students whom the teachers think fit for such a course should be admitted to the examination. [But there is one drawback in the system that the door to higher education is artificially barred against some students who might do well later.] For those students who are declared unfit for a university course, but receive school-final certificates, new openings should be thrown open by establishing technical and industrial institutions.

The Intermediate examination should be abolished, or, if retained, should be left to the colleges. The University should manage only the degree examination, which may be conducted in the following manner:—

After the completion of the college course students should be examined in different subjects at different periods. Failure in one subject should not be regarded as a bar to passing in other subjects. The system of awarding marks in examination papers should be improved by making a distinction between intelligent and mechanical answers.

GANGULI, SYAMACHARAN.

The number of questions set should not be more than can be answered by average students within the time allowed. If the questions are too many candidates have to work in great haste, which is not good training.

GEDDES, PATRICK.

Improvements can be effected by increasing the value allotted to the record regular study, also in a minor degree to oral examinations, and in a large degree to personal work. As in Germany, the production of a personal thesis should be encouraged at levels long before that of doctorate. Thus the University of Aberdeen (and I daresay others) has found the preparation of a thesis to be of educational and stimulating value for the degree of B.Sc.

I hold also the American method, adapted from Germany, of largely recognising "options" is adaptable here and everywhere. Sneers at "soft options" are exaggerated; and these can be guarded against.

I submit that the ancient principle revived of late years as an avenue for the Paris doctorate should be introduced into Calcutta—whereby the candidate may present an original thesis, along with a biographic record, indicating his educative experience of whatever kind, non-academic as well as academic. To the subject chosen by the candidate for his thesis, two correlated questions are set, by representatives of cognate studies. The candidate has to express and sustain the conclusions of his thesis and answer reasonably upon the cognate questions, before he is admitted; and I can testify from presence at such functions (and sometimes long acquaintance with the work of the candidate and the examiner alike) that this cross-examination is a real one. Notable additions to knowledge have thus been made; and the utilisation of unconventional careers and talents is thus rendered possible. For the candidate has often passed no previous examinations at all; but is judged entirely upon his personal merits and work. Here in fact in this form of doctorate, the method of estimation has come into its proper place.

GHOSH, Dr. B. N.

I think up to the I.A. and I.Sc. classes there ought to be rigid college final examinations, and then at the B.Sc. there ought to be a good standard, to which a student is expected to show his merits, as is done in the case of the internal students of the University of London. But I think there ought to be a general meeting of all the professors of the different colleges before finally announcing the B.Sc. results because often we find that a student is very good, say, in his practical class, but fails by chance. These cases ought to be dealt with in the general meeting.

GHOSH, BIMAL CHANDRA.

The following improvements are suggested :—

(*a*) M.A. papers should be of three hours' duration, and only one paper should be set on each day. The present four hours' paper is too much for the candidates in this climate, especially in June and July. Even the best papers betray fatigue, and many candidates take a long time to recover from such strain.

(*b*) B. A. honours papers should be set *one on each day.*

(*c*) There should be a periodic change of examiners—a system of *rotation* will be preferable.

(*d*) Good teachers to be preferred as examiners, as they alone make good examiners. This is more true of *oral* and *practical* examinations.

(*e*) All M A.'s should be allowed to proceed to the doctorate by thesis.

GHOSH, DEVAPRASAD.

There should be no minimum age-limit as there is at present in the matriculation examination. As a matter of fact, indifferent students do not reach the top form before their sixteenth year; they are kept back by a process of natural selection; promising and brilliant students, as a rule, get to the highest class somewhat earlier; and I do not see any reason why they should not be allowed to continue their regular career in the University instead of being compelled to waste a year or two, and thus damp their energies and spirits.

If a student fails to pass in any year in any subject or subjects he ought to be examined next year only in the subject or subjects he has failed in.

Outsiders should be appointed examiners; this system is now generally followed up to the B.A. examination; but is not followed generally in the M.A. examination. This omission has a most injurious effect; it entails much hardship and injustice on private and non-collegiate students. These poor people do not know what has been taught in the college, what notes have been dictated; they, therefore, read up the huge books recommended and do poorly in examinations.

GILCHRIST, R. N.

I have been an examiner in the University for seven years, most of the time in political science and political economy. I have examined at all stages :—B.A. pass, B.A. honours, and the M.A. I have examined my own students, and the students of other colleges, and of all the same tale is to be told. The text-book is practically the sole source of instruction in the subject. In the political sciences several colleges are affiliated to the pass or honours standard, but in no case could I tell from the examination paper whether the students, say, of the Scottish Churches, had a different teacher from the Presidency College students or the Dacca students. Their instructors were not Mr. Williams, Mr. Kydd, or myself, but Mr. Stephen Leacock, President Wilson, and, a strange combination, some such person as " an honours graduate ".

GILCHRIST, R. N.—*contd.*

whose work was sold in the bazaar for a few annas. The benefits of studying in President Wilson's or Mr. Leacock's or Dr. Marshall's books are very great indeed, but, as the Bengali student studies them, the very reverse of benefit is the case. I think I can honestly say that, after reading the answer books of fifty or a hundred papers, I could have repeated large passages almost *verbatim* from the works of these authors even though I had never read their works myself. As I have already said the examiner's function is to check errors of memory more than to test the ability of a student in handling a question. Though students are warned at the top of each examination paper that they must answer the questions in their own words *as far as possible* little heed is given to that by examiners. The *as far as possible* may have more meaning than appears at first sight.

The subservience of teaching to examination is, I should think, as clearly shown in the political sciences as anywhere. Many of the most workable modern books are written in America, and it is not unusual, in fact it is quite common, for students to answer the papers as Americans. I have often come across such phrases as " our institutions ", implying American institutions; dollars are the accepted currency of money answers; and Congress is "our" parliament. What is the value of teaching where the University system permits such work? Either the teaching must be extraordinarily stupid, or the students must work on the principle that teaching is of no account provided the text-books are memorised.

It is needless to point out the despair to which a conscientious teacher is driven by such work.

As a lecturer, again, I have had similar experiences. In my first years I tried to lecture in the M.A. courses on the most modern political theories. I gave a course of lectures on T. H. Green's work and subsequent developments. Not a single student paid the slightest attention; in fact, they absented themselves from their classes. Such subjects were not in the syllabus. Later, they were included in the syllabus and there were few absentees then! At the Presidency College, too, the professors in the M.A. subjects tried to lighten the dark path of examination work by instituting seminars. These seminars were meant for the reading of original papers and subsequent discussion. They were useful to a certain extent, but it was impossible to get real seminar work done in them. All the work *had* to have some bearing on likely questions in the examinations.

Another enormity, the most disgusting of all for teachers, was, under the old post-graduate régime and I suppose under the new, the hunt after examiners. Certain persons were regarded as the most likely examiners in certain subjects, and their notes were always at a premium. I have been hunted from college to my house and from my house to college by students whom I had never seen to " advise " them as to the most important " books " to read. And in the old competitive system there was considerable competition as to who should set the papers for this very reason. A continual cloud of suspicion as to examiners hung over both students and professors, and many most discreditable tales hang thereon. Without giving names, I have it on excellent authority that one professor actually told his students not to trouble about professor X's notes, as professor X was not to examine in the subject!

In the B.A. exists a rule that teachers of subjects shall not set papers for the examinations in that subject. This rule is not a speciality of Calcutta; it existed in the old South African University, with bad results. The same results have followed in Calcutta. It is difficult to get competent examiners outside the teachers in many subjects. Examiners are appointed who are forced by their own ignorance of, or rustiness in, their subjects to set questions from the prescribed books in a way most acceptable to the crammer. Teachers of a subject are the people best fitted to examine in the subject simply because they know both the subject and the students. Were it possible to have as paper setters people who had taught the subject, though not now teaching it, the non-teacher examiner would be less objectionable; but in a University like Calcutta, requiring many examiners and teachers, this is not easy.

In examining the papers, again, the huge organisation of the University makes good work very difficult. No two examiners agree on all points, and the addition of a moderator of examiners, while introducing a certain amount of uniformity, does not give satisfactory results. A glance at the calendar shows that the very magnitude of the University must mean bad examining. Many examiners are necessary for even

GILCHRIST, R. N.—*contd.*—GOSWAMI, BHAGABAT KUMAR, Sastri—GOSWAMI, Rai Sahib BIDHUBHUSAN.

one paper, and of these examiners some may be from Assam, some from Calcutta. some from Dacca. The University cannot possibly afford to pay the travelling expenses of all examiners to enable them to meet regularly to compare methods and results; while on the part of the examiners, especially those from a distance, travelling means much loss of time and energy. A solution, on the other hand, which would place all examining in the hands of Calcutta would be absolutely distasteful to colleges, and grossly unfair. No organisation of the present dimensions can produce a satisfactory system of examination, much less a satisfactory inter-relation betweeen teaching and examining. Students and teachers alike become parts of a machine, not, as they should be, units in an organic whole.

In examining, as in other matters, the only solution that seems feasible to me is a breaking up of the present machine, on the lines already advocated. This is the only way to rid ourselves of the present rigidity of the examination system. The prime essential in examining is to secure the teachers as examiners, and to bring the numbers of students within such limits as may be easily manageable. The characteristic text-book cramming so common here makes the *viva voce* examination more necessary than in other universities, and *viva voce* examinations have, up to now, been totally neglected even in the mastership degree examinations. *Viva voce* examining entails much labour and organisation and is perfectly impossible within an organisation which examines students by tens of thousands. I do not know a single university in Britain which would give a degree in French or German without *viva voce* tests; but in Calcutta, where the actual medium of instruction is English, not a single *viva voce* examination is given. There are hundreds of B.A.'s, yes, even M.A.'s, in Bengal, who cannot maintain a conversation for long in good English; yet they have worked with English all their courses, the English of Marshall, of Locke, of Hobbes, of modern Americans, of Shakespeare, Milton, Shelley, Keats, and Byron, of historians, mathematicians, physicists, orientalists, and what not else, yet they cannot discuss a problem in language out of the linguistic grooves in which they have worked. *Viva voce* tests should become universal in the University, and that is possible only by having a university organisation of workable proportions.

My scheme provides for the following :—

(*a*) A unitary University, in which the members should be perfectly workable. The arts section would be simply a repetition of the present Presidency College.

(*b*) A University of Calcutta, with constituent colleges, in which I consider the colleges should be sufficiently strong to conduct their own examinations, with external examiners (external examiners I regard as necessary in all unitary or college examinations).

(*c*) Selected colleges in the traditional federal type of university, which should be able to conduct their examinations.

The only cases in which anything similar to the present type would continue would be the transitional colleges in the mofussil, the non-selected or non-potential colleges, the examinations for which could be conducted on special arrangements, under the controlling board.

GOSWAMI, BHAGABAT KUMAR, Sastri.

My suggestions are embodied in my answer to question 9. There should be supplementary instruction and tests, records of which should be taken into consideration in declaring the results of the final examination

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GOSWAMI, Rai Sahib BIDHUBHUSAN.

The existing methods of University examinations are of a mechanical character. The present practice of allotting marks to questions and sub-sections, though adopted with the object of doing maximum justice to the examinee's work, has an injurious effect. The examiner has to give some marks, however low they may be, to the

GOSWAMI, Rai Sahib BIDHUBHUSAN—*contd.*—GUPTA, AMRITA LAL—GUPTA, BIPIN BEHARI.

answers of the questions and their sub-sections provided the answers are partly or fully correct. These marks, or fractions of marks, when added together often make up the minimum pass mark; and the examiner has no choice but to pass the examinee though the quality of his work is insufficient for a pass. In order that the examinations may be conducted successfully and properly the greatest care should be taken in the selection of examiners. None but experienced teachers of sober judgment, who are not swayed by impulse, who think that the work of examination is a sacred duty, and who can adapt themselves to the standard required of candidates for the examinations in question, should be appointed examiners—both paper setters and paper examiners. I make no reflection against the present examiners to the University.

GUPTA, AMRITA LAL.

There is some room for the improvement of the existing methods of University examinations. The following suggestions are offered for consideration:—

(*a*) Successful teachers of high schools should be appointed paper examiners in the matriculation examination and ought to have a voice in the selection of paper setters and head examiners.

(*b*) In the higher examinations only teachers of great experience and having a permanent interest in the work of education should be examiners.

(*c*) No examination should be held in the hot season and candidates should only answer one paper a day.

(*d*) There should be some recognition of the regular work done by a candidate in his school or college.

(*e*) An oral test in the language examinations should be introduced.

The two principal functions of teaching in schools and colleges are:—

(A) The awakening of the mental activity so as to develope the mind in the best possible way, leading, at the same time, to the acquisition of that knowledge which is most useful to the mind and its development.

(B) The training of the power of expression of the thought evolved.

Of the above two, again, the second is only necessary when the first is secured. Examinations can test only the first through the second, and should seek to find out what the pupils know, to ascertain if they can express themselves in a methodical way and pertinently, and not to brand them as inferior for what they may not know. It is patent, therefore, that however excellent a system of examination may be, it cannot by itself advance the cause of education unless the available material on which the tests are to be applied be so circumstanced as can be used in the best possible way. The Calcutta University has the power to test only, but not effectively to control, direct, or encourage the available resources. The result has been that the University examinations instead of testing the conditions and progress of mind in its development, instead of aiding the unfolding of the principle underlying in every individual, only test superficially the expressions. Greater attention is, therefore, paid to the expressions—the forms—than to the real knowledge—the substance in our schools and colleges. The circumstances—social, economical, and others—in which the Calcutta University has to work are more responsible for the undesirable subordination of teaching to examination than the University itself.

The lines and scope of study in all subjects should be indicated by the University in a broader way than what obtains now, and examinations should be so conducted as at once to maintain a definite standard for the average and secure proper recognition of individual excellence.

GUPTA, BIPIN BEHARI.

As the Calcutta University will be more circumscribed in area than at present there may be no difficulty in holding general examinations at certain stages. Improve-

ment of the existing methods may be effected if examinations by compartments be held periodically; no marks should be assigned to individual questions, thus rigidly defining their value, so that the examiner would be at liberty to determine the merits of an examinee from the way in which he attempts to answer any or some of the questions; a liberal allowance of alternative questions should be made giving candidates some freedom of choice.

GUPTA, SATYENDRANATH.

The following answer has reference to secondary education only.

In English the questions are all right, but the answer papers are apparently examined leniently; accuracy of language should be taken into account in marking papers. Besides the recommended books there should be a prescribed text-book for critical study.

In Sanskrit the questions should be stiffer. The questions on grammar can be answered by boys of the third class. Only 25 marks are allotted to Sanskrit translation; the remaining 75 marks can be secured by one possessing only a superficial knowledge of Sanskrit.

In Bengali there should be a prescribed text book, as in the pre-matriculation period.

In mathematics the questions on arithmetic and algebra are much too easy. They are all of a mechanical character.

History and geography should be compulsory subjects.

HARLEY, A. H.

I would suggest that no marks be published, even on payment of a fee, as it admits the possibility of undue pressure being brought to bear on an examiner. It is sufficient that information should be available for the candidate as to the degree of his proficiency in the various subjects of the examination.

Only roll numbers, and not names, of candidates should be supplied to the examiners. The following might be suggested as one means of preventing confusion:—

A slip should be attached to each answer book and the student should enter on this his name and number; on the answer book he should enter his number only. At the time of collecting the answer books the person in charge should see that the numbers correspond. The slip should then be detached by him and made over to the registrar for safe custody until after the issue of the results.

HOLLAND, Rev. W. E. S.

I would suggest the following, in addition to the proposal made in answer to question 9:—

(*a*) A much more extensive use of *viva voce* examination. The Allahabad University has begun development along this line.

(*b*) A much more elastic system of marking, possibly by using the Oxford system of α, β, γ, etc., and certainly by abstaining from the rigid assignment of a certain number of marks to each question.

HUNTER, MARK.

I would suggest that the Commission, if it visits Madras, should seek information (confidentially) on recent troubles connected with university examinations, on the scheme proposed by a committee of the syndicate appointed for the purpose, and the scheme ultimately adopted in consequence of these troubles. The system adopted was, as originally devised (it has been somewhat modified since),

one of extreme 'externalism'; the other scheme admitted external examiners, but, on the whole, entrusted the conduct of the examination in each pass and honours subject to a small, and very carefully selected, board, composed of persons intimately connected with the working of the courses. The scheme adopted I consider a thoroughly bad one, for this reason, that it divorces the course from the examination. I believe it will break down; indeed, it has partly broken down already.

I may add that the examination in Madras, with which I have been myself most closely associated—the honours examination in English language and literature—has worked very well indeed. It has been conducted on the Oxford lines by four examiners working throughout in consultation, and during the time of the written examination and between the written examination and the *viva voce* working together in Madras itself. Every answer paper has been valued by two examiners (this is a rule in all our honours examinations), and the final class list is drawn up after *viva voce*. The *viva* has been found very useful in the decision of cases 'on the line' and in ranking candidates within a class.

HUQ, The Hon'ble Maulvi A. K. FUZLUL.

I am strongly of opinion that in the conduct of University examinations candidates should not be required to write their names, but only their roll number, and the name of the college to which they belong. There are other matters of detail, but they are all of minor importance.

HUQUE, M. AZIZUL.

Examination should be by compartments. Failure in one subject should not involve a student to appear again in all subjects. It generates dullness, is a waste of energy, and takes away all the sweets from the pleasure of study.

The special honours standard may be abolished, but students obtaining a certain percentage of marks may be declared to have passed with honours. In view of the fact that in the M.A. the standard is equally well followed by pass students I do not think there is any use for an honours course.

HUQUE, Kazi IMDADUL.

Further suggestions for the improvement of the existing methods of University examinations :—

(*a*) Examiners ought to be free from all other duties during the time they are looking over answer papers.

(*b*) They ought to be free to take into special consideration original appreciation of the subject. For example, a smaller number of questions, answered in a masterly way, ought to carry more marks than all the questions answered by cramming prepared notes.

(*c*) The questions ought to be of a type calling for an expression of individual appreciation and power.

(*d*) Only the roll number of candidates should be given on the answer book and *not names*.

HUSAIN, The Hon'ble Mian MUHAMMAD FAZLI, Khan Bahadur.

Examinations are an absolute necessity where large numbers are concerned, and I am afraid cannot be dispensed with. Improve the method, allow latitude to competent teachers, but, in institutions wherein there are thirty pupils per teacher, the examination system is the least expensive to get the greatest amount of work out of the teaching staff not over anxious to work well.

HYDARI, M. A. N.—IBRAHIM, Khan Bahadur MUHAMMAD—IMAM, The Hon'ble Justice Sir ALI—Indian Association, Calcutta—IRFAN, Maulvi MOHAMMAD.

HYDARI, M. A. N.

I would try to arrange, as far as possible, for the same examiner, or sets of examiners, to examine the same question of all the candidates in any particular paper.

IBRAHIM, Khan Bahadur MUHAMMAD.

The practice of putting down only the roll number of candidates, and not their names, on their answer papers may be advantageously introduced to ensure justice and fairness in examination matters in a country which is inhabited by peoples of different communal interests as in the Allahabad University.

IMAM, The Hon'ble Justice Sir ALI.

As I have previously observed, the Indian universities, in the very nature of things, as catering for areas and populations larger than many of the countries of Western Europe, must necessarily be mere teaching universities. For them to become residential and teaching universities on the lines of Oxford and Cambridge seems to me utterly unthinkable and, in the present condition of things (social, economic, and political) in our country, not even desirable. The most that the universities can do is to set up at some specially favoured spot, preferentially at some great centres of population like the capitals of the provinces, an ideal college where the highest attainable method of teaching may be practised and some efforts may be made to bring up the other colleges of the University to that high ideal. I have also stated in my previous answers that such teaching and examinations as the Indian universities impart do supply the needs of the professions of medicine, law, teaching, engineering, agriculture, commerce, industry, and administration in the public services. Research work in science and technology may also be undertaken. Expansion in these directions is feasible, especially with a view to making technical knowledge bear fruit in a lucrative sense. The public services in this country are manned by our graduates. The tendency of the present system of administration is to recruit public servants from the ranks of the University men. It would tend to a greater purity of the public services if they were recruited entirely from our graduates by some method of competitive examinations so as to eradicate nepotism, the choice of favourites of officials. Beyond this I do not think it will be desirable for the universities or Government to undertake any further responsibilities.

Indian Association, Calcutta.

The actual assimilation by the student of the knowledge that is taught, and the growth of his mind, may be weekly, if not daily, tested. Some means must be taken to secure a standardisation of such tests. The result of such tests should be considered along with the result of any examination held at the end of the year. In examining papers the examiner should not go by the marks carried by the question only, but he should have discretion to judge the paper generally.

Students' notebooks and other writings may furnish useful guides for the more frequent examinations.

IRFAN, Maulvi MOHAMMAD.

I beg to suggest that questions on different subjects should not be set by those professors who lecture on them. Questions may be set by professors belonging to European universities. In examining answer papers importance should be attached to the depth and range of knowledge shown by the examinees, and not to the number of answers, as is done at pr sent. On the answer papers candidates should give their respective roll numbers only, and not their names.

ISMAIL, Khan Bahadur MOHAMMAD—JALIL, ABDUL—JENKINS, O. F.

ISMAIL, Khan Bahadur MOHAMMAD.

The examination centres should be scattered still more. To secure complete impartiality in University examinations roll numbers instead of names, of the examinees should be used in answer papers.

Muhammadan interests to be represented in the board of examiners.

JALIL, ABDUL.

(*a*) As far as possible, and with due safeguards, students should be examined by professors under whom they have been trained.

(*b*) The student failing to secure minimum pass marks in a certain subject or subjects should be re-examined in that subject or those subjects only.

(*c*) It should not be compulsory for a boy to study at an affiliated college after his failure in an examination higher than that of the first arts or its equivalent.

(*d*) A greater choice of questions should be offered.

JENKINS, O. F.

The system in vogue in the Calcutta University for conducting examinations in modern languages does not include a conversational test even in the post-graduate courses. This appears to be a serious defect, which is likely to have a vicious influence upon the system of teaching modern languages in the University and its colleges, giving it an impractical turn. Incidentally, the mental training afforded by conversation in a foreign language is perhaps the most valuable feature of its study. I would, therefore, submit for the consideration of the Commissioners the suggestion that, at any rate in the final undergraduate examinations in all modern languages, a conversational test should be instituted. I have recently had occasion to examine a few candidates for Government employment who had shortly before graduated in the Calcutta University. I was greatly surprised by the weakness of some of these examinees in English, both in vocabulary and in grammar. I think this weakness is explained by a review of the type of question paper set in English from the matriculation examination onwards in the Calcutta University. Such papers might fairly be set to students whose mother-tongue is English, but seem quite inappropriate for candidates to whom English is a foreign language, with the grammar and vocabulary of which they are still more or less imperfectly acquainted. I do not understand how a student who has not sufficient proficiency in English to write a few original sentences with idiomatic correctness can be expected to have formed a critical taste in English literature. Therefore, the answers which students give to the numerous questions on literary criticism which appear in the English examinations must be mere echoes of the opinions of others which have been " crammed " for the occasion. I would suggest that due recognition be given to the fact that English really is a foreign language to students, and that the question papers in all examinations for undergraduates should be mainly confined to the explaining of difficulties of grammar and idiom of the language, to the paraphrasing of difficult passages in the authors studied, and to the correcting of mistakes commonly made by Indians in writing and speaking English. Very much smaller space should be allotted to English poetry, and much more prominence given to modern English prose as written by representative living authors. So, too, Persian and Arabic should not be studied merely as dead languages but, in addition to the proposed conversational test, unseen passages taken from modern Arabic and Persian newspapers and magazine articles should be set for translation from these languages. In short, examinations in all modern languages should be made real linguistic tests, instead of being mere memory exercises in second-hand literary and philological scholarship and criticism.

JENKINS, WALTER A.—JENNINGS, The Hon'ble Mr. J. G.—JOHNSTON, Rev. A. B.

JENKINS, WALTER A.

I would suggest that a practical examination be compulsory in intermediate physics and intermediate chemistry and that the University make it compulsory for a student to start his practical work at the same time as he starts his theoretical. It is the custom in some colleges for intermediate chemistry students not to start their practical course until their second year, that is, until they have spent one year at the theory. This custom means that there is little, if any, correlation between experiment and theory.

I would further suggest that arts students be not allowed to take up science subjects except up to the intermediate stage. For the proper understanding of the advanced parts of any science subject a knowledge of allied sciences is necessary and, in the case of an arts student, this is impossible. At present, a student can take M.A. chemistry knowing nothing whatever of physics and mathematics while an M.A. physics student need not have taken chemistry even up to the intermediate standard.

If it be thought desirable to allow arts students to take one science in their final examination I would suggest that, at any rate, the M.A. physics and M.A. chemistry be abolished.

JENNINGS, The Hon'ble Mr. J. G.

I consider that the examinations should be placed, as far as possible, in the hands of boards of examiners, who should practically constitute committees of the several boards of studies, and that these should be subject, as little as possible, to interference from the syndicate or senate. I also think that the boards of studies working under their respective faculties should control the courses leading to the examinations, and that the powers of the syndicate and senate to interfere in details should be small, though these latter bodies, as representing the University, at large, should have a dominant voice as to the general requirements for each stage. The interference of the syndicate, which is a mixed body constituting the executive of the University, in the details of examination, such as the appointment of examiners, or the moderation of question papers and the marks of the candidates, or with the courses leading up to the examinations, should be confined to narrow limits, and is, otherwise, likely to lead to the introduction of the unskilled element, and to a lowering of the standard to a point considerably below that which the specialists would aim at. I have said already in my answer to question 2 that I think that a distinction should be drawn between the cases of the junior and pass students and the honours and post-graduate students.

JOHNSTON, Rev. A. B.

English :—In the I.A. there are so many set books that there is very little time for general teaching of composition and none for reading aloud, which should occupy an important place. There should be a *viva voce* examination in reading aloud the text-books.

B. A. honours :—Apart from the overlapping of this course with the M.A. work, I should like to state my opinion that it is absurd for the whole history of English literature to be set for the B. A., and that the absurdity is heightened when we remember that one or two little set books count a 100 marks, while the whole history of English literature only counts 50 marks.

If the present B. A. honours and M. A. continue there should be set a special period of English literature for the B.A., and the whole only for the M.A. At present, in the B. A., students only have time to cram up a hand-book, and hate the paper. And who would not ? A period should be given small enough for first-hand knowledge of the authors to be expected.

KARIM, Maulvi ABDUL—KHAN, ABUL HASHEM—KHAN, MOHOMED HABIBUR RAHMAN—KO, TAW SEIN—KUNDU, PURNACHANDRA.

KARIM, Maulvi ABDUL.

If an examinee secures high marks in a subject, but fails to obtain pass marks in another subject, he should not be required to sit in that subject at the next examination. Even if examined, attendance at lectures in the subject should not be compulsory.

Arrangements should be made to examine after a short interval (say three or six months) those who get plucked in one subject only. Besides, failure in an unimportant subject need not always be a bar to a student's appearing at a higher examination.

Those whose high proficiency in a particular subject is certified by any recognised institution or society should not be required to pass the University test in that subject. For example, successful students of the senior *madrassahs* and of *tols* should be exempted from examination in an Indian classical language. If their examination be not dispensed with they should, on no account, be required to attend lectures in the subject.

As in the Allahabad and some other universities only the roll number, and not the name, of the candidate should be written on the answer paper.

KHAN, ABUL HASHEM.

Names of candidates should be omitted from the answer books at the examinations.

Plucked candidates who pass in any particular subject may be exempted from the necessity of undergoing examination in the same subject at any subsequent examination.

KHAN, MOHOMED HABIBUR RAHMAN.

They should develop the faculty for original thinking by making it possible for the student to select only those questions in which he is really and deeply interested. At present, this is not possible. In other words, I believe in the Oxford system of examinations.

KO, TAW SEIN.

The curriculum being overburdened should be pruned down. Only what is useful and practical should be retained. An examination may be taken in compartments as at the London Bar or the Edinburgh University.

KUNDU, PURNACHANDRA.

I would like to retain the present system of examination (except in the post-graduate course), subject to the alterations suggested in my answer to question 9 and the following:—

(*a*) The type of questions should be changed from year to year and questions should be set only to test the student's appreciation of the subjects concerned and of such details as are necessary for this appreciation.

(*b*) The highest places, scholarships, and other awards should not be given on the results of the examinations alone, but the teacher's report on the work of the student during the whole course should also be taken into account. The teacher of every subject in each college shall have to submit, at the time of the examination, a detailed report of the work done by only the best students of his class whom he considers fit for special consideration. The theses, essays,

notes, etc., written by these students during the course shall also have to be submitted to the examiners for examination.

(c) In other cases, a student should be required to submit a certificate from his teacher stating that he has systematically gone through the course, as directed by the teacher.

LAHIRI, GOPAL CHANDRA.

University examinations require students to pass in too many subjects, some of which are of little or no use to them in future life. In the matriculation examination a pass in English, mathematics, history, and geography should be compulsory. Sanskrit, Persian, Bengali, mechanics, and hygiene (which last should be added) may be taught as optional subjects, any two of which may be taken in addition to the compulsory subjects. The other conditions of success should remain as they are.

For the intermediate course a pass in English only should be compulsory, and all other subjects, to which higher mechanics and hygiene should be added, should be treated as optional subjects, the other conditions of success in examination remaining the same.

For the B. A. course no subject should be made compulsory, and candidates should be required to pass in the aggregate of three allied subjects only. The course studied in the B.A. classes is to be further specialised in the M.A. classes, attaining their full fruition by research studies.

After passing the intermediate or the B.A. examination each student may choose his own profession and join a college, where he may prosecute his professional studies.

MAHALANOBIS, PRASANTA CHANDRA.

There should be *separate State examinations* to qualify for practice in the higher professions. It is not desirable that a university degree should be considered either a necessary, or a sufficient, qualification for actual practice.

In every profession there are sure to be a certain number of "artisans" who are more interested in the cultivation of the empirical technique or the art of practice, rather than in the scientific development of its theory. For such people a university degree is practically useless. They would far more profit by some kind of practical training in the practice of their professions, which can be best obtained outside the University and, thus, the degree, as such, is not sufficient for their purpose. But, in any case, a general training up to the present intermediate standard should be made compulsory; thus, the "college certificate" will be the normal condition of admission to the professional schools leading to a general license to practice in any of the higher professions.

On the other hand, it is absolutely essential that *degrees* in professional studies should also be instituted. This must be done to encourage independent scientific research in these subjects and should include a good deal of the theoretical and strictly scientific studies, as distinguished from the purely practical.

Some such separation as indicated above has become highly desirable. In Bengal, for example, the professional success of our lawyers and physicians has been really remarkable while the amount of original work done in these subjects remains practically *nil*.

The present overcrowding in the third and fourth years and the post-graduate classes is due, to a great extent, to the fact that the bachelor's degree is a necessary condition of admission to the law college. If the privilege to practice as a vakil is made conditional on passing a law examination (something similar to the examination for enrolment as an attorney), and *not* on obtaining a degree, the present overcrowding will be considerably lessened. At the same time, it would, of course, be necessary to institute an LL. B. examination which will be a purely academic qualification and will not carry any special State privileges.

But, even if the State examinations are separated from the degree courses, it is desirable that the University should retain the major control over such examinations. This is still more necessary in Bengal in view of the special political conditions. A joint board, consisting of members nominated by the Government of Bengal, by the Calcutta High Court, and the University should be entrusted with the conduct and supervision of the State law examination. Similar boards can easily be constituted for medicine and engineering. In fact, the present State faculty for examination in medicine may be reconstituted to meet the above requirements.

In the honours degree examinations the practice of finishing the *subsidiary subjects* one year before the final may be introduced with advantage. My experience in teaching the fourth-year honours class has been that the pass subjects often interfere seriously with the main studies.

In certain cases, for example, in certain portions of the pass practical examinations, the system of *compartments* should be introduced. Until the practical examination in a subject is capable of being conducted in a quite satisfactory manner it, unfortunately, sometimes will happen that a candidate will fail in the practical test more or less for accidental reasons. It is a serious waste of energy to make all these candidates go through the whole course of studies again before coming up for their examination. A candidate who, although securing high marks in the theoretical fails in the practical, should be allowed to take his practical examination alone, and should be exempted from the theoretical paper.

In adjusting the class lists for the B. A. and B. Sc. honours the examination, as a whole, should be considered. There is too much of piece-meal adjudication going on now under the existing regulations. A *joint board* of all the examiners should be made responsible for the class list. My very distinct impression is that in the higher examinations it is thoroughly unsatisfactory to judge of the individual papers too much by themselves without any relation to the examination as a whole.

MAITRA, GOPAL CHANDRA.

Under the existing rules a candidate failing to pass an examination in one subject must, at the subsequent examination, appear in all the subjects, though at the previous examination he passed in some of these subjects creditably. The stringency of this rule should be relaxed by dispensing with his attendance at the subsequent examination in those subjects in which he secured first-division marks.

Students who desire to enter a college, but are rejected for insufficient accommodation, should be permitted to appear at the next examination, provided they pass a college test and are, besides, able to produce certificates to the satisfaction of the University that they have been of good conduct.

A very long period elapses between the examination and the publication of the results. This period should be shortened. This may possibly be done by dividing each paper into two halves, as is done in the case of the B.A. examination.

MAJUMDAR, PANCHANAN.

Students who are very proficient in some subjects, but deficient in others, and who, therefore, cannot pass an examination in the latter subjects, should not be required to undergo examination in the following years in all the subjects.

In order to encourage habits of regularity and steadiness among students there should be periodical examinations, and marks secured by students in these examinations may be taken into consideration at the time of their passing a university examination.

In order to encourage steadiness, and to prevent undue strain upon the energies of students at the time of the examination, the examination itself may be divided into parts, as in the case of the B.L. examination.

MAJUMDAR, RAMESH CHANDRA—MASOOD, Syed ROSS—MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN.

MAJUMDAR, RAMESH CHANDRA.

The rate of examiners' fees should be increased.

Each examiner should look over only a small number of papers (say 300).

The University should formulate definite ideals of examination.

The lecturers in various colleges should be given full opportunity to criticise the questions, and the scheme of marking adopted every year for examination in their subjects.

The *negative marking system* should be introduced to discourage cramming; *i.e.*, if any gross mistake is committed not only would no credit be given to that answer, but some marks would be deducted from the total. This would bring home to every student the risk of depending upon notes alone, without having a general and accurate knowledge of the subject.

MASOOD, Syed ROSS.

They should develope the faculty for original thinking by making it possible for the student to select only those questions in which he is really and deeply interested. At present this is not possible. In other words, I believe in the Oxford system of examinations.

MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN.

In the matriculation classes English is imperfectly taught. The number of text-books is large and diffuse and the authors who have moulded the English language are generally excluded. The books selected are of an inferior type and teaching necessarily becomes of a superficial character. To suppress cramming both the teachers and the taught have been given a wide latitude which practically does away with all opportunities of acquiring a deeper insight into the niceties and peculiarities of idiomatic English language. Given this latitude and amply provided with "keys" and annotations, students seldom consult any dictionary, a careful use of which would not only find healthy exercise for their brains, but also store their minds with much useful knowledge of the different idioms and characteristics of the language. The study of grammar is confined to certain hints which, beyond correcting certain mistakes, serve no useful purpose in learning or writing correct English. All this applies with almost equal force both to the matriculates and the intermediates of the University. Cramming should, no doubt, be discouraged, but this should, however, be done not by withholding text-books, but through a system of examination which would afford very little scope for cramming. Students may be thoroughly grounded in well-chosen text-books; but the examiner ought to exercise great care and thought in testing the real knowledge, which cannot be glozed over by mere cramming. I think the older system of publishing English courses by the University for the entrance and F.A. examinations, with selections from a large number of reputed authors, afforded better opportunities for learning English. The B.A. examination should be made a little stiffer than at present and it should cover a larger area of mythological and historical knowledge. The M. A. degree affiliation should be limited to a small number of well-equipped colleges, or, if possible, confined only to a single efficient post-graduate college of the University. Besides the ordinary examination an aspirant for this degree should prosecute his studies in a library or make his researches in a laboratory, for a term of at least one year and then present to the University an original thesis in his subject which, when approved by the syndicate, should be deemed to qualify the student to this coveted degree. Thus, students of exceptional merit alone should be admitted to the M. A. or any other corresponding degree of the highest order.

MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN—*contd.*—MAZUMDAR, C. H.—McDOUGALL, Miss ELEANOR—MITRA, KHAGENDRA N.—MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur.

History and geography are very much neglected, particularly the latter. These subjects should be more largely taught, both in the matriculation and in the intermediate classes. History without geography is an unprofitable study, and ancient history is not altogether so useless as it is apparently supposed to be. History is also an indispensable handmaid to English.

The vernacular languages should not be merely composed, but also taught, from the matriculation stage. Any two of the following languages should be made compulsory, *i.e.*, Bengali, Hindi, Mahrati, and Telugu. Such an arrangement among all the universities would go a great way towards the establishment of an interprovincial interchange of thoughts and ideas and lead to considerable improvement and development of the vernacular languages.

MAZUMDAR, C. H.

University examinations should be conducted only by those who are in close touch with the teaching of the boys examined.

McDOUGALL, Miss ELEANOR.

An important reform would be accomplished if the students could be convinced that their teachers do not know what questions will be asked in the examination. Time and energy which should be given to study are spent on injurious attempts to find out what are "probable questions".

MITRA, KHAGENDRA N.

According to the present system of University examinations students are required to pass all the subjects in one trial; and failure to pass a particular subject necessitates a complete re-examination in other subjects too. This obnoxious method may never enable a student to obtain his degree in spite of the fact that he passes all the required subjects. This unlogical method of examination should at once be eliminated, and an unsuccessful candidate should be required to pass only the subject which he fails to pass before being eligible for obtaining a degree or entering a university.

MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur.

University examinations for a few hours should not be the only test for fitness of a student. The opinion of the teachers as to the intellectual and mental activities of each individual student, during the whole course of his study, should be taken into account. The marks obtained by students at periodical class examinations should be recorded and an average thereof should be calculated. This average mark should be taken into consideration along with the result of the University examinations. Suppose there were six periodical examinations in which a student gets 12, 15, 14, 10, 6, 13 marks in those examinations, making a total rank of 70 in 6 examinations; the average mark obtained by the student should, therefore, be 11⅔. This should be taken into consideration, along with the results of the University examination, in testing his fitness. The duration of an examination on each subject should be increased, and a larger number of questions should be set in the examination papers. There should be oral examinations, if possible.

MOHAMMAD, Dr. WALI—MUKERJEE, Dr. ADITYANATH—MUKHERJEE, B.—MUKHERJEE, JNANENDRANATH.

MOHAMMAD, Dr. WALI.

Boards of examiners should be created for each subject. They should regulate the various standards from the matriculation to the masters' examination. One-third of the members of the board should retire every year and should be eligible for re-election, but not for two successive terms. This will prevent these posts becoming hereditary, and, therefore, stereotyped, but will ensure, at the same time, some continuity of standard. The system of marking papers should be altered in such a way as to discourage cram and encourage independent thinking.

MUKERJEE, Dr. ADITYANATH.

In order to encourage regular habits of work, and to ensure an even distribution of energy throughout the session, the university examinations should take into account the recorded results of the periodical college examinations. This might be taken at least as a negative safeguard in the sense that no candidate should be "failed" in a subject for having failed to secure a few more marks if his college record in that subject shows good work. A student ought to get some credit for good work done in his college even though it is done piecemeal throughout the session, and there ought to be some collateral security protecting the student against the vagaries of individual University examiners.

MUKHERJEE, B.

The only suggestion I beg to place before the Commission is that of Rev. Garfie'd Williams:—

> "The whole idea of making it compulsory for such a new type of student to pass in every subject in an examination occurring only once a year, and to take the whole examination again a whole year afterwards if he fails, even in one subject, is absurd. A rule like that is all very well for a student who has unlimited time and means, but it is too hard a rule for the type of student with whom we are dealing. It cannot, by any stretch of the imagination, be said to meet the actual needs of the Bengali student who is so desperately poor and often so physically weak and short-lived, and so hampered in his life by the iniquitous early marriages which are blighting the whole future of India, and making a single year of a Bengali student's life correspond to about ten years of the normally situated student in the West."

MUKHERJEE, JNANENDRANATH.

The almost unanimous opinion on this subject makes it necessary to point out in detail the injurious results which the rigours of the examination system has on the health and mind of students. It is rather strange that examination by compartments has not been introduced up to this time. If a student fails to pass in the examination in any section of a subject he is required to appear at a second examination in all the subjects. The logic of this is not at all clear to many of us. The underlying principle of examinations is that it is either a test of fitness or of a certain standard of training. It is evident that the student has attained the required standard in the subject in which he has been successful in the examination. All that is necessary is that he should also attain the required standard in the remaining subjects in order to qualify himself for the University certificate. The fact that the student is required to appear at the examination in subjects in which he has passed before can only show that the University authorities have not sufficient faith in the results of their own examinations.

MUKHERJEE, JNANENDRANATH—*contd.*—MUKHOPADHYAYA, Dr. SYAMADAS.

The other rigours of the examination system come in when students are made to commit subjects to memory because they cannot be reasonably expected to answer the questions put to them. Thus, books like Macaulay's "Essay on Addison" or on "Milton" are made text-books in the intermediate course. Students have, so far, in the prescribed curricula of the University, scarcely read any of the writings of Milton or of Addison; but they are required to discriminate between the wits of Voltaire and Addison—though, perhaps, this is the first time that they have heard the name of Voltaire. A perusal of the University questions will show that students are often—in the intermediate course—required to explain the various allusions to Greek and Roman mythology or classics of which they are generally ignorant. It would be better if students are required and encouraged to read a few more pages of the writings of eminent men of letters in English.

The anomaly of a third-class M.A. and M.Sc. should also be removed. Instead of making a third-class M.A. a special species among the holders of the degree it would be better not to give him the degree at all. A third-class M.A. is not regarded fit to do any teaching work in the University. There should be only two classes of degree-holders.

MUKHOPADHYAYA, Dr. SYAMADAS.

To abolish examinations in as many subjects as possible, and to give teachers liberty to certify their own pupils are both commendable. But, where a large number of students reading under a large number of teachers sits for a common examination, the necessity for an ideal examiner arises. I do not know if he can be created by rules, though he can be, to a large extent, guided by them. The ideal examiner is a man of ripe experience and strong good sense, who has a thorough knowledge of the subject and has actually taught the subject or has kept himself fully in touch with those who actually teach the subject and who can bring out what the candidate knows by simple queries and alternatives. The proper board for the selection of the ideal examiner in any subject must consist of teachers in that subject.

I should be disposed to give more credit to elegance and method, than to volume and speed. I should like to introduce in each question paper the headline "In awarding marks neatness and method will be taken into account." I should like to reduce the number of questions in each paper to such an extent that the paper could be answered in two-thirds of the time allotted. I should like to introduce an optional problem paper in matriculation mathematics and so raise the standard that the additional paper merges into the compulsory. Similarly, in the matriculation English, I should like to make a paper on unseen passages optional, and introduce some good selections of modern English literature into the compulsory.

Candidates who have obtained a fair aggregate of marks, but are ploughed in only one subject, might be allowed to appear in that subject alone in the next examination.

(*a*) I am in favour of English being the medium of instruction and examination at every stage above the matriculation examination.

(*b*) I do not think that Indian students, on their entrance to the University, have an adequate command of English, because English is not their mother tongue and because school teaching in English is defective.

(*c*) I believe that vernacular as a medium of instruction appeals more strongly to the understanding of the Indian student and I am in favour of making English and vernacular alternatives as media of instruction in the schools. In secondary schools instruction should be largely given, though not entirely, through the medium of the English language, in the two highest classes.

(*d*) I am not satisfied with the training in English, as also in other subjects given in schools. The remedy lies in providing schools with more efficient teachers. There should be an M.A., strong in English, on the staff of every important school. Fluency in speaking and writing English should be chiefly aimed at.

but a text-book of selections from the best English authors should not be altogether dispensed with.

No real improvement in school teaching is possible without an improvement in the pay and prospects of teachers. It is notorious that the majority of school teachers are so poorly paid that they are obliged to maintain themselves by private tuition and, thus, have not much energy left to do their four or five hours' work at school properly. I would suggest the curtailment of their teaching work to three hours and the prohibition of private tuition, at least to their own boys, as guardians are often tempted to engage as private tutors those who teach the boys at school for reasons which will not bear much scrutiny.

(*e*) I would lay more stress on the practical teaching of the English language in schools, than on the teaching of English literature. I would suggest the introduction of a *viva voce* test in English at the matriculation.

(*f*) I would suggest for the matriculation examination, in subjects other than English, the alternative of English or the vernacular as the medium. If we insist that the answers, even in such a subject as geometry, should be written either in correct English or correct vernacular, my impression is that the boys would generally prefer English. At present, we have often to condone bad geometry written in English on the ground that, possibly, the bad geometry is only bad English.

(*g*) After the matriculation I would advocate no alternative to English as the medium for examination. Up to the intermediate, however, I would not differentiate as regards the test in English between boys who take a literary course and those who take a scientific one. A paper on essay-writing may be insisted upon in every examination up to the B.A. or B.Sc. Some text-books on the history of science, or biography of scientific men, may be prescribed for B.Sc. students.

(*h*) The penmanship of the Indian student is, in general, deplorable. I should like to reserve some marks for good penmanship.

Murarichand College, Sylhet.

We are unanimously agreed that no book shall be prescribed for a university examination which has not been previously read and approved of by some of those who will have actually to teach the book.

There are some amongst us who would abolish the intermediate examination and have the B.A. examination three years after the matriculation.

NANDI, MATHURA KANTA.

In the matriculation examination examiners should be selected from teachers intimately concerned with actual teaching work in the highest classes. In my opinion, head masters may be required to send to the University an account of the progress of candidates along with their fees. In case of failure, this may be taken into consideration in the disposal of their cases.

NEOGI, Dr. P.

The number of University examinations is unnecessarily too large. For example, a student who wants to be an M.A., B.L. (the most popular degree of the University) has to pass as many as seven university examinations, four in the general line and three in the B. L. course. Similarly, an M.B. has to pass at least five examinations,

NEOGI, Dr. P.—*contd.*

Judging from the large amount of mental and physical exhaustion caused by the examinations it is not surprising to find that the great majority of the best students of the University emerge from it as so many physical wrecks. I am of opinion that some of the university examinations may very well be converted into college or class examinations, the standard and courses of study remaining the same as before. The advantages of class examinations are that the general qualifications of the student, as well as the marks of the periodical examinations of the college, can be taken into consideration. I would suggest that the *following university examinations may easily be converted into college examinations :—*

(*a*) I. A. and I. Sc. examinations.
(*b*) Preliminary and first examinations in law.
(*c*) Preliminary and scientific M.B. examinations in medicine.

I would keep the matriculation examination, and would not have it replaced partially or wholly by a school-final examination for the reason that an uniform university examination should be held to test the students' knowledge acquired after a ten years' study in schools.

I am decidedly of opinion that degree examinations should be held by the University only, and that no individual college should be permitted to grant degrees.

The *standard laid down for the matriculation examination is abnormally low*, with the result that a very large percentage of students enter the University with a very inadequate general knowledge. Moreover, *specialisation has been carried too far in an examination which should aim at imparting a general all-round education, leaving specialised education to higher examinations.* For instance, in the matriculation examination English literature is not taught (only questions on grammar and composition being set), and Indian history and geography are optional subjects. English history has been tabooed, and mathematics and Sanskrit (classical languages) have been divided into two subjects each—compulsory and optional. No science teaching has been introduced, though the abstruse subject of mathematical mechanics is an optional subject.

The matriculation examination should be thoroughly overhauled. Two principles should be accepted, *viz.*, specialisation is not meant for this examination, and it should aim at imparting general, though elementary, knowledge on a variety of useful subjects. I would suggest that the *following subjects be made compulsory in the matriculation examination :—*

(*a*) English (selected pieces, grammar, and translation).
(*b*) Vernacular.
(*c*) Arithmetic, algebra, and geometry.
(*d*) History of India and England (elementary).
(*e*) Geography.
(*f*) Classical language.

In addition, *two of the following subjects should be made compulsory :—*

(*g*) Elementary physics and chemistry.
(*h*) Agriculture (elementary).
(*i*) Domestic and personal hygiene and sanitation.

Every school affiliated in physics and chemistry should have a small laboratory attached to it, and in agriculture a small agricultural farm. There will, however, be no practical work or examinations in these subjects. Hygiene and sanitation should be taught in the matriculation standard, as every student ought to be acquainted with the general principles of sanitation, especially in a country like ours which is the home of various tropical diseases.

I am strongly in favour of adopting the *vernaculars as the medium of instruction in secondary schools* and would urge that, so far as Bengali students are concerned, they should compulsorily answer their questions in Bengali. Candidates with other vernaculars may have the option of answering questions either in English or in their own vernaculars. I have developed the subject of vernaculars as the medium of instruction in secondary schools whilst answering questions 11 and 12.

NEOGI, Dr. P.—*contd.*—North Bengal Zamindars' Association, Rangpur—PARANJPYE, The Hon'ble Mr. R. P.—RAY, BAIKUNTHA CHANDRA—RAY, JOGES CHANDRA—RAY, MANMATHANATH.

I would retain the distinction between the I.A. and I.Sc. examinations as experience shows that the combination of science subjects in the I.Sc. examination is an ideal one. To permit I. A. students to take science subjects may be a counsel of perfection but, in practice, is unworkable, as a very few seats in practical classes remain to be distributed amongst arts students after admitting students who take up two or three science subjects and should, therefore, get precedence in such admission.

I would also retain the existing distinction between B.A. and B.Sc. students. Arts students in chemistry or physics classes are a drag on the whole class and should not, on any account, be encouraged in taking those subjects. English should not be made either an optional or compulsory subject in the B.Sc. examination.

These examinations should be conducted in each subject by an *equal number of internal and external examiners*. At present, they are conducted by internal examiners alone.

North Bengal Zamindars' Association, Rangpur.

In university examinations a student plucked in any particular subject or subjects should, on future occasions, be examined only in the subject or subjects in which he could not secure pass marks. District and sub-divisional schools should be centres for the matriculation examination. All first-grade colleges should be deemed as centres for I. A. and B. A. examinations. All second-grade colleges may be centres for the I. A. examination.

PARANJPYE, The Hon'ble Mr. R. P.

As to the actual machinery of conducting university examinations I think that, according to all authorities, the Bombay system is practically perfect.

RAY, BAIKUNTHA CHANDRA.

Examinations should be conducted on a definite plan to find the general stock of knowledge in a particular subject possessed by a student. At present, the tendency is to test the fitness of a candidate for a degree by his ability to answer set questions.

Examinations should be arranged so as not to throw undue strain on the student. The examination should be taken, as far as possible, in parts, and the candidate should be called upon to know a few subjects at a time, but know them well.

RAY, JOGES CHANDRA.

The system of having both internal and external examiners may be introduced, even for the degree examination. There may be the risk of showing partiality to students by their teachers. Sometimes this will happen; but, as there is no other way of softening the rigour of the examination, we must put up with the occasional abuse by teachers. In time, this will correct itself in view of public criticism. The method advocated is Indian, and indigenous. In the *tols* of former days professors uesd to declare their pupils as proficient when the latter showed evidence of proficiency to the teacher, and also to other renowned professors. The declaration was made by the award of suitable titles by the teachers, after which the students left the *tols*.

RAY, MANMATHANATH.

This has been partly answered by me while answering questions 1 and 9. I make, however, the following additional suggestions:—

(*a*) Thoroughness and depth of knowledge should always be insisted upon, and not extent or area.

RAY, MANMATHANATH.—*contd* —RAY, SARAT CHANDRA—ROY, HIRA LAL—ROY, The Hon'ble Babu SURENDRA NATH—RUDRA, S. K.

(*b*) The regulations of the B.L. examination should be so altered that none who has not passed the peliminary examination should be allowed to join the intermediate class, and none who has not passed the intermediate examination should be allowed to join the final class. The Commission may also consider the question whether it is desirable that a student should be allowed to attend the M.A. and the B.L. classes at the same time; if not, the B.L. course may be reduced to two years, instead of three years, as at present.

(*c*) The percentage rule should be relaxed to a larger extent than is done at present; and the permission to students to appear as non-collegiate students should be granted more frequently and on all reasonable grounds; the percentage rule should be relaxed whenever the principal of the college from which the candidate comes recommends it.

RAY, SARAT CHANDRA.

The existing method of all university examinations should be changed on the lines indicated in my answer to question 9. In examinations, other than that of law, examinees should be given opportunities of showing their real knowledge, rather than repeating from memory what they have learnt by rote.

ROY, HIRA LAL.

I beg to suggest the following steps:—

(*a*) Adoption of the "compartment system" of examination. Students may be allowed to offer themselves for examination in some subjects at the end of each year, instead of piling them all up for the final year.

(*b*) Omission of questions demanding too much knowledge of details, as explained in my answer to the first question.

(*c*) Laboratory work of students throughout the year should carry at least 50 per cent of the total marks of the practical examination in the final.

(*d*) Credit should be given to essays and theses written in arts courses throughout the academic year.

(*e*) To cut down the undue importance attached to the results of examinations the names of students obtaining first and second-class honours should be published in their respective classes in alphabetical order, and not in order of merit. It is rather a wonder how the University can distinguish between the merits of students by two or three marks. The system is unjust and unsound; it appears more so when we know that this result decides the career of a student in after-life. To fulfil the above recommendation the present system of awarding scholarships should be remodelled.

ROY, The Hon'ble Babu SURENDRA NATH.

The degree examinations should be held in compartments and, if any student fails in any one subject, he should be re-examined only in that subject.

RUDRA, S. K.

As far as possible, the mechanical method of marking for each question should be abandoned. An answer paper should be always viewed as a whole.

SAPRU, The Hon'ble Dr. TEJ BAHADUR—SARKAR, AKSHAY KUMAR—SARKAR. BEJOY KUMAR—SARKAR, GOPAL CHANDRA.

SAPRU, The Hon'ble Dr. TEJ BAHADUR.

Should the present system of prescribing a number of subjects for the intermediate and the B.A. examinations be allowed to continue I would suggest that those candidates who failed to obtain the necessary number of marks in any one particular subject should be examined only in that subject at the next examination. The frequent changes in the curriculum make it very often extremely difficult for unsuccessful students to keep abreast of those who have been studying what are to the former new books. The result is that very often these unsuccessful men have to traverse the course for the next examination in the course of one academic year while it should have been done in two years. This leads necessarily to unsatisfactory results. But if the suggestion made by me in answer to a previous question with regard to the abolition of the intermediate examination, and the reduction of the subjects of study for the B.A. examination is adopted, I do not think that the suggestion which I have just made will require any consideration.

SARKAR, AKSHAY KUMAR.

The existing method of university education may be improved by taking into consideration the teacher's opinion, the college records regarding the student, and by abolishing the head examiner system and giving up the attempt to secure uniformity by the present mechanical methods. The examiners' hands in the I.A. and matriculation examinations are tied down by " the points in answers " accepted in their conference. The selection of head examiners, if the system continues, should be strictly limited to men of the highest reputation and knowledge in their subjects so that examiners may feel that they are under the guidance of a great authority on the subject.

SARKAR, BEJOY KUMAR.

Undue prominence should not be given to text-books, as at present.

The number of text-books should be reduced. In fact, not more than one comprehensive text-book is required in many cases. There should be suggested a reading of appropriate topics from other books. This is essentially necessary. Even those who want really to study and think for themselves over particular questions find it difficult to do so as they fear they may spend too much time on a particular book and fail, for want of time, to read the other books. I have been told this has happened with many able students. The most essential thing is the stimulation of thought and independent judgment; and this end may at least partly be achieved by the proposed scheme.

There ought to be periodical tests which should count for final success. This would eliminate, to a great extent, the element of chance in the examination, and ensure regular and systematic study throughout the year. This can be easily done where teaching is centralised, as in the post-graduate department.

SARKAR, GOPAL CHANDRA.

The standard of proficiency demanded should not be regulated by the level of proficiency likely to be attained by candidates who are of the average or below the average merit.

Considering the present unmanageable number of candidates the task of conducting the matriculation examination presents very great difficulties to the University authorities. The task may, therefore, be delegated to the Education Department which now controls all secondary schools. This examination being a test of a candidate's fitness for admission to the University, a common examination for all candidates is hardly necessary. Candidates in the affiliated schools in each of the administrative divisions

of the province may be tested by a common examination conducted by the educational officers in each division, in accordance with the rules, and in the course and subjects prescribed by the University. There will be variations of standards if a separate examination is held in each division; but such variations will be open to less objection than the present mechanical system of regulating the award of marks by a host of examiners.

SARKAR, KALIPADA.

The age-limit should be done away with. It is an artificial barrier, checking the progress of intelligent boys. If the syllabus prescribed is suitable and comprehensive, if the teaching imparted is good, and if the examination held is sound and thorough I see no reason why any arbitrary restriction should be placed on the progress of intelligent boys on the score of age. The percentage of boys held back in this way is large. The largest high school in the town (the Municipal High English School), with a total roll of 586 students, has over 70 boys who would, in due course, be debarred from appearing at the matriculation examination, simply because their age at the time of the examination would fall short of the prescribed minimum only by a few months. The Chittagong (Government) Collegiate School has 17 such boys out of a total of 225. This gives a percentage of nearly 8. I have taken two of the best schools in Chittagong to illustrate my case. The teaching and discipline in them is of the best. Cram is at a minimum. It is not, therefore, unreasonable to think that the large percentages of boys noted above are really fit in every way to go in for the matriculation examination before the age of sixteen.

The age of a matriculation candidate is about eighteen years in the case of Muhammadans, but a year less in the case of Hindus. There is, therefore, nothing unusual in the fact that intelligent Hindu boys, at least, are able to compete at an age a little less than sixteen, and I consider it a great hardship if one in every ten is held back arbitrarily.

The moral evil arising out of the present restriction is also very great. Those that are in the know will bear testimony to this statement.

The matter, I submit, deserves the serious attention of the Calcutta University Commission.

The rule of examining a plucked student in all subjects, except in those only in which he fails, should be abandoned.

There is much room for improvement in the nature and quality of the questions set. Their sole aim should be to test the general knowledge of candidates. It is quite feasible to render pass by cram impossible.

The matriculation curriculum should be revised and made more comprehensive. History and geography should be made compulsory, as before. Specialisation should begin after the matriculation. A matriculate should have a general knowledge of all the *ordinary* useful subjects of study.

SASTRI, Rai RAJENDRA CHANDRA, Bahadur.

None but really good men with first class qualifications should be appointed examiners for higher examinations, and their number should be kept within reasonable limits. The present practice of unduly multiplying the number of examiners stands in the way of securing uniformity of standard in examining the answers of candidates. Head examiners should be men of exceptional qualifications, and greater care should be taken in securing the services of men who would not be amenable to any sort of outside influence. In the M.A. examinations in Sanskrit I should, speaking generally, like to do away with the present practice of appointing pandits who possess only an in different knowledge of English as examiners, and of dividing a question paper into two halves to suit the convenience of such examiners. The practice of appointing university professors as paper setters and examiners in the subjects in which they lecture should also be discontinued, the present practice has given rise to complaints which

SASTRI, Rai RAJENDRA CHANDRA, Bahadur—*contd.*—SEN, B. M.—SEN, BENOY KUMAR.

are, unfortunately, well-founded in most cases. The practice of setting optional questions should be discontinued for the matriculation, the intermediate, and the B.A. examinations, and only sparingly resorted to for the M.A. and M.Sc. examinations. Paper setterships in a particular subject should be given only to first-class men or to men who have earned a reputation for special proficiency in that subject.

SEN, B. M.

The first thoughts of any educational reformer ought to be concentrated on secondary education. The profession of a teacher is hardly looked upon as an honoured one. This is due, to a large extent, to the insufficiency of the prospects and lack of opportunities for initiative. The first need is, therefore, an adequate supply of trained teachers on adequate pay and prospects. It is then, and then only, that the schools might be relied upon, for providing instruction without rigid adherence to the curriculum.

It would be desirable to abolish the intermediate examination to give the colleges more freedom in teaching. But they must be brought to a higher state of efficiency—staffed with better men on adequate salary. The inadequacy of the latter in private colleges is a crying evil, and requires speedy removal. The tone of all the colleges must be improved, for the inefficiency of one would naturally affect the others.

As matters now stand, it is not possible for the University to have direct control over undergraduate studies. The only indirect means is examination and inspection. The question papers are, however, usually framed to suit the convenience of the average student. While realising that the stiffness of its examinations is not the measure of the success of a university I beg to submit that there ought to be some test questions whereby boys of merit can distinguish themselves.

For post-graduate studies, however, the teaching should directly influence the examination, which ought to be subordinated to the former. But there is the danger of undue lowering of the standard if the teaching is not in the hands of really capable men. The present arrangement of post-graduate studies in Calcutta does, I am afraid, suffer from this drawback. The classes are unduly large, the greater number of the boys lack the previous training necessary for advanced studies, the result being, in some cases, an unsatisfactory level of teaching.

Admission into all the public services, except the police and excise, ought to be by some form of competitive examination different from that of the University. The present system of admission on the strength of recommendations and family connections has a very demoralising effect on students. It is a serious obstacle to a spirit of fellowship with teachers, which it is one of the ideals of a university to foster. Besides, it creates discontent.

SEN, BENOY KUMAR.

I should like to suggest two reforms in this direction :—

(*a*) The practice of setting alternative questions should be done away with in the lower stages, *i.e.*, in the matriculation and intermediate examinations. It must be borne in mind that the underlying idea of the examination system is to find out whether the student knows everything that is worth knowing in any subject. There is a minimum amount of knowledge—the essential broad principles of a subject—without knowing which a student cannot be said to possess a passable command over that subject. Questions should be set on these general principles, and no alternative should be allowed. Under the existing system, an excessive use of alternative questions has made the examination a farce, for it makes it possible for a student to get a pass without knowing even half his subject—though the University pass certificate will lead the public to think that the student knows the whole of the subject. The University is thus helping to cheat the public.

(*b*) To correspond to the practical examinations in science subjects I should like to suggest *viva voce* examinations in the honours and the M.A. examinations in arts subjects. This will give a chance to the examiners to know more surely the inherent merits of a student, who will not receive much help in this matter by memorising note-books.

SEN, Rai BOIKUNT NATH, Bahadur.

Examination by compartments may be introduced. This would induce the students to read a larger number of books from the library which are not included in the curriculum.

SEN, PRAN HARI.

Questions may be so framed, and the examiners so instructed, that merit and proficiency, rather than the number of questions answered and mere memory work, might furnish the basis or standard for allotting marks and for determining the place or position of an examiner.

SEN, Dr. S. K.

In medicine the practical, clinical, and oral test should be more thorough. The dispensary system of training senior students should be introduced.

SEN, Rai SATIS CHANDRA, Bahadur.

The nature of questions should be of such a kind as would test the general fitness and originality of students, and would not encourage cramming.

SEN, SATISH CHANDRA.

The existing methods of University examinations may be further improved in the following ways :—

(*a*) Questions should not be very lengthy. At present, questions are very often of such enormous length that students have little time to think over them and, unless they have the answers at their finger-end, they can hardly do justice to the papers set.

(*b*) A student who has failed, owing to shortage of marks in one or two subjects, should not be compelled to sit for a fresh examination in a subject or subjects in which he has secured at least 45 per cent marks.

(*c*) There should be head examiners for all examinations, including the B.A., and their number should be increased where necessary. They should have their work so divided among them as to secure as much uniformity as possible in the work done by under-examiners.

(*d*) In the matriculation examination the examining body should consist of a larger element of experienced high school teachers, some of whom should also assist in the framing of questions.

(*e*) In the higher examinations the system of valuing answers by numerical marks assigned to each question should be abolished. In the matriculation examination the marking system should continue, but credit should not be given for an answer which may be partially correct, but, taken as a whole, reveals a deplorable ignorance on the part of the student.

SEN, SATISH CHANDRA—*contd.*—SEN, SURYA KUMAR—SEN GUPTA, Dr. NARES CHANDRA.

(*f*) Incorrect passages should not be set for correction.
(*g*) The examination in Sanskrit should be such as to require candidates to answer some questions on the text in Sanskrit, and in the vernacular, such as to require some knowledge of vernacular literature.

SEN, SURYA KUMAR.

The Commission may be pleased to consider the question of abolishing the intermediate examination by raising the standard for the matriculation examination and by prescribing a three years' course of study for the B. A. examination.

SEN GUPTA, Dr. NARES CHANDRA.

The present method of examination may be improved in the following respects :—

(*a*) Avoiding multiplicity of examiners as far as practicable. The holding of the same examinations at the commencement of each term would substantially reduce the number of candidates at any single examination and make it possible to reduce the number of examiners. I suggest this to reduce the possibility of wide differences in the standard of examination in different papers.

(*b*) Giving greater freedom to examiners. At present, the University issues elaborate rules to paper-setters and examiners which unduly handicap them. This has led largely to the adoption of more or less mechanical standards by examiners, and prevents really deserving candidates from getting their deserts. Marks should be awarded very largely on the basis of the impression produced by the whole paper, rather than divided between the various items of the different questions, as now.

(*c*) *Viva voce* examinations should be introduced as supplementary to written examinations where possible. There should be no set questions, but the examiner should ask such questions as arise in the course of the examination.

(*d*) In the higher examinations, such as the B.A. honours, M.A., M.L., at least, attempts should be made to test the ability of students to use reference books. For this purpose, students should be permitted the use of libraries in answering questions.

(*e*) Essays and theses written out of the examination hall and notes of laboratory work certified by professors should take a prominent part in the higher examinations at least.

(*f*) Unlimited opportunity for failures should not be given to candidates in any examinations. For the M.A., M. L., and similar examinations, which ought to connote a high degree of ability, not more than two chances should be given to any candidate. In all examinations three chances should be the utmost that may be given. Under the present system, candidates have been known to appear seven times in the same examination.

This I consider very undesirable. Prolongation of the period of education is an economic loss to society, which is deprived of the services of the pupil, and should not be permitted unless the individual shows special talent to improve by education. Perpetual failures in examinations are proofs against a candidate having such capacity. Further, university degrees ought to stand for a certain quantity of talent. Given an infinite number of chances an average student may pass any examination in the world. But the pass, under these circumstances, does not imply a high degree of talent such as is, presumably, present in those who pass in the first chance. A second, or a third chance at the outside, may be given, to eliminate the accidents of examinations, but no more. And, in all cases where a candidate fails to pass in the first chance, he should not be classed.

Serampore College, Serampore.

Whatever be the cause, the existing method of examination results in a high percentage of matriculation candidates being passed, many of them lacking due preparation for a university career; but we think that the changes we have proposed in answer to the other questions relating both to schools and colleges would go far to remedy the present evil.

We desire to draw attention to the fact that the kind of paper now sometimes set makes it necessary to mark in a highly mechanical way. An examiner often feels when he has come to the end of a paper he has examined that the examinee should fail but, on reckoning the marks assigned—many of them for little details that are no real test of ability—he finds that pass marks have been secured, and the present system thus compels the examiner often to pass candidates whom he deems unworthy. If the proposals we have made be carried out tests of ability would inevitably tend to take a less mechanical form.

We consider that a system of moderation is necessary, even in the higher examinations, in order to secure a reasonable degree of uniformity. With this end in view we attach importance to meetings of examiners in specially arranged groups. Examiners and paper-setters living a long distance from Calcutta have now a real grievance as their travelling expenses are not met. We think it would be to the interest of the University to treat examiners with liberality. More efficient work would, in our judgment, be secured if the fees of examiners and paper-setters were put back to the scale in existence under the old regulations. We are afraid it must be admitted that the character of the average man's work, even in the educational sphere, is largely dependent upon the money paid for getting the work done.

As one means of raising, in many cases, the standard of admission to colleges, we suggest the institution of post-matriculation courses for properly equipped schools. We are not in favour of lowering the age of admission to colleges. Provided every effort is made to better the equipment of existing high schools, and to institute for the best of such schools definitely recognised post-matriculation courses, we think the age of admission to college, especially for honours students, might be raised, and the length of the college course correspondingly reduced. If the passing of a matriculation test is kept distinct from the age of admission to college there is no need for imposing any age restriction in the matter of matriculation. No useful purpose would be served thereby. We think that students who have taken a post-matriculation course extending over two years in a properly recognised school should be allowed to qualify for the B. A. honours after three years' academic study, and for the M. A. after another year. For the ordinary pass student the course might be six years after matriculation, as at present. The post-matriculation school course should not be the same as the ordinary I.A. course, but its equivalent in educational value.

SHARP, The Hon'ble Mr. H.

In addition to the matters noted in answer to question 9 and elsewhere, including the establishment of several academic bodies, I suggest the following points :—

(*a*) Means should be adopted for securing the most suitable persons as examiners. With this end, the selection of examiners should not be permitted to get into the hands of a clique.

(*b*) Considerable resort should be had to the help of outside examiners.

(*c*) Elaborate measures are adopted in the regulations for the moderation of papers. It is difficult, however, to see how any very effective system of moderation can be worked in face of the large numbers to be dealt with in some of the examinations.

(*d*) Oral examination is essential as a supplement to written work. If possible, it should take place after the written work has been valued. Some practical test should be required in the case of students who take science.

SHARP, The Hon'ble Mr. H.—*contd.*—SHASTRI, PASHUPATINATH.

(*e*) Sometimes the question papers are too stiff, though this is by no means invariably the case. A straightforward paper is required which will enable a boy to show his knowledge of a subject in its entirety. Papers framed merely to detect ignorance are useless.

(*f*) The pass marks accepted at Calcutta are far too low. I have already referred to the memorial presented by certain experienced members of the senate in 1906-07. That memorial pointed out the inadequacy of the pass marks, suggested 40 per cent, but stated that 50 or 60 per cent would be more appropriate. I have already stated the pass marks accepted at the matriculation examination. For the intermediate and B.A., the pass mark is generally 30 per cent, with the exception of intermediate English and B.A. vernacular composition, where it is 33 per cent, and intermediate vernacular composition, where it is 36 per cent. The obtaining of 30 per cent in a paper is no indication of sufficient attainment, especially when, as I understand is the case, grace marks are given. It is hardly to be supposed, in view of the apparently relaxed conditions of admission, that the class of student who proceeds to university courses is better qualified than formerly. Yet the percentage of success has risen at the intermediate from 34·1 in 1903-07 and 47·0 in arts and 63·0 in science in 1913-15, and that at the B.A. from 21·0 to 52·2. I consider that fairly simple, straightforward questions should be set calculated to show the students' knowledge over the whole subject, rather than to probe his ignorance; and that the marking should be high and strict.

(*g*) Another matter which requires investigation is the extraordinary increase in the percentage of boys who pass in the first division. I have not the latest figures by me; but the percentage of passes in the first division to the total number of passes rose from 12·3 per cent in 1906-07 to 50·9 in 1911-12 at the matriculation, and from 8·7 to 24·5 at the intermediate.

(*h*) I believe the system is still in vogue whereby a definite number of marks is allotted to each question. I do not like this system, and should prefer to see the examiners given a freer hand. But I realise the difficulty with a host of examiners and examinees.

(*i*) Greater attention might well be paid to orthography, neatness, and the power of expression.

(*j*) I seldom examine a student's books without finding several "keys" among them. These are generally distinguished from useful commentaries by the fact that they contain paraphrases (often lifeless) of most of the book. They frequently also contain misleading synonymous phrases and sometimes errors of grammar and spelling. I understand that the University does not permit the authors of such works to become examiners. But this rule is obviously easy of evasion. More drastic steps are necessary. Marks might reasonably be deducted from answer papers which give evidence of over-reliance on such works.

SHASTRI, PASHUPATINATH.

The number of examinations ought to be curtailed; as, for example, the present intermediate examination may be abolished. It may be replaced by a class examination, or the standard of the matriculation examination may be raised a little higher.

The examinations ought to be held twice a year. If any student fails to take the first chance he will not have to lose one full year. It is desirable that if a student gets plucked only in a particular subject he should be allowed to appear for that subject only within as short a time as possible and, if he succeeds, he should be passed. It is useless and, at the same time, very cruel to compel the student to go through the whole course over again. There is loss of time and energy for nothing, and the career of many an unfortunate student is cut short in this way. It is also desirable that the examination be finished and the results come out as soon as possible. The present B.A. and B.Sc. examinations are held during some four or five weeks. The candidate is examined in one subject on the first day of the

month, then in another subject on the fifteenth day of the month, and then in another subject on the fourth day of the next month. To be kept in continued suspense is detrimental to the health and mental conditions of the candidate.

It is very desirable that a student finish the University course as early as possible. The average age of the Bengali is not more than fifty years. If he has to spend one-half of his life at the University his future life will surely be very short.

SHASTRI, Dr. PRABHU DUTT.

I would make the following suggestions for the improvement of the existing methods of University examinations:—

(*a*) Examinations should be written, as well as *viva voce*.
(*b*) The practice of "examination by compartment" should be encouraged.
(*c*) For the matriculation and the B.A. an oral test in English reading and conversation should also be instituted.
(*d*) The intermediate examination should be abolished.
(*e*) "Class-record" should be definitely recognised along with the University test.
(*f*) Honours students in the B.A. should not have as many as *six* or *eight* extra papers, but not more than *two* papers, in addition to being required to submit a short thesis on an approved subject connected with the course of their studies.
(*g*) M.A. candidates should also be required to submit a thesis, to undergo a *viva voce* test, and also a written test in not more than four papers.

SHETH, Pandit HARGOVIND DAS T.

The existing system of university education is deficient inasmuch as it consists more of cramming work than practical understanding, *e.g.*, a candidate for M.A., with *Prâkrit* as his optional subject, is required to study three grammars, a number of plays and dramas, and other works. He is required to study grammar and language simultaneously, which means that he is required to study the language without properly knowing the principles of grammar. Again, the list of books prescribed is so lengthy that a candidate hardly has sufficient time to go through the whole course. To avoid some of the difficulties of the type I am inclined to suggest:—

(*a*) One grammar may be selected for class reading, and the lecturers may point out the differences of opinion among several grammarians during the course of their lectures. This will save a great deal of time and trouble on the part of the candidate and will give him the desired quantity of knowledge.
(*b*) Instead of prescribing a number of authors in plays and dramas and *Kavyas* the lecturers may be required to criticise the methods of several recognised authors and compare them in their lectures.
(*c*) Candidates may be required to prepare certain old works for editing before they go for their degree examinations.

SINHA, Kumar MANINDRA CHANDRA.

Many improvements may be suggested, but they all involve enhanced expenditure, which under present conditions is not possible.

SINHA, PANCHANAN.

Plucked candidates should not be compelled to go through their college course once again. They should be taken as passed if they can pass only in the subject or subjects in which they failed previously.

SMITH, W. OWSTON—SUHRAWARDY, Z. R. ZAHID—TARKABHUSHANA, Mahamahopadhyaya PRAMATHANATH—TURNER, F. C.

SMITH, W. OWSTON.

As there are fundamental differences of opinion I would have one university controlled by men of the kind described in my answers to questions 2 and 5, which might be referred to as the Camford (Cambridge and Oxford) type, and another managed by distinguished lawyers and politicians somewhat on the present lines, but with some safeguards to prevent excessive overcrowding and such evils. This would not aim at being residential.

SUHRAWARDY, Z. R. ZAHID.

There should be more alternative questions. Questions should not be so set as to enable the student to reproduce what he has read in text-books and keys, but they should be such as to test his ability to apply such knowledge in a practical way. If a student fails to pass in one subject, and does well in most other subjects, he may be given another chance in that one subject, say, within a month of the examination, but, in the event of his passing, he should get no class.

TARKABHUSHANA, Mahamahopadhyaya PRAMATHANATH.

The system of marking at present prevailing should be modified. Not rarely is it found that a mechanical system of assigning marks, both integral and fractional, results in the failure of a candidate who deserves to pass, and in passing another whose only merit is his imperfect and scrappy knowledge of everything and depth in none. This is not to deny the advantages which such mechanical marking otherwise enjoys—in reducing the effects of eccentricity in examiners to the attainable minimum. Examiners ought to be allowed freedom in determining whether the candidate deserves a pass. What division he is entitled to can be checked by the powers of supervision and revision by the head examiner or board of examiners.

(ii) The Dacca University Commissioners rightly remark:—"The single examination in several subjects at the end of the course looms too largely in the career of the student and he is tempted as he approaches the obstacle to overcome it by an heroic effort of cram". As a remedy for this the Commissioners suggest "examinations by compartments", a suggestion with which I am in entire accord, excepting in the matter of arranging the compartments. Subjects ought to be grouped together according to some principle of logical alliance or affinity and studied together in the same period. To take a concrete illustration, if a student takes up English, Vernacular, and Sanskrit, he might, with profit, carry on his studies in the three together. Economics and history, likewise, might be combined.

(iii) The necessity of an oral and conversational test ought to receive recognition. An oral test calls into play special qualities on the part of students. Facility of expression, steadiness of nerves, readiness of recollection have all their use in after-life. As the University perpetuates itself by training able teachers, and as teaching is the art of communicating ideas, the need of an oral test, especially in the higher stages, is easily established.

TURNER, F. C.

I am of opinion that the standard of the different classes in the M.A. and M.Sc. and in the B.A. and B.Sc. honours examinations varies from year to year to a far greater degree than is necessary. In order to lessen this variation I suggest that the papers should not be, as at present, distributed to individual examiners, but that

TURNER, F. C.—*contd.*—VACHASPATI, SITI KANTHA—VICTORIA, Sister MARY—VIDYABHUSAN, RAJENDRANATH and VIDYABHUSANA, Mahamahopadhyaya Dr. SATISH CHANDRA—VREDENBURG, E. (in consultation with COTTER, G. DEP.)

there should be a board of examiners in each subject who would be responsible for the honours list. Each board would consist of six persons—preferably teachers or persons who have been teachers of the subject—two of whom would retire each year. Every paper should be examined by at least two members of the board, and cases of disagreement should be brought before the whole board. The papers of candidates whose actual class is doubtful should be considered by the whole board sitting together. In these examinations, as also in the pass examinations, far less attention should be paid to the details of the answers to questions than is paid at present and far more to the general impression of the competence of the candidate conveyed by the papers as a whole.

VACHASPATI, SITI KANTHA.

The questions should be so framed as to test the student's power of intelligent appreciation and original and sustained thinking.

The rigid system of regular attendance at lectures in colleges as the necessary qualification for students appearing at the I.A. and B.A. examinations blights the career of many intelligent students who, either on account of extreme poverty or want of accommodation in colleges, cannot be admitted into any college. These students should be permitted to sit for university examinations after they pass a test examination held by the University.

VICTORIA, Sister MARY.

It might give more conformity to the standard of English in the examination if one section of all the papers was corrected under the supervision of one examiner. Should his marks not correspond with those of the other examiners he might call in such papers as he saw fit.

Papers should always be corrected by experts in the subject. Numbers should be given to the candidates. Names should not be allowed.

VIDYABHUSAN, RAJENDRANATH, and VIDYABHUSANA, Mahamahopadhyaya Dr. SATIS CHANDRA.

Some standard English or Bengali authors should be selected, and the professor should awaken an intelligent interest in these authors by lectures and directions for study. Questions at the University examinations should be so framed as to test the students' power of intelligent appreciation and sustained thinking, *e.g.*, in essays, and not his power of accurate reproduction.

VREDENBURG, E. (in consultation with COTTER, G. DEP.)

It might be advantageous to add some *viva voce* examinations.

It does not seem advisable, in the case of candidates for honours, to restrict them to a single honours subject in the B.Sc. or B.A. examinations. Specialisation in the undergraduate years need not be carried so far as to mutually exclude, for instance, chemistry from physics or from geology. It is quite sufficient at that stage that candidates should have specialised in such large groups as natural sciences or languages

WALKER, Dr. GILBERT T.—WILLIAMS, Rev. GARFIELD—WILLIAMS, L. F. RUSHBROOK.

WALKER, Dr. GILBERT T.

When I examined at Calcutta I thought that a man could get far too large a percentage of the marks without showing that he really understood the principles of his subject. The questions were, in my view, too easy, and such value as they had was greatly diminished by the giving of alternative questions.

I would recommend the abolition of alternatives, and that the straightforward book-work question should be largely, or entirely, abolished. I would like to see it replaced by either a question on some difficulty in a general principle, that will ascertain whether it is understood, or a fairly direct example of the working of the principle, which last should, if necessary, be indicated in brackets at the end of the question.

In this way there is nothing left to chance, the method is given, and, if the student cannot reply, he does not understand his subject. The present system roughly represents English methods greatly made easy for the worst candidates, and it ought to be much stiffened up so to reject a number of the worst candidates.

Of course, the papers that I suggest, would after some years, tend to become crystallised and, if set unintelligently, would become in time almost as bad as the present ones. But the examination system should be continually developing, and so should always maintain efficiency. Here comes in the need of an efficient governing body which I have drawn attention to in my preliminary suggestions.

WILLIAMS, Rev. GARFIELD.

Examinations should be absolutely "above board". Names of examiners should be published, and the selection of examiners should be absolutely under the control of each department. No university committee and no university official should have any power to give examinerships. Examinations should be purely departmental.

The system by which "preparation leave" is given nowadays before examinations are held, thereby putting a premium on "cramming", is most pernicious and should be abolished.

There must be a University Press for the printing of examination papers. Universities might combine in this.

WILLIAMS, L. F. RUSHBROOK.

With the proper organisation of teaching through the departmental system the following improvements in examination methods should follow naturally:—

(*a*) The control of examinations by those who are employed in preparing students for them will enable the text-book to be dethroned from its high position, and encourage examiners to insist upon the cultivation of intelligence, rather than of memory.

(*b*) The examinees, whose record will be known to the examiners, will be given the opportunity of throwing the whole of their university work into the scale, instead of being judged by their performance in a single test.

(*c*) The standard of examination will be considerably higher than at present, but the test, being merely the culmination of a due process of preparation, will lose the terrors it at present possesses.

(*d*) Improved methods of preparation, and the diversion of many weaker students from university examinations by the dissociation of these examinations from Government service, will enormously reduce the percentage of failures, add to the status of successful candidates, and go far towards lifting the whole examination system from the slough into which it has sunk.

WORDSWORTH, The Hon'ble Mr. W. C.

Englishmen should be used more extensively than at present in the setting and marking of papers in English, especially in the matriculation examination.

Better efforts should be made to standardise the work of examiners examining the same papers.

All grace marks and other contrivances for helping through the incompetent should be discontinued.

Examination papers should be set on subjects, not on books.

Examination papers, before acceptance, should be scrutinised by a board of moderators.

ZACHARIAH, K.

The boards or bodies which set papers should be reconstituted. At present, for the B.A., no teacher may set a paper on the subject he lectures on; but he may correct the answer papers. It is difficult to see the principle behind this regulation. The result is that university lecturers who are often not in touch with B. A. classes set the papers to a considerable extent. In the M.A. the theory seems to be that each lecturer should set the paper on his subject. The result is the examining board is very large, about 15 or 20 or even more, and never meets once the papers are allotted. There might be the same question in two papers and there is no way of discovering or altering it. Recently most of the "special subjects" in history were divided between four examiners who, in one case, were as distant from one another as Allahabad, Dacca, Indore, and Calcutta. How a subject which has some organic unity of its own can, in this way, be quartered like a traitor, it is difficult to conceive!

I should propose that small boards of 4 to 7 members should set the papers in any subject in consultation. These boards should be composed mainly, or wholly, of teachers, and half the number should be changed every year, so that every teacher gets his chance sooner or later. Again, it will perhaps be a good thing occasionally to entrust a part, or the whole, of a subject to external examiners from other Universities.

A *vivâ voce* examination is, I believe, possible and useful in the honours examinations at least.

Rank in the class list should be done away with. The result is that students and others attach, at present, an entirely fictitious value to the first place in the first class, and so on. Perhaps the difference in aggregate marks is $\frac{5 \text{ or } 6}{5 \text{ or } 600}$ and a different body of examiners might easily have returned a different verdict. To stamp such a doubtfu superiority with the seal of the University is rather absurd. The existence of rank leads, as I know to my cost, to much unhealthy rivalry, disappointment, and suspicion of examiners. An alphabetical arrangement in the classes is altogether better. The Cambridge system of divisions in classes is a compromise I should not care to see adopted.

QUESTION 11.

(i) Do you hold that English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course ?

(ii) (*a*) If your answer to (i) is in the affirmative, do you consider that University students have, on their entrance to the University, an adequate command of English ?

(*b*) To what extent do you think that English should be used as the medium of instruction in secondary schools for those students who are being prepared for the matriculation ?

(*c*) Are you satisfied with the kind of training now given in English before entrance to the University ? If not, what improvements do you suggest ?

(*d*) Would you draw a distinction, both in school and University, between practical training in the use of the English language, and training in the study of English literature ?

(*e*) Do you think that the matriculation examination in all subjects should be conducted in English ?

(*f*) Do you think that English should be taught to all students during their University course and, if so, what kind of teaching would you advocate for those students whose general course of study may be other than linguistic ?

(iii) If your answer to (i) is in the negative (*i.e.*, if you think that English should not be used as the medium of instruction and of examination at every stage in the University course above the matriculation), what changes would you recommend, and at what stages in the University and pre-University course ?

ANSWERS.

AHMAD, KHABIRUDDIN.

(ii) (*a*) University students, generally speaking, do not have an adequate command over the English language. This is due to the present cramming system, and the want of adequate attention to colloquial English in secondary schools. The teachers and the taught prefer to speak in Bengali in and out of school and, consequently, students cannot speak with fluency, and cannot express their ideas in correct and grammatical English. This foreign language is generally taught in secondary schools by incompetent teachers whose knowledge is always meagre and insufficient. Secondary schools should, from the very beginning, try to prepare students for trade, industry, and commerce, as well as for State service. Students who show their intelligence for high literary pursuits, and whose parents are quite in a position to bear the cost of University education, should alone venture to satisfy their ambition by entering it ; others should receive practical training on modern lines.

(*b*) Taking the above point into consideration the medium of instruction in secondary schools should be vernacular for those students who cannot afford to proceed further than the matriculation examination. This examination should be made complete in itself by introducing practical training in trade, agriculture, commerce, etc. The matriculation examination should not be conducted in English in all subjects. Subjects like history, science, geography, geometry, as well as arithmetic, may be examined either in English or Bengali.

(*c*) English should be the medium of instruction for those students only who are likely to proceed to the University for their degrees, or for those who intend to join the Bar.

In most of the secondary schools the qualifications and attainments, particularly of the lower teachers are so low that they are not in a position to lay a strong foundation in the English language. Better results can be attained by offering better prospects and emoluments to teachers.

In some cases, teachers are incapable of any improvement in their power of teaching and those who are young, intelligent, and energetic do not care to improve their stock of knowledge and information by private study, as they find their future gloomy and prospects uncertain. They have to work on the same pay throughout their lives.

AHMED, Maulvi KHABIRUDDIN.

(i) I do not think that English should necessarily be the only medium of instruction and of examination at every stage above the matriculation examination. Attempts should be gradually made to replace English by the vernacular medium, as far as possible. There is, however, another side of the question. In respect of vernacular India is not a homogeneous country. Even within the territorial limits of the Calcutta University no less than five vernaculars are spoken, and some of them are not so well developed as to serve as a medium of higher education. In order to meet the difficulty arising out of the multiplicity of the vernaculars there ought to be some colleges, preferably Government colleges, teaching through the medium of English.

(ii) (*b*) For those students who are being prepared for the matriculation the medium of instruction should be English as far as English language is concerned.

(*c*) I am not satisfied with the kind of training now given in English before entrance to the University. The defect may be remedied by raising the standard and stiffening the examination.

(*d*) Practical training in the use of the English language should be the main object of school teaching, while the teaching of English literature should be carried out in colleges, but classics should be postponed till the B. A. course.

(*e*) I do not think the matriculation in all subjects should necessarily be conducted in English. Save and except English the examination may be in the vernacular.

(*f*) I do not think it necessary to teach English to all students throughout their University course. English should be studied by those students whose course of study is linguistic, but those whose course is other than linguistic should study it for the intermediate examination, and no further.

AHMED, TASLIMUDDIN, Khan Bahadur.

(i) Yes; the medium of instruction and examination must be English.

(ii) (*a*) I think they have it; the number of passed students supports this view.

(*b*) From class VII all subjects should be taught in English.

(*c*) It is satisfactory; a large number of students pass the intermediate examination, and many of them then pass the higher examinations with credit.

(*e*) Yes.

(*f*) Yes; those whose study is other than linguistic may not be required to keep 30 per cent marks. A fair command over the English language should be the aim.

AHMED, Maulvi TASSADDUQ.

(i) If my school course be the same as outlined elsewhere I would use English as the medium of instruction in the University course. As I shall explain later those who enter the University will have a sufficient knowledge of English to follow the University course through the medium of that language. Besides, our vernaculars have not yet been so scientifically developed as to allow the higher studies being conducted through the medium of any other language than English.

(ii) (*a*) No ; they have not.

(*b*) In secondary schools the medium of instruction should throughout be the vernacular of the country, English being taught as a compulsory second language. I advocate this change on the ground that the school, according to my scheme, will be the training-ground for all, and what is most needed is accuracy, precision, and facility in expression. The habit of thinking is to be cultivated in this training-ground, and this habit, as well as the accuracy and precision sought after, can only be attained by allowing boys to think in their mother tongue. The plea that the teaching of English will suffer if this proposal be accepted is based upon a very narrow view of a boy's intellectual equipment.

(*c*) No ; I am not. Since the new regulations came into force quite a number of books are recommended each year to indicate the standard of knowledge that is required of the English language. My experience is that in many schools all the books are attempted to be read in the class during the two years previous to the matriculation examination. The result is something other than what was originally aimed at. To improve the training given in English I would suggest as follows :—

(A) English should be begun not earlier than the ninth year of a boy's age, *i.e.*, when he has attained a sufficient command over his own mother tongue. It should be for the first three years taught by the direct method, laying special stress on colloquial expression in that language but, at the same time, not overlooking the claims of reading and writing. This method has, of late years, been much abused by inexperienced and careless teachers, but my experience is that, in the hands of a good teacher who takes a delight in his work, this method has produced marvellous results, as it was bound to produce.

(B) As years go on systematic conversation and composition will be resorted to more and more.

(C) Silent reading and expression of the substance in English should be practised.

(E) The reading of story-books—historical, biographical, topographical—books of adventure, etc., outside school hours should be made an important part of the school curriculum. The teacher should indicate to the boys in a few well-chosen and descriptive words the nature of the book that they would read and thus create in them a curiosity for and, at the same time, a habit of, reading. It is assumed that every school will have a well-stocked library of juvenile literature. In our country both guardians and teachers think that to read story-books is to waste time which could otherwise be profitably utilised.

(F) Higher up a thorough study of one book of selections and an abridged novel should be insisted upon.

(G) Debating societies attached to schools would help in the acquisition of a facility of expression. They would also be helpful in overcoming the bashfulness of our boys in speaking English. In fact, in many schools it has been found that if a boy spoke English his school-fellows would laugh at him, and thus a good opportunity is lost.

AHMED, Maulvi TASSADDUQ—*contd.*—AHSANULLAH, Khan Bahadur Maulvi.

(H) The editing of a school journal—bilingual—under the supervision of a responsible teacher would call forth the latent powers in students.

(I) Lastly, the teacher of English should create such an atmosphere in the class as would enable boys unconsciously to imbibe the habit of speaking English with each other.

(*d*) Yes ; I would draw this distinction both in the school and University, and for the majority of the boys I would only insist upon a practical training in the use of the language. For those only who have a special aptitude should a training in the study of English literature be prescribed.

(*e*) Except the compulsory paper on the English language all other subjects should be examined in the vernacular of the country.

(*f*) For those students whose general course of study may be other than linguistic a training in the use of the English language should suffice.

AHSANULLAH, Khan Bahadur Maulvi.

(i) English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course. In a country where teaching suffers from the domination of university examinations the displacement of English as a medium of examination will have a serious effect on the study of English.

To teach English quickly it should be made a medium of mental exchange and a vehicle of thought conveyance. Students should think in English, speak in English, write in English. The first step in the direction of reform will be to make English not only a medium of instruction, but also of examination. The course of secondary education in India is determined not by the department, but by the matriculation examination. The extraordinary fascination exercised by the University examinations thwarts every attempt to introduce any change in the educational system. I would, therefore, employ English as the medium of examination not only for colleges, but also for secondary schools.

(ii) (*a*) Students do not ordinarily acquire an adequate command of English before their entrance to the University. The teaching of English in schools suffers not a little from the tyranny of the examination. Instruction is subordinated to the end of the matriculation, and not to the end of culture.

The undue influence of the matriculation has led to the limitation of compulsory subjects in the upper forms of high schools and to the neglect of conversational tests in the lower ones.

It is paradoxical to argue that English would be better taught and learnt as a second language than as a principal medium of instruction. It is hardly correct to say that the encouragement of English has led to the impoverishment of the vernacular ; on the contrary, there is considerable ground for thinking that it is the study of English which has stimulated the growth of vernacular literature in India. Any ill-advised attempt to uproot English from its present position will have a disastrous effect not only upon the study of English, but also upon the study of the vernacular.

(*b*) The entire course of a high school is spread over twelve years. English is mainly employed as a medium of instruction in the top two classes of high schools. In classes, III and IV of such schools instruction is carried on partly in English and partly in the vernacular. In middle schools English is taught only as a second language. The teaching of English is forbidden in primary schools, though it is surreptitiously taught in the upper forms of such schools.

Pupils in secondary schools begin to learn English at about the age of eight or nine. The vernacular is not displaced as a medium at any point of school-life. Teachers use the vernacular freely even in the highest classes. The earlier English is begun the greater is the facility of expression. The best way

AHSANULLAH, Khan Bahadur Maulvi—*contd.*

to teach an Indian boy English is to take him to England. If we cannot do so the next best way would be to reproduce English conditions in the class-rooms, so far as possible. If a boy wants to write and speak the language correctly he should learn English in English. English should be handled as a living language.

English should figure as a second language in the fourth year of study in all classes of schools. It may gradually appear as a medium of instruction. In the middle stages arithmetic, history, and geography may be taught through the medium of English, but in the higher stages all the school subjects should be taught through the medium of English. No great improvement in the schoolwork can be expected unless the sphere of English atmosphere is enlarged.

The first thing to be taught in English is not the archaic language of literature, but the spoken language of daily conversation. English can be learnt more by speaking it and hearing it spoken than by any other means.

(*c*) To enable students to complete their secondary course with a more competent knowledge of English the following suggestions are offered :—

(A) A habit, as well as a necessity of speaking in English, should be created among pupils.

(B) Pupils should commence English immediately after the completion of the *pathshala* course.

(C) The lower forms should be in charge of a teacher who can teach pupils colloquial English.

(D) Lessons in history and geography in the lower forms should be conducted orally in English by a reference to maps and charts.

(E) The over loaded course in the middle forms should be lightened by the elimination of the science course, and greater attention should be paid to the creation of an English-speaking atmosphere.

(F) Boys of the upper classes should be questioned and, to a considerable extent, made to answer the question in English.

(G) The vernacular should be sparingly employed in teaching the upper classes.

(H) English should be the only medium of instruction for those who are being prepared for the matriculation.

(I) Any attempt to teach the niceties of grammar or the peculiarities of English expressions and idioms in secondary schools should be avoided. Classical languages can be learnt through grammar and translation, but to apply this method to the teaching of a living language is to invite failure.

(*d*) The general aim of teaching the English language is to enable the pupil to understand the expressed thoughts of others and to give expression of their own, both orally and in writing.

The primary aim of teaching literature is to instil into the pupil a desire to read good books not merely while they are at school, but also after the period of school-life. Literature trains the taste so that the pupil may have a valuable means of using his leisure intelligently and pleasantly. Literature also aims to put the pupil into intimate relations with high ideals and to give him some knowledge of the highest achievements of thought.

The appropriate exercise of the early age is not the critical examination of the author, but the acquisition of ideas and words by a course of copious reading and by improvement of composition. The young pupil should be supplied in schools with modern, as contrasted with archaic, matter. It is only in a later stage in college that he should think of acquiring a command of the apparatus of criticism as a means of intellectual discipline. What is wanted in an earlier stage is wide reading, rather than detailed study.

AHSANULLAH, Khan Bahadur Maulvi—*contd.*—AIYER, Sir P. S. SIVASWAMY.

(*e*) The examination in all the papers should be conducted through the medium of English. The option to answer questions on history in Bengali has taken away from a large number of boys the stimulus to the regular study of history as a subject of the school course. Boys that choose to read history in Bengali are left to themselves with the result that they miss a good opportunity of acquainting themselves with the history and traditions of their ancestors. What is worse, such choice retards greatly the progress of boys in English, a thorough knowledge of which ought to be the goal of education. If anything has contributed to the acquisition of useful knowledge it is English. If anything has helped to create a spirit of original research it is English. It trains the faculties. It widens the outlook. It cultivates the mind. It strengthens the character. It teaches the pupil his duty to himself, the community, and the State. In short, it makes an honest, capable, and healthy man of him. It deserves, therefore, to be the principal subject of instruction and the only medium of examination.

(*f*) English should be taught to all students in their University course, both in arts and in science. Indian students study in a foreign language and, consequently, their attainments are often poor. The study of English should be carried to the fourth year, in spite of specialisation at an earlier stage. A good knowledge of English is necessary both for arts and science students to undertake original work or a higher course. The vernacular may cease to be compulsory after the matriculation.

The following subjects may be included in the arts and science course :—

I.A. or I.Sc. examination.

Arts.	Science.
English and any three of the following :—	English, and any three of the following :—
(1) A vernacular language.	(1) Mathematics
(2) A classical language.	(2) Physics.
(3) Mathematics.	(3) Chemistry.
(4) History.	(4) Botany.
(5) Logic.	(5) Physiology
(6) Economics.	(6) Zoology.

B. A. or B. Sc. examination.

Arts.	Science.
English and any three of the following :—	English, and any three of the following :—
(1) A classical language	(1) Mathematics.
(2) Philosophy.	(2) Physics.
(3) Economics.	(3) Chemistry.
(4) History.	(4) Botany.
(5) Mathematics.	(5) Physiology.
(6) Logic	(6) Zoology.

N.B.—Arts students must take up philosophy or economics and science students mathematics or physics, besides English, to be entitled to distinction. A similar condition should be attached to intermediate students passing with distinction.

AIYER, Sir P. S. SIVASWAMY.

(i) I see no necessity for using English as the medium of instruction and examination at every stage above matriculation in the University course for all time to

AIYER, Sir P. S. SIVASWAMY—*contd.*

come. If suitable text-books can be brought into existence in the leading vernaculars English may cease to be the medium of instruction and become only a compulsory second language but, at present, the question seems to be not within the range of immediate practical politics.

(ii) (*a*) The majority of students who enter the University do not have an adequate command of English.

(*b*) I think the experiment should be tried by adopting the vernaculars as the medium of instruction throughout the secondary school course, even for students who are being prepared for the University. The result of relegating English to the position of a compulsory second language cannot possibly be worse than under the present system. On the other hand, the strain upon the student will be less severe, and he may be able to make better progress both in regard to the command of English and in regard to real knowledge of the other subjects of instruction.

(*c*) The system of teaching now followed is quite unsatisfactory. With regard to a foreign language like English I am a great believer in the value of the express teaching of grammar—the use of a dictionary and the employment of translation. Very few students use the dictionary in schools or colleges, and fewer still own a dictionary. I have very grave doubts whether, without the habit of using a dictionary and the help of translation, it would be possible to acquire clear and precise ideas as to the definitions of foreign words. Another defect in the present system of teaching in English is said to be due to the increase in the quantity of matter prescribed and the consequent inability of teachers and students to concentrate attention upon a few good text-books. In the perpetual conflict between examiners and examinees the increase in the quantity of matter was thought of as one of the methods of preventing cramming. Another method which has largely come into vogue in schools and in the University is to set a large number of questions by way of criticism of the author or books studied, but what has happened is that teachers and students have found means of circumventing the examiners. A number of books of criticism are recommended to be read by students and this by itself possibly may have a good effect, but more effective means of baffling the examiner are found by dictating copious notes from various books of criticism with regard to all the possible questions which may be put in regard to the author's views, his style, his treatment of the subject, and his faults and merits. This process of injection of notes of criticism either leaves no time for a study of the actual text of the author, or is supposed to dispense with the necessity for a study of the text. The aim of teaching now is not to enable students to understand what the author means, but to learn what other people have said about the author. This tendency is specially pronounced in colleges.

(*d*) I am in favour of a distinction being drawn between a practical training in the use of the English language and a training in the study of English literature. More attention may be paid to nineteenth century prose and less to the history of English language or literature and to the study of books pertaining to the earlier periods. The standard of knowledge of English required for the B. A. (pass) degree is now very much higher than that expected for the B. A. (honours) degree except in the case of those who take English language and literature as their optional subject. While laying more emphasis upon a working knowledge of the English language, as it is now written and spoken, I should be unwilling to suggest a complete discarding of works of literature which have a cultural value.

(*e*) This University has practically given up the matriculation examination, but in the corresponding school final examination English is the language in which the examinations are conducted. English should be the medium of instruction in every subject which is taught in English.

(*f*) English should certainly be taught to all students during their University career. The standard may be that prescribed for the examination in English for the B. A. (honours) student in English.

ALI, The Hon'ble Mr. ALTAF.

(i) Yes.

(ii) (*a*) Quite a gain for the purpose.
(*b*) and (*c*) The present syllabus is quite satisfactory in this respect.
(*d*) Answer already given.
(*e*) and (*f*) Yes.

ALI, Saiyad MUHSIN.

(i) Yes.

(ii) (*a*) No.
(*b*) As at present.
(*c*) No ; there should be a more extensive use of the direct method.
(*d*) No.
(*e*) Yes.

ALI, Nawab NASIRUL MAMALEK, MIRZA SHUJAAT, Khan Bahadur.

(i) The mother tongue of a nation should be the medium of acquiring knowledge. To keep English as the medium conveys an impression of more regard to the teacher than to the taught and also to get over the obstacle of having to deal with many different languages current in all the provinces in India. I think English should be treated like any other second language, but there are other reasons which are likely to overrule this consideration, as the position occupied by this language in Government and commercial offices and services. Unless they adopt a more sympathetic attitude towards the vernaculars English must remain the medium from the fifth standard and, therefore, more attention should be paid to the practical training of students in schools and less to their familiarity with literature.

ALLEN, H. J.

(i) An affirmative answer appears to me to be indicated by two facts :—

(A) The culture to be conveyed is Western.
(B) India finds a place in the British Empire.

As long as these facts remain English must continue to be the medium of higher education. The outcry for teaching in the vernaculars is a good example of the intrusion of politics into the sphere of education from which, as noticed already, India suffers. Divorced from politics I doubt if this question would ever have been raised ; even adorned with the political halo the vernacular university has failed to allure many Indians, and were there any probability of its taking shape the ranks of its supporters would, I imagine, be thinned. The world of education needs this diversity of tongues no more than the world of commerce needs a return to the feudal mint. Nor, though I am not concerned with this aspect here, can I imagine anything more calamitous to the political aspirations of the country. And India, the fine flower of whose intellect had been trained through the vernaculars, could scarcely hope to play much part in the councils of the Empire.

(ii) (*d*) and (*f*) I am in favour of all students learning some English in their University course ; but the amount should vary according as the student is taking honours

or a pass course or is going for the B. A. or the B. Sc. For the B. A. pass the emphasis should be about equally divided between English and the special subject. In the other cases the English must obviously be less. What is wanted here, I take it, is the ability to read and write English easily and correctly. In Madras we try to secure this by composition, based on books "set for non-detailed study".

In the B. A. pass, however, English appears to me analogous to the Latin or Greek of a classical training. It has not only a cultured value, but enters more largely into the mental training. There is here room for a certain amount of English literature and literary history.

ALLEN, Dr. H. N.

(i) In Bombay, certainly yes, as far as engineering is concerned, and probably for other courses also.

(ii) (*a*) In the College of Engineering, Poona, it has been found necessary to select candidates for admission who have considerably more than average proficiency in English.

(*d*) I think that practical training in the use of modern English is of the utmost importance, and should not be subordinated to the study of English literature.

(*e*) Yes.

(*f*) I fear that no time can be found for the special study of English in an engineering course. It would certainly be a good thing if some attention could be paid to the English of engineering students in connection with their engineering work in the college. Marks might even be assigned for correctness of English in the examination answer papers in engineering and other subjects.

ALUM, Sahebzadah MAHOMED SULTAN.

(i) Yes.

(ii) (*a*) Ordinarily, students have not an adequate command of English when they enter the University.

(*b*) The command of students in English is such that in the lower three classes of secondary schools it would be much better if English and vernacular were both used as the medium of instruction.

(*c*) I think that, English being a foreign language for Indians, the present system is good.

(*d*) It would be very desirable to lay stress upon the practical training in English in school, instead of literature. In colleges they get practical training already.

(*e*) The matriculation examination in English should be conducted in English, but the other subjects may be conducted in vernacular, as both are beneficial.

(*f*) I think English must be taught to all students up to the B. A. standard, otherwise they will not understand a good many things.

ANNANDALE, Dr. N.

(i) I am afraid that it is necessary at present.

(ii) (*a*) I have already referred to this question in answering question 7.

(*b*) I consider that English as a spoken language should be given a much more prominent place in secondary education, if this is possible; but any scheme

for this purpose would be useless unless the standard of teaching were greatly raised and the number of English teachers or of Indians with a thorough knowledge of vernacular English—a form of knowledge very much rarer in Bengal than in Madras—were greatly increased. As an alternative I would suggest that ordinary teaching in secondary schools should be entirely in the vernacular, and that an intermediate central college (*i.e.*, intermediate between the ordinary schools and the University) entirely devoted to the teaching of English should be founded in each district, or group of districts. In cases in which it were possible for schoolboys to obtain a real knowledge of English without being trained in a college of the kind the *viva voce* entrance examination, which I have proposed in my answer to question 8, would perhaps meet requirements. If this examination were held at the end of the long vacation it might perhaps be possible to conduct vacation classes in English at central places or even in hill stations. A "vacation bench" of qualified professors might be instituted for the purpose. Any scheme of the kind would, of course, have the effect of limiting the number of students admitted to the University, but this would be in itself beneficial.

(*d*) I have already drawn this distinction in answering previous questions.

ARCHBOLD, W. A. J.

(i) Looking at the matter from the point of view of India as a whole, and especially from the point of view of the India that is to be, I am against the use of English as a means of instruction. It is part of a very large question which I should not like to tackle here. But, as things are, most Indians who have a say in the matter seem of the other way of thinking and, hence, English will probably carry the day. What the ultimate result will be, especially as the number of Englishmen in the educational service diminishes, I leave to others to determine.

(iii) This being understood, and trying to make the best of things as people wish them to be, I would suggest that English be the medium of instruction in the honours classes for B.A. and B. Sc. and in the classes for M. A.

Association of University Women in India, Calcutta Branch.

(i) English should be the medium of instruction. It should be the medium of examination also.

(ii) (*a*) University students have not, on admission to the University, an adequate command of English.

(*b*) Putting aside the consideration as to methods of teaching which would fundamentally affect the question whether instruction were given in English or in the vernacular we arrive at two different conclusions:—

View (1) That children should be taught entirely in their vernacular, with English as a second language, begun in the kindergarten till they are twelve years of age. That, after that age, the system will be reversed and the teaching be in English, with the vernacular continued as a second language.

View (2) That children should be taught to ***think*** in their own vernacular, and that, therefore, instruction should be given in the vernacular almost entirely until the year preceding the matriculation. That, during this year, the transition to English as the medium of instruction might gradually be made.

Association of University Women in India, Calcutta Branch—*contd.*—AZIZ, Maulvi ABDUL.

(c) We are not satisfied with the kind of training now given in English.

We would suggest:—

(A) That English should be begun in the kindergarten, teaching being by the direct method.

(B) That this direct method of teaching should be insisted upon throughout the school; and that the use of English books should be introduced as early as possible (but not as text-books)

(C) That schools not using the direct method should be disqualified for sending up candidates for the matriculation

(D) That no set books should be prescribed for the matriculation, and that the examination should be conducted with a view to ascertaining the candidate's practical knowledge of the English language, and not the extent of his verbal memory.

(d) We would decidedly draw the distinction indicated between training in the use of the English language, and training in the study of English literature. We consider that both are wanted, and that they should run side by side throughout the school and college career.

A practical acquaintance with the language is obviously necessary in a country where the English language is often the only bond of union between Indian and Indian, and between Indian and English.

But acquaintance with English literature is also necessary since English literature is often the only medium through which Western ideas and Western ideals can be conveyed.

Further, for the study of various University subjects a knowledge of literary English is essential for the bare comprehension of such subject.

The alternative view is (minority):—

That practical training in the use of the English language is essential for all students.

That an acquaintance with English literature is essential for those students only who will specialise in English literature in their college course.

N.B.—It is presumed that ideas and ideals, etc., will all be served by the use of the direct method.

(e) We think that, in general, the examination should be conducted in English; but essays and certain specified answers might be accepted in the candidate's vernacular.

We advise the use of the vernacular to this limited extent so as to give opportunity for the testing of real knowledge or original thought, unfettered by the strain of expression in a foreign language.

(f) The practical training in the use of English should, in general, be continued during the University course, and might include:—

(A) Essay writing, as practised in the University of Oxford.

(B) Written summaries and digests of books read.

(C) Oral discussions of books read.

AZIZ, Maulvi ABDUL.

(i) Yes; I hold that English should be the medium of instruction in the college department.

(iii) (a) No; as it was before.

(b) Yes; I hold that English should be the medum of instruction in college subjects, and history and geography taught in Bengali in classes below class VII has greatly retarded the progress of English education in secondary schools. This vernacular system should be done away with, and the medium of instruction should be made English in classes above class IV

Mussulmans should be given the option of taking up Urdu as a vernacular from that class upwards.

This ostensible vernacular system, but practically Bengali system, has become an obstacle to Mussalmans who generally prefer to learn Urdu along with English. Their vernacular is not the book language of Bengali, but it is a mixed language consisting of more than three-fourths of Arabic, Persian, and Urdu words. Even in Eastern Bengal the common people speak a language more akin to Urdu than to the Sanskritised Bengali.

In Western Bengal almost all Mussulmans talk to their families in a language which no impartial judge can call Bengali. A Mussulman boy more easily understands *lebas* than *paridhes*, *Hawa* than "*Bayu*," *Asman* than *Akash*, *Setara or Tare* than *Nankattra*, *Adalat* than *Bicharalaya*, etc.

Thousands of such words can be quoted which are used in Eastern Bengal. As to Western Bengal the perusal of a letter or a document written by a Mussulman will speak for itself. For these reasons, Mussulmans generally prefer Urdu to Bengali along with English.

That there is a demand for Urdu is evident from the fact that even in Eastern Bengal it was found necessary almost in every middle school to appoint a Maulvi to attract Mussulman boys.

The vernacular system, by compelling all Mussulman boys to learn Bengali mostly under Hindu teachers, has so greatly changed their ideas, not to speak of their manners and customs, that an assistant inspector of schools of the Dacca division in a note to the Special Assistant Director of Public Instruction, Bengal, said:—"we found about fifty per cent. of the Mussulman boys in secondary schools believing in the transmigration of soul"

I am aware that there are some Mussulmans who advocate that Bengali should be made the medium of instruction for all—Hindus and Mussulmans. But, they are those who have very little concern with Islam and Islamic learning; their ignorance of Arabic and Persian, and their ignorance of the internal desires of the Mussulman public, coupled with their inexperience, have disabled them to see through the far-reaching consequences, economical, social, moral, and religious, of the so-called vernacular system.

If by the word vernacular is meant the spoken language of the people of Bengal the Sanskritised Bengali of the book language is certainly not the language spoken by the people of the Chittagong, Dacca, and Rajshahi divisions Each district has got a provincialism of its own, and there is no reason why Mussulmans should be forced to learn the Sanskritised Bengali when Urdu is easier and more useful to them in every way than the Bengali book language, which is not their vernacular.

Bengali, as written and in the books, is surely of great use to Hindus for enabling them to learn Sanskrit.

BAGCHI, Dr. HARIDAS.

(i) Yes; I hold that English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course. I mention below several reasons for my holding this opinion:—

In the first place original investigation in different subjects (particularly scientific subjects) demands a good working knowledge of one or more of the European languages. For years to come India has to learn science from Western scholars, whose works appear chiefly in one or other of the European languages. This consideration points to the necessity of popularising English, which is easier to learn than its sister languages, and without an adequate knowledge of which research workers would be much handicapped in their work. This object can be best attained if instruction in different subjects be given in English after the matriculation course.

BAGCHI, Dr. HARIDAS—*contd.*—BANERJEA, J. R.

Secondly, in the interests of those students who go to foreign countries (*e.g.*, Japan, America, England) at a comparatively tender age to undergo training in agriculture, commerce, or industry English should be studied more carefully than other languages. For it is no exaggeration to say that English is the only language which can be used, to convey one's thoughts all over the civilised world.

Thirdly, having regard to the political condition of the country those students who close their academic career at a premature stage to seek employment under Government or under private individuals or firms are often required to speak and write English correctly.

Finally, judged from a more practical standpoint, English should continue to be the medium of instruction. For, considering the vernaculars of the whole of India, their name is Legion. And, even confining our attention only to the provinces of Bengal, Assam, and Burma, which fall under the jurisdiction of the Calcutta University, there are a good many vernaculars. If the University were to prescribe a common vernacular the different classes of people would press the claims of their respective vernaculars, leading to some amount of confusion. It would be too much to expect that the different sections of people would come to a compromise about a common vernacular.

BANERJEA, J. R.

(i) Yes; there are not yet books of an advanced character dealing with science, philosophy, history, etc., in the vernaculars, so that at every stage above the matriculation English should be used as the medium of instruction and examination.

(ii) (*a*) No; they have not an adequate command of English on their entrance to the University.

h should be used as the medium of in truction in secondary schools those students who are being prepared for the matriculation) in connection all subjects other than a classical subject like Sanskrit or a vernacular. will make schoolboys more familiar with English and, consequently, le them to have a better command of the language. This should be done the fourth school class upwards. At the same time, whenever a transla- of the teacher's English into the vernacular is necessary to make the ideas ie teacher intelligible to his pupils it should be done. Hence, it may aid that the medium of instruction ought to be Anglo-vernacular in the ol classes.

English should be taught more by the conversational method and more attention should be paid to English grammar. Exercises in English composition should be more frequently set and thoroughly corrected. Attention should be called orally to mistakes; not only should the corrections be made in writing so that pupils may look at them whenever necessary, but also orally, to make a deep impression upon their minds.

(*d*) Certainly; for the former it is necessary to come into contact with people who can speak good English, for the latter it is necessary to study books under the guidance of good teachers whose knowledge of English literature is accurate and comprehensive.

(*e*) Not so far as classical languages like Sanskrit and Pali and the vernaculars are concerned.

(*f*) Yes; I think English should be taught to all students up to the B. A. or B. Sc. stage. For those students whose general course of study is other than linguistic I would advocate the teaching of books which would impart a simple and vigorous style—books written in a good style and dealing with the history of some science or some scientific subject in a popular way, etc. Such books

will help in the acquisition of scientific knowledge and, at the same time, enable students to know how to write correct English.

N B.—One of my colleagues very strongly dissents from my view. He thinks that the vernaculars should be used as much as possible for the purposes mentioned in this question. He thinks that this is absolutely necessary for the purpose of fostering the growth of the vernaculars and the production of books of an advanced character in the vernaculars, as well as for the purpose of making lectures more intelligible to our students. He thinks that subjects like history, logic, etc., can be well taught at all stages in the vernaculars.

BANERJEA, Dr. PRAMATHANATH.

(i) Our aim should be gradually to substitute the vernacular for English as the medium of instruction in colleges. This process of substitution, however, cannot just at present be carried very far. It should commence with those subjects in which there are suitable text-books in the vernacular. Candidates at the examinations may also be permitted to give their answers in the vernacular.

(ii) (*a*) Yes; I believe university students, except those who are below the average, have an adequate command of English.

(*b*) The vernacular should be used as the medium of instruction in secondary schools as far as practicable.

(*c*) I am not satisfied with the kind of training now given in English in schools. Improvements may be effected by the appointment of a better class of teachers and a more careful selection of text-books.

(*d*) A distinction ought to be drawn in the school, but not in the University. The greater part of the school work in regard to English should be limited to practical training in the use of the language.

(*e*) The matriculation examination should be conducted in the vernacular in all subjects except English.

(*f*) No; students ought, however, to be encouraged to take up English as an additional subject.

BANERJEA, SURENDRA NATH.

(i) Yes; English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course.

(ii) (*a*) No; but this can be certainly improved.

(*c*) No; often discredited and antiquated methods of teaching the language are followed in the school classes and the poor youths are unable to learn much of the practical methods of using the English language. In this connection I would like to refer the Commission to the very practical and excellent remarks made by His Excellency Lord Ronaldshay, as rector of the Calcutta University, on the occasion of the convocation this year.

(*e*) No.

BANERJEE, GAURANGANATH.

(i) At present, and at least for some time to come, English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course. But, I think a graduated course in the vernaculars should be adopted by the University without any further loss of time. A candidate for the intermediate and B.A. examinations five or seven years hence should be given the option of answering the questions in his own vernacular. To facilitate this the University should undertake, and, in some cases, give encouragement, to translate books prescribed by the University for the intermediate and B.A. examinations in the vernaculars

BANERJEE, GAURANGANATH—*contd.*—BANERJEE, Sir GOOROO DASS.

(ii) (*a*) and (*c*) The University students have not, on their entrance to the University, an adequate command of English. I should propose, therefore, that in the school courses of study, in addition to composition and translation, reading, writing, and dictation in English should be insisted upon in all the classes.

(*b*) English should be used generally as the medium of instruction in the first three classes of secondary schools.

(*d*) I would advocate that the practical training in the use of the English language should begin in secondary schools, but I should wish that the training in the study of English literature should be included in the University curriculum alone.

(*e*) I think that option should be given to students appearing at the matriculation examination in all subjects (except English) to answer the questions in their own vernacular as far as practicable.

(*f*) English should be taught to all students during their University course up to the degree examination; and, for those students whose general course of study may be other than linguistic, practical training in the use of the English language, especially in original composition, should be insisted upon.

BANERJEE, Sir GOOROO DASS.

(i) I do not hold that English should be the medium of instruction and of examination at every stage above the matriculation.

I think that up to the intermediate examination stage option should be given to make the student's vernacular (Bengali and also Hindi and Urdu) the medium of instruction and examination.

Primâ facie, the student's vernacular ought to be the medium of instruction and examination in every subject except English, as that would enable the student to learn his different subjects well and easily. English also should be learnt by every Indian student not only for its practical importance in his everyday concerns, but also for the rich literature it contains and the value it has towards furnishing a key to the treasures of the world's thought.

The arguments against making the student's vernacular the medium of instruction are as follows:—

(A) That that would be less helpful to his learning English.

(B) That that would involve the inconvenience of his having to learn two sets of technical terms, one in the vernacular and the other in English, for the higher stages at which English must be the medium.

(C) That there are no suitable text books in the different subjects in the vernacular.

The first argument is amply answered by the consideration that the time and energy that will be saved by reason of other subjects being learnt in the vernacular can be devoted, with advantage, to the study of English. The second argument is not of much weight and may be met by English technical terms being retained in vernacular books. And the third argument is answered by the fact that up to the intermediate standard good books are available in most of the subjects in Bengali at least.

(ii) (*a*), (*b*), and (*c*) I cannot say that University students on their entrance to the University have quite an adequate command of English. The deficiency is due to the abolition of text-books in English prose and poetry and in English grammar at the matriculation stage. The teaching of English with the help of good text-books in prose and verse and in English grammar should be resorted to.

English should not be used as the compulsory medium of instruction in secondary schools, but it should be left optional with students to use it as a medium. English technical terms should, however, be retained in use.

(*d*) I would not draw any distinction either in the University or in the school (except in the lower classes) between training in the use of the English language and training in the study of English literature. I think the best training in the use of the English language is that which can be given through the study of such portions of English literature as are of cosmopolitan interest, taught in a well-graduated scale, beginning with simple pieces in prose and verse and rising step by step to pieces of higher standard. The prose and poetical readers compiled under the supervision of Mr. J. E. D. Bethune and published by the School Book Society formed an excellent graduated series.

(*e*) I do not think that the matriculation examination should in all subjects be conducted in English. In subjects other than the English language it should be left to the option of the candidate to be examined either through the medium of his vernacular or through the medium of the English language.

(*f*) English should be taught to all students during their University course for reasons stated in my answer to (i), *supra* and they should all study both English language and English literature (portions of great standard works), but the philology of the English language should form no part of the course except for those whose general course of study is linguistic.

(iii) As my answer to (i) is in the negative, I would recommend that history, geography, and mathematics be taught in the matriculation and intermediate stages through the medium of the student's vernacular.

BANERJEE, JAYGOPAL.

(i) Yes; certainly, except in the case of non-linguistic subjects and candidates, where a little relaxation may be desirable.

(ii) (*a*) The majority of them possess sufficient knowledge to be able to follow lectures, but not enough to be able freely and correctly to express themselves in English. This is an important distinction often lost sight of by those who complain of an imperfect "command of English." There is, however, a small percentage who are decidedly below the mark and whose presence in the classes serves to lower the standard of teaching and, in the intermediate stage, even to clog progress.

(*b*) In the top three classes of secondary schools English should be made the medium of instruction except in the case of subjects like geography, history of India, elementary science, and mechanics.

(*c*) There is need and room for improvement. Too much time and attention are devoted by school teachers to grammatical technicalities and rhetorical niceties. Up-to-date and improved methods of teaching spoken languages, other than the boys' vernacular, should be used more extensively in the lower forms, and in the higher ones the boys should be trained in the habits of extensive reading of suitable and easy books which they can understand without much help, and of expressing their ideas clearly and with ease. Undue importance is now attached to translation and retranslation and no provision made for *conversation* on familiar things around them. All possibility of independent thinking is stifled by a systematic discouragement at this stage, the mischievous effect of which becomes palpable in the lack of initiative evinced by the ordinary undergraduates and their want of *appreciation* of first-hand experience in later life. It is equally desirable that one or two good text-books in prose and poetry should be taught *intensively* at this stage, with the care and minuteness given to classical languages, to create the beginning of an intelligent appreciation of literature so necessary to those who propose to offer in the University a purely literary course. Here, a beginning ought also to be made of a *comparative* estimate of points of

literary value by illustrative references to the boys' own vernacular literature which should not, as now, be left to the pandits, but be taught by the "English" teachers just as modern languages are taught in the West. This point demands special attention in any scheme pretending to bring about a healthy reform in the existing system of secondary education.

(*d*) Yes; both in the secondary and "intermediate" (*i.e.*, college) stages. I have practically indicated my views above.

(*e*) Yes; except in history.

(*f*) Yes; but a non-linguistic course of general literature *sufficiently extensive* and broad-based to be representative of different phases of *thought movement* and *culture history*, in addition to the study of essays and dissertations on science and scientific subjects *possessing also a literary value* should be particularly insisted upon for students who do not aim at a literary career. These students should be freed from the veritable infliction of reading any literature prior to the eighteenth century except what relates to the history of science and scientific progress and a course of poetry requiring high æsthetic appreciation which presupposes fine and delicate sensibilities to the touch of the humorous, the beautiful, and the sublime. There is, at present, a deplorable amount of sheer "wastage" due to a compulsory course of study imposed upon minds naturally unfit for assimilating what the purely humanisti studies principally aim at offering. Due provision should, however, be made for counteracting the well-known evil effects of a narrow specialised course of technical and technological study taken up too early before a good grounding has been given to non-linguistic students of a broad basis of general culture on which their expert knowledge should be built.

BANERJEE, Rai KUMUDINI KANTA, Bahadur.

(i) English should not be used as the medium of instruction and of examination at every stage above the matriculation in the University course. If the medium be a foreign tongue students strive more for meanings of words, than for meanings of things.

(iii) (A) The entire secondary education should be through the medium of the vernacular.

(B) English should be taught as a compulsory second language more with a view to imparting training in the use of the English language, than in the study of English literature in schools.

(C) The matriculation examination should be conducted in the vernacular in all subjects except English.

(D) The medium of instruction in the intermediate examination should be the vernacular.

(E) English should be taught as a compulsory second language in the intermediate course.

(F) The vernacular should be an optional medium both in the B. A. and B. Sc. and M. A. and M. Sc. examinations, the ultimate end being the imparting of all education up to the highest university standard through the vernacular.

BANERJEE, M. N.

(i) As a rule; but exception may be made in regard to certain subjects. For instance, history may be taught in the vernacular. Written examinations must be in English, option being given in the oral examinations to answer in the vernacular.

(ii) (*a*) Generally not.

(*b*) Arithmetic, history, and geography may be taught in the vernacular.

(c) No; I think they do not learn much in the nine or ten years they spend in schools before their matriculation and waste a good deal of their time in reading one book after another on the same subject. An elementary knowledge of physics, chemistry, and hygiene should be included in the course of study. To ensure a better knowledge of English, text-books in English should be prescribed, and teachers should be specially trained by Englishmen or Indians who have had their education from Englishmen. Otherwise, they cannot learn conversational English or proper accent.

(*d*) Yes.

(*e*) Not in the subjects which are taught in the vernacular.

(*f*) Yes; practical training in the use of the English language for a course of study other than linguistic. It is often found that students, though acquainted with English literature, are unable to follow the lecturers for want of a knowledge of ordinary or conversational English. On the other hand, students not having much knowledge of English literature, but well up in ordinary English, follow the lectures more easily and with more benefit to themselves.

BANERJEE, MURALY DHAR.

(i) No.

(iii) No knowledge can take root and grow in the mind of a nation unless it is communicated through the mother tongue. The vernacular literature of a country can never grow, especially in the higher branches, so long as the higher education is given through a foreign tongue. English, therefore, should not be the medium of instruction and of examination at any stage. At the option of the student the vernacular should be substituted for English in all stages for both these purposes. English, however, should be taught as a compulsory second language up to the intermediate stage, and English text-books should be used freely at all stages in all the subjects until at least suitable text-books are available in the vernacular.

(A) Changes recommended in pre-University courses :—

English should be taught as a second language both through conversation and books and, preferably, the conversational part at least, should be taught by an Englishman or English lady. A six or seven years' course in the pre-University period is sufficient for gaining a thorough knowledge of English. It need not be introduced before a boy or girl has thoroughly mastered the vernacular. English should at first be taught orally by the direct method and, after one or two years of such teaching, English reading books also may be used along with teaching through conversation. If taught in this method English would be learnt quickly, and a greater mastery over it would be gained, than under the present system. A conversation test of English should form part of every examination. English should not be the medium of instruction and examination in subjects other than English.

(B) Changes recommended in the University courses :—

English should be taught as a compulsory second language up to the intermediate stage. As a medium of instruction and examination the use of the vernacular should be made optional in all subjects other than English. Text-books in English should be freely used along with text-books in the vernacular when these are available. From the graduate stage English should cease to be a compulsory subject.

BANERJEE, RAVANESWAR.

(i) English should not be the medium of instruction and examination at every stage in the University course. It hinders progress and creates an atmosphere of artificiality and constraint in the class-room. If the medium be vernacular.

BANERJEE, RAVANESWAR—*contd.*—BANERJEE, SASI SEKHAR.

the student would learn more in less time. At the same time, the vernaculars of the country must be encouraged and improved.

(iii) It must be borne in mind that English, which has already become the *lingua franca* of the whole of India, cannot be done away with under present conditions. It is now the only medium of speech that helps the educated Indian throughout the length and breadth of his country, and even beyond. The vernacular medium, again, will tell badly on the acquisition of knowledge in English by our boys. The question now arises, how to reconcile or satisfy both of these kinds of needs, apparently so antagonistic. A solution of the problem may be found in the following changes :—

(A) In the pre-university stage :—

(1) English should be taught in the lowest classes by the direct method. Attempts should be made to ensure correct pronunciation at the very beginning. Habit of conversation in English should be early inculcated. Well-trained graduates should be engaged to teach English in these classes. If practicable European lady teachers might profitably be employed for this purpose. Throughout the secondary school course more attention should be paid to conversation, translation, and composition, especially letter writing.

(2) Text books on all the subjects for the matriculation examination, except English and history, should be in the vernacular. Books on history should be written in simple English.

(B) In the university stage :—

(1) Except in English, text-books on all other subjects may be in the vernacular. Scientific or technical terms may be retained where necessary.

(2) English should be taken as a general course for the intermediate examination. Every intermediate student should go through this, but, in the examination, this subject may be treated as optional, the marks secured by a candidate not being added to the aggregate when falling below a fixed minimum. Failure in English need not affect his passing the examination. The inclusion of English as a compulsory subject debars a considerable number of meritorious boys from higher studies. I know a student who, while a very good arts student, used to stand first in the term examinations in all subjects but English, in which he got poor marks. The boy appeared at the University examination four times and failed simply because of his poor English. But for this he would have turned out a brilliant scholar. Such cases are not very rare.

(c) Alongside this general course there should be an optional English course of a more difficult nature, alternative with one of the other subjects, for those who desire to make a study of the literature.

(d) The medium of instruction and examination for the higher degrees should be in English, but the vernacular should be freely used in teaching when necessary. Examinees may be given the option of answering examination papers on scientific subjects in the vernacular.

BANERJEE, SASI SEKHAR.

(i) Yes; that is my opinion as regards instruction. Under the existing state of things, so far as instruction is concerned, I do not see how the vernacular can be a useful substitute for English seeing that there are so many vernaculars in Bengal. It must not, however, be understood that there is no vernacular in this country which can be used as a medium. The Bengali language, by virtue of the richness and variety of its vocabulary, the structure of its language,

and its first-rate literature is, undoubtedly, a fit medium of instruction and examination. But its adoption, as such, will lead to the opening of denominational colleges as the domiciled nationalities have not all adopted Bengali as their spoken language. So long, then, as we have not adopted a *lingua franca* for all Bengal English should remain the medium of instruction. Moreover, the adoption of a vernacular for that purpose may be undesirable from another point of view. To increase the efficiency of the Calcutta University, and to add to its attractiveness and importance, first-rate men in special branches of learning should be imported from foreign universities, but the full benefit of their instruction will not be derived if it is to be given through the medium of the vernacular. But, as regards examination, it may be feasible to adopt the vernacular as a medium in some branches of study, such as history and science, in the intermediate stage.

(ii) (*a*) Not in a majority of cases; I have already said that the main object of students is to pass examinations and for that they generally adopt the easiest way—cram. The exercise of memory is easier than that of the intellectual faculty and the primary object of the University is necessarily kept in the background. Were the requirements of the University strictly adhered to the result would have been quite different. For this state of things the method of teaching is responsible. Teachers, especially of the lower forms, in many cases are untrained. They do not take the trouble to create an intelligent interest in the mind of the young learners or arouse their curiosity, but use the stereotyped method of appealing more to the memory than to the intelligence. Unless there is an improvement in the method of teaching English the knowledge of students in that subject must remain defective.

(*b*) The Calcutta University has given some latitude to the students of secondary schools by allowing them the option of answering questions on history in their own vernacular. This, as well as other subjects, except English, may be taught through the same medium so that students may concentrate their attention on the subject matter of the book without getting it up with the help of memory.

(*c*) I have already expressed my views in the aforesaid paragraphs. I wish only to add here that instruction should be imparted so as to appeal to the ear as also to the eye. For this purpose, occasional excursions into the different parts of the neighbourhood may be necessary. They will be beneficial not only to the mind, but also to the body. Training in English must not be mechanical. Teachers must not do everything for the boys, but lead them so as to develope their minds and intelligence and teach them the importance of self-help. What the boys require is gentle guidance and help when they need it. They should be taught to speak in simple English, and conversation classes may be held for this purpose.

(*d*) Yes; at school greater attention should be paid to the practical training in the use of the English language, but in university training attention should be paid to both the alternatives. With regard to the first I should suggest the opening of conversation classes at schools. In the University a more advanced method may be adopted. There, the students may be trained in the art of elocution. For this, classes may be held, and graduated lessons in the art of prepared and *extempore* speeches may be provided.

(*e*) Not necessarily; I have already expressed my views in (*b*).

(*f*) No; I do not advocate any alteration of the present curriculum. Students of science begin to specialise at the degree stage. It is not necessary to overburden them with the study of English literature. At this stage they acquire the power of understanding and expressing their ideas in simple English. However, it is desirable that provision should exist for the study of the English language.

BANERJEE, SUDHANSUKUMAR.

(i) English should, in general, be used as the medium of instruction and of examination at every stage above the matriculation in the University course till the vernacular of the province is in a position to replace it. Every attempt should be made to encourage the scientific study of the vernacular of the presidency so as to reach this goal at an early a date as possible.

(ii) (*a*) Yes.

(*b*) English should be used as the medium of instruction in the highest two classes of secondary schools for those students who are preparing for the matriculation.

(*c*) Instead of recommending a few standard text-books (as in the existing system) the University should prescribe a select course of study, both in prose and poetry, for the matriculation (as was the practice in the old days before the new regulation was introduced in 1909). There should be one paper on this select course, one paper on grammar and composition, and a third paper on translation from the vernacular, which should also contain a few questions on unseen passages.

(*d*) In school no distinction should be drawn between practical training in the uses of the English language and training in the study of English literature. In the University, also, no such distinction should be drawn for those who take up an arts course, but for those who take up the science course a distinction may be drawn so as to lay more stress on the practical training in the use of the English language and the study of English for these students should be so arranged as to include the study of scientific essays

(*e*) Yes.

(*f*) Yes; the teaching should be of the kind as in the existing system with the following modifications:—

(A) For the intermediate examination in science, the study of scientific essays should be prescribed along with the study of English literature and language.

(B) For the B. Sc. examination, there should be only one paper on English in which the students should be asked to write an essay on some scientific subjects.

BANERJI, MANMATHANATH.

(i) The reply is in the affirmative.

(ii) (*a*) The reply is in the negative in the case of the majority of students.

(*b*) English should be the main medium of instruction in English literature and language in secondary schools for students preparing for the matriculation. But teachers should be free to explain things in vernacular too.

(*c*) I am in favour of reverting to conditions of the old entrance examination. There should be a compulsory text in the matriculation in which questions arising thereon on grammar and idiom should be asked. The second paper should contain questions on grammar and composition. The third paper in English should contain questions for translation from the vernacular, essay, unseen passages for explanation, etc. This would help to raise the standard of the knowledge of the English language.

(*d*) I think there is a distinction between the practical training in the use of the English language and the training in the study of English literature, and, from our point of view, the former is more important. Effort should, therefore, be made to improve it. There are men who are proficient in literature, but have a very indifferent command over the language

BANERJI, MANMATHANATH—*contd.*—BANERJI, The Hon'ble Justice Sir PRAMADA CHARAN.

(*e*) The reply is in the affirmative, the medium should remain as now—English. Though it might be easy for students to understand things explained in the vernacular they are unable, for want of practice, to express their ideas in writing it. Thus, though there is a provision for answering questions on history in the matriculation examination we know students generally do not avail themselves of this opportunity. The compulsory paper on the vernacular in the matriculation, I. A., I. Sc., and B.A. examinations cannot be said to have raised the standard of culture to the desired level.

There is, moreover, at present no standard of style in Bengali. The literature is passing through a period of transition. The classical style set up by pandits, which was supplanted by Bankim's 'Modern Bengali' has probably disappeared for good. Bankim's style, which cut midway between local provincialism and Anglicised literature on the one hand, and the classical style on the other, is in danger on account of the recent authors having refused to pay any regard to rules of grammar and syntax. The colloquial holds the day and the literature is fast degenerating into spoken *Prakrit* at the hands of the disciples of Sir Rabindra Nath Tagore. In spite of volume and richness of thought the literary style is unsettled, and there are no suitable text-books in most of the subjects at present. As the literature is giving place to various provincial spoken dialects the prospect of unity through literature is not much at the present moment. Then, again, the vernacular literature could only unite a province at best, and there are more than a dozen vernaculars in the country, to speak nothing of sectarianism due to religions in the same vernacular. The creation of the vernacular as the medium of examination would lead to much bickering among the writers of Bengali. Moreover, if English is delegated to the position of a second language the student's knowledge of it will suffer as in the case of other languages which have been given a similar position. Everybody knows that a B.A. does not attain to the same standard in Sanskrit as he does in English though he might be studying the two subjects all along.

English, on the other hand, is more read and cultured at the present day than any other language in the country, and hopes of unity in India lie more through the English language than through the vernaculars. Thus, I am not in favour of disturbing the present state of things as regards the medium of examination in the University. But, as regards classical languages, more attention is to be paid to the grammar of the language itself than to translation into, and from, it.

(*f*) I am not in favour of teaching English as a separate subject for all students during the University course; but, if such is done, science students may be given a training only in English. I do not think English is necessary as a separate subject for students whose general course of study is other than linguistic.

BANERJI, The Hon'ble Justice Sir PRAMADA CHARAN.

(i) It is very desirable, and indeed essential, that English should be used as the medium of instruction and examination at every stage above the matriculation. Under present circumstances it is absolutely necessary that educated persons in this country should possess a thorough and accurate knowledge of English for all purposes, and this knowledge can only be attained by beginning, to learn English at an early stage in education, and continuing to learn it at every subsequent stage. In order to learn a foreign language properly one must begin very early. It is common knowledge in this country that those who have begun to learn English late in life have never succeeded in learning it properly. It is, therefore, essential that a beginning should be made in

BANERJI, The Hon'ble Justice Sir PRAMADA CHARAN—*contd.*—BANERJI, SURENDRA CHANDRA.

early years. Moreover, in the present state of the vernaculars, it is impossible to teach modern western science, modern western philosophy, modern western history and economics otherwise than through the medium of English. If English be not the medium of instruction higher education would be almost out of the question. Apart, therefore, from the fact that since the days of Macaulay it has been the decided policy of Government to impart English education to the people of this country (and no valid reasons exist for departing from that policy) there are many practical difficulties in the way of teaching the higher subjects of learning through any other medium than English. The vernaculars do not at present contain any treatises in higher modern science, philosophy, history, and technology, and there are no means of imparting instruction in those subjects without resorting to English. It would, therefore, be a mistake to dispense with English in any branch of instruction.

(ii) (*a*) The great majority of students who enter the universities acquire a sufficient knowledge of English to be able to understand and appreciate the teaching they receive in the colleges, but it must be admitted that, in the case of a great many of them, what they learn is not enough. The reason for this seems to me to be the inefficient teaching of English in secondary schools, and it is necessary that this should be improved. There should not only be training in English literature, but the correct use of the English language should also be taught practically. I fear a great many books are prescribed in English for the matriculation examination in consequence of which there is necessarily a good deal of cramming.

(*b*) The matriculation examination should be conducted in English in all subjects except Indian classical languages and Indian vernaculars. I also think that in their University course all students should be taught English but, in the case of those who take up the science course, all that is required is a good general knowledge of English, and this may be attained by pursuing a course of studies similar to that prescribed by the University of Allahabad for the B.Sc. examination.

BANERJI, SURENDRA CHANDRA.

(i) English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course, excepting the vernacular subjects.

(ii) (*a*) University students have, on their entrance to the University, as much command of English as is necessary to follow the courses which are conducted in English. But there is a certain amount of deficiency in the power of expressing their thoughts in English.

(*b*) In secondary schools the medium of teaching need not rigidly be English; but the boys must be taught to express in English what they learn from the text-books (literature and grammar), and English should exclusively be the medium in this part of the English course, *i.e.*, composition.

(*c*) In secondary schools boys should be taught to express their thoughts in English from the fourth class, and not before that. At present, this mode of teaching English is commenced too prematurely in many schools; in some it is as early as in the seventh class, and the result is that boys who are future University students do not have a good grounding in the subject. No improvement in University teaching could be thought of unless the teaching in secondary schools is satisfactory and, to secure this, it is highly desirable that the University should control the teaching in secondary schools. It is a common practice in most of these schools to teach too many subjects from the earliest classes. The result is that imperfect, and in many cases wrong, ideas are impressed upon the soft and plastic young

minds. These impressions are conveyed through text-books on literature and science, which are far from being satisfactory for the purpose for which they are recommended. For example, the Bengali science text-book for the seventh class of the Hare School contains almost in its entirety references to botany in an undesirably condensed shape. Too much of condensation entails a great deal of difficulty in understanding the subject and, if it is not carefully done, the condensed statement becomes unintelligible and, in some cases, absurd—as is exactly the case in some parts of the science text-book referred to. I see no desperate hurry in introducing such books so early and spoiling the boys. The question of controlling education in secondary schools thus resolves itself into controlling text-books. The books on various subjects must be carefully prepared by such persons as have a special knowledge of the subject or subjects.

(*d*) In colleges also a difference might be drawn between practical training in the use of the English language and training in the study of English literature.

(*e*) The matriculation examination in all subjects, excepting the vernacular subjects, may be conducted in English.

(*f*) Science students should be taught to express their thoughts in English.

BANERJI, UMACHARAN.

(i) In the teaching of a particular language that language itself should be the medium of instruction. For purposes of explanation and translation help may be taken by the use of vernacular or any other language. Thus, in the teaching of Sanskrit, the lecture should be given mainly in Sanskrit, though, for purposes of elucidation, the lecturer may use Bengali or Hindi or English occasionally. Similarly, English should be the medium of instruction in the teaching of English, and may be occasionally used in the teaching of other European languages.

(ii) (*b*) The vernacular should be the medium of instruction in all the school classes except that English and mathematics should be taught in the first three forms through the medium of English.

(*c*) The teaching of English should be improved. Boys have to acquire the mastery of a foreign tongue, and have to get up prescribed books full of foreign ideas. Cram is the inevitable consequence. Modern and up-to-date books written in plain English should replace the existing books. The course of poetry should be diminished; the course of prose should be increased. Some books might be prescribed. As regards other books the standard of efficiency demanded of the examinees might be indicated.

(*d*) Yes; in the Matriculation and I. A. or I. Sc. stages, but not in the higher examinations.

(*e*) No; the examination of English and mathematics only in English, and of the other subjects in the candidate's own vernacular.

(*f*) English should be taught to all students up to the B.A. or B. Sc. standard.

The course in English should be the same for the I.A. and I.Sc.

The course in English should be different for the B.A. and B.Sc.

No drama or poetry for the B. Sc. course.

"The objects in the teaching of English," as pointed out tersely and concisely by Mr. Ramsay Muir, the eminent Professor of History at the University of Manchester, "should be to enable students to read modern prose easily, to speak and write it correctly, and to understand it when used by those whose mother tongue is English."

The ideal set forth here is admirable, and appears to be quite sufficient so far as the modest requirements of university students go. But, under the existing system, these conditions are not properly realised.

BARDALOI, N. C.

(i) Yes.

(ii) (*a*) They ought to have; otherwise, they should not pass the matriculation examination.

(*b*) To the extent of writing English correctly and understanding English conversation correctly.

(*c*) No; I would suggest that boys should be taught to speak in English, and they ought to be examined in that.

(*d*) Training in the study of English literature should begin when a boy takes up the B.A. course; otherwise, training in the use of the English language should be given.

(*e*) Yes.

(*f*) They may be taught, even in the vernacular if necessary, but English should be taught for their benefit in life

BARROW, J. R.

(i) If the teaching of English given in schools were reasonably good I see no clear reason why English should not be used as the medium of instruction in colleges, especially as it is there that for the first time most students come into contact with Englishmen and hear the language spoken by those whose mother tongue it is.

(ii) (*a*) Most certainly not; nor do the majority of them acquire it in the course of their University training. The papers of M.A. candidates show that quite a large proportion even of those who have spent six years at colleges still express themselves with great difficulty in English, and often commit gross grammatical blunders.

(*b*) I do not think it is possible to give a definite answer to this question. The experience necessary to decide it is lacking; but a few years' experience of the use of more rational methods would show at what stage boys of normal capacity could acquire ease and correctness in the use of the language. If it were found that this stage was generally reached some time before boys were ready for college perhaps a mixed system of instruction, partly through English, partly through the vernacular, might then be introduced. But great caution should be observed about this; and I am inclined to think it would be safer, and more convenient, to make the change at the matriculation stage.

(*c*) Whatever conclusion might be come to as regards this detail the great point to be insisted on, it seems to me, is that the present system, by which all instruction after the elementary stage is given through the medium of an alien tongue, has failed hopelessly. If such a system has succeeded elsewhere then that only proves that the system is one which entirely depends for its success on the conditions under which it is worked and the skill of those who work it, and that here the necessary conditions and skill are lacking. The experiment is in itself an extremely daring one, since at the best it means that boys are having the foundations of their knowledge of other subjects laid insecurely; while, at the worst, as in Bengal, not only are the foundations imperfect, but the whole superstructure is rickety. This surely would be an unconscionable price to pay even if at the end of the school course all students had at least learnt English really well. But, if we find, as we do, that the system to which so much is sacrificed does not even teach them English it seems to me ruinous to stick to it.

The best way to learn a foreign language is the way which corresponds most nearly to that by which a child learns its mother tongue. And the essential features of this natural method are, I would suggest, these:—

(A) During the "babbling" stage a child for many months exercises its vocal organs in the production of the necessary sounds.

BARROW, J. R.—*contd.*

(B) It gradually picks up the sounds and meanings of words which it hears scores and hundreds of times repeated.

(C) In the same way, through constant hearing and repetition, it gradually picks up phrases, and forms new phrases on the analogy of those which it has thus acquired.

(D) The learning of words and idioms by this process of constant hearing and repetition teaches it to discriminate between "synonymous" expressions.

(E) A child reads nothing, or at any rate nothing, but the simplest modern books, until after it has acquired a firm grasp of modern colloquial speech.

It will be admitted that a schoolmaster faced with the task of teaching a class of boys a foreign language labours under grave difficulties. A child learning its mother tongue has numerous teachers—it is picking up something from every one round it. Moreover, it is learning throughout the whole of its waking hours. A schoolmaster, on the other hand, has many pupils; and the time at his disposal is strictly limited.

I believe, however, that we could adopt far more closely than we do the essential features of the natural method. I should like to touch on the five points I have enumerated above.

(A) I doubt whether much can be done to improve pronunciation and intonation (save in a few details, *e.g.*, the common confusion of the sounds of J and Z). But it is easy to exaggerate the importance of this matter. Practically, no one ever learns to speak a foreign language like a native. Moreover, every branch of the British Empire has its own peculiarities of speech (to say nothing of the United States). There are considerable variations in the British Isles not only between the local dialects, but in the speech of educated men. The north of England differs in some respects from the south, and Scotland and Ireland differ from it still more widely. It does not matter much if English-speaking Bengalis have, as a rule, certain peculiarities of intonation. If their vocabulary is sufficiently wide they can easily learn to understand English spoken with a different intonation.

(B) A child obtains absolute possession for the rest of its life of a wide vocabulary by hearing words uttered over and over again. How is a Bengali boy learning English supposed to acquire *his* vocabulary? He is given "instruction through the medium of English," that is, he hears for a limited time daily a teacher with not much command of the language uttering stiff, stereotyped, and often inaccurate, phrases on subjects remote from his ordinary range of interests. He is also given a reading book. There are five reading books published by Longmans, each of which is supposed to last a boy a year. They contain 687 small pages in all. The reading of some 137 small pages on an average every year, supplemented by the instruction through the medium of English to which I have referred, is supposed to take the place of that process of day-long absorption by hearing and repetition through which a child learns its mother-tongue. Thus, the Bengali boy in the course of five years' reading and study has met with only a small stock of words of which even the commonest can have recurred but seldom. It is not surprising if at the end of this process his vocabulary is utterly inadequate and it needs an effort to recall even the few words that compose it; while, his total experience of the use of English being so limited, he necessarily lacks that power of distinguishing between common, less common, and rare words which is so essential for the appreciation of shades of meaning. The very first thing to be done to improve the teaching of English in schools is to increase very largely the amount, not the difficulty, of the English read.

(C) Much of what has been said with regard to words applies also to the com-

BARROW, J. R.—*contd.*

common phrases with anything like sufficient frequency. Instead, the whole process of learning is inverted by the introduction of grammar. Although a very few simple grammar rules may be of use to a beginner; the scientific, study of the grammar of a language is a subject not for the beginner but for the expert. The grammars which are prescribed for children with hardly any knowledge of English are full of preposterously long and difficult terms of which it is hardly possible for the pupils without a great effort to discover even the meaning. Yet, they are expected to assimilate so perfectly the rules containing these terms as to be able to apply them at sight in the course of their reading and use them as guides to correctness in composition. Thus, we find exactly what we might expect. After schoolboys, and even college students, have spent many years over English they know by heart a number of rules, but they constantly fall into the most elementary grammatical blunders.

(D) It is only constant practice in the use of a language which can give a learner an insight into the distinctions between so-called synonyms. "Synonymous" expressions always differ, often very subtly. The causes of the differences between them are often not easy to explain, but the differences generally spring from the comparative commonness or rarity of the expressions in question, or their literary or colloquial character, or the flavour of age or modernity, which they carry with them. I have pointed out that a Bengali boy during the course of his school career has no chance of hearing words used with anything like sufficient frequency. Thus, he is unable to tell whether the words that he knows are common or rare. Further confusion is added on his introduction to literature which follows his entry into a college. He still reads far too small a quantity of English, but his reading is now much more widely removed than it was at school from the English of every day. Most of it consists of poetry, old and new, of archaic prose, and of modern prose, so elaborate and individual that it is often as different as poetry from colloquial speech. I have not space to elaborate this point with illustrations. I will merely remark that by thus introducing boys to literature before they have acquired a strong and easy grasp of modern English, by thus pressing on their attention the obsolete or the unusual, we cause inevitable confusion. Their stock of words and phrases becomes a jumble of old and new, common and rare, poetical and prosaic. And it is precisely this lack of discrimination in the use of "synonymous" expressions that is the chief feature of Indian English which has been so often caricatured.

(E) I have thus tried to show that the premature introduction of the learner to literature must cause grave confusion. I may add a further point, that complete familiarity with a language is essential to the appreciation of literature, and to set boys to read literature before they have acquired that familiarity is utter waste of time. Literature depends, for its appeal on choice of words, on the creation of phrases, and on rhythm. Again; I have not space to illustrate, but I would contend that the majority of boys come to college without the slightest equipment for the appreciation of the literature, largely poetical, which they are then set to read. One example of the topsy-turviness which seems to me to mark our method of teaching English I will give. Candidates for the intermediate examination are required to take a paper with the imposing title, essay, prosody, and rhetoric. I have more than once tried the experiment of testing how far students who have passed this examination have any idea of English rhythm. A simple method is to give a few lines of blank verse, with no signs to mark the line endings, and ask them to rewrite the lines as blank verse. I have always found these

experiments demonstrate an utter lack of feeling for the blank-verse line. On the last occasion on which I tried it with a third-year class, not a single member of the class, which was reading a book of *Paradise Lost* at the time, was able to reproduce six or seven lines of Milton correctly, and they all admitted that to their ear the movement of Milton's verse was indistinguishable from the movement of prose; yet every one of these students had passed the examination of which the paper on prosody, to which I have referred, forms part.

(*d*) As I have explained under (*c*) I hold that practical training in the use of modern English must precede the study of English literature. In my view, it is the function of the schools to give to every pupil a good knowledge of modern English. It is the function of the colleges to add, in the case of students with literary tastes, some knowledge and appreciation of English literature.

(*e*) It will appear from what I have already said that I think great caution should be observed as regards the use of English as a medium for instruction and examination. If experience should show that with better methods boys acquired a really good knowledge of English before they left school there would be no great objection to the use of English in the conduct of the matriculation test, but on the other hand, I see no particular object in so using it.

(*f*) If the standard of attainment in various subjects demanded from students entering college were much higher than it is now, as I desire to see it, there would, presumably, be more specialisation in colleges, and it would be too much to expect students whose tastes lay in other directions to devote time to the study of English literature. Assuming that all students after their school course could read and write and speak and understand modern English with ease and fluency all that would be necessary for college students with no special taste for languages would be to ensure that they did not forget the English they had learnt. I think there would be very little danger of their forgetting it, and I should be inclined to trust to the practice in the use of the language which their lectures, their conversations with their friends, and their reading of papers and of modern English books would give them. I should like to emphasise here what I think very important, that every school and every college should be well provided with a supply of *light* English reading. The tendency to force "standard books" down the throats of immature students is, quite apart from the difficulties of language involved, responsible for much of the intellectual sterilisation which everyone deplores.

BASU, NALINIMOHAN.

(i) English should be used as the medium of instruction at every stage above the matriculation examination in the University course until, and unless, the vernacular becomes the recognised language of the law courts and the various departments of Government.

(ii) (*a*) Yes.

(*b*) English should, as far as practicable, be used as the medium of instruction for those students who are being prepared for the matriculation.

(*c*) Although considerable importance should be attached to a student's capacity for original composition a course of study in English should be prescribed for examination. This would ensure a certain amount of careful study of English literature which is, at present, altogether neglected by many matriculation students.

BASU, NALINIMOHAN—*contd.*—BASU, P.

(*d*) A distinction might be drawn in school between practical training in the use of the English language and training in the study of English literature, but the former involves a fair training in the study of English literature.

(*f*) I do not think that English need necessarily be taught to students whose general course of study is other than linguistic. I think the present system should be maintained as far as practicable.

BASU, P.

(i) At present, yes ; but an attempt should be made to introduce gradually the greater use of the vernacular.

(ii) (*a*) My knowledge of the students of the lower classes of the University is not very intimate. But I should think that their knowledge of English is sufficient for their study of the higher course. In Bengal English is not taught in schools by the direct method and so the power of expression by students may not be satisfactory, but their grammar and syntax are not faulty to that extent. I happen to possess some experience about the Punjab University where students are taught English by the direct method. In examining papers it struck me that the English composition of the students of the matriculation examination was practically the same as that of the students passing out with the degree. In Bengal students do most avowedly improve their power to use the English language as the medium of expression as they continue in the University. It depends as much upon professors who do not always make any distinction between the methods of teaching in the intermediate classes and in the higher ones. A good portion of the difficulties of students on their entrance into the University arises from this misunderstanding on the part of the professor ; and it not infrequently happens that the less clever or the less fortunate students lag behind and evince little interest in the subjects of their study merely because the teacher failed to initiate them by suiting, at the beginning of the session, his methods to the capacity of students who come from an entirely different environment. Such difference in environment is bound to exist between college and school life, and it must be tolerated for the beneficial growth of the boy through a less Europeanised method of school life. Such difference, moreover, exists everywhere and, as such, teachers ought to recognise it,

(*b*) In the lower classes the vernacular should always be the only medium of instruction. When the student has grasped the fundamental rules of the vernacular, and has succeeded in expressing his ideas, then English should be introduced as a compulsory second language. Up to the matriculation this ought to be the case. But in the higher two classes the University should prescribe text-books both in English and in the vernacular.

(*c*) The standard of practical knowledge in grammar and composition requires to be raised a little. This should be done not by insisting upon a study of those subjects in the abstract, but by limiting the range of study of the English course, which seems to be too long at present. and insisting upon the intensive study of one or two books as would furnish models of composition and supply practical illustrations of the grammatical rules and their more numerous exceptions. An abstract study of these is always very uninteresting and, for the matter of that, not fruitful in the long run.

(*d*) The University would do well to recognise this distinction, which already tends to exist in fact. This is only natural. All students who do not specialise in English literature know the use of the language, but most of them do not know much of the literature. The third paper in English in the I.A., I.Sc., and B.A. examinations attempts to test the candidate's capacity to use the language without much bearing on their knowledge of the literature. This paper may be developed into one subject and substituted for the course of

BASU, P.—*contd.*—BASU, Rai P. K., Bahadur.

literature, which may be made into an optional subject for those who want to study literature. But, even in that case, an insight into the literature ought to be given to students. In schools the use of the language should be predominant over the study of literature, but in colleges some literature should accompany the training in the use of the language.

(*e*) Except in the examination of English itself no other subject should be examined in English. But if, in addition, boys are compelled to express themselves in a language which, at their age, they can only imperfectly learn, a stupendous waste of energy is inevitable in the attempt to get the right expression. The result is dissipation of energy; and what should have been utilised in assimilating ideas is spent in picking up the form, the exact science of which it is impossible for any foreigner to learn at that age. So, students oftentimes have to cram up passages merely to be certain of a good expression in English at the examination. Another evil, due to this attempt of precociously engrafting a foreign language upon the young mind, is that the study of the basic principles of the vernacular language is neglected in the vain effort to pick up those of English. But, in this, boys run the risk of failing in both. Moreover, it is an established fact that a good grounding in any language helps the mastery of another. It would be by far the best method to allow the student to study either in English or the vernacular and express himself in the latter so that the proper understanding of the subject would be ensured. Secondly, the study of English as a compulsory second subject would ensure the proper understanding of any subject expressed in that language. In other words, books written in English would be understood although students would not be required to express themselves in English. Finally, this would ensure the mastery of the vernacular with regard, at least, to its basic principles. Thus, the third paper in English, as it stands at present, may be suitably modified for this training. This double method is necessary to conserve youthful energy and put it to the greatest use.

(*f*) Yes; English should be taught to all students during their undergraduate career. As already said, teaching should be on the lines at present followed in that of the third paper in the I.A., I.Sc; and B.A. English courses. With proper modifications this should be sufficient for the purpose. But I do not think that linguistic study should be divorced altogether from the practical use of the language. I would have some English literature included. Out of three papers, as now, one, instead of two, may be devoted to literature, whereas a special course of English literature should be left as an optional subject.

BASU, Rai P. K., Bahadur.

(i) My answer is in the affirmative.

(ii) (*a*) I do not consider a large majority of them to have an adequate command of English.

(*b*) Up to what is called the middle stage, *i.e.*, class VI (seventh class in West Bengal), the medium of instruction should be the vernacular. Beyond that, *i.e.*, the top four classes, the medium of instruction should be English.

(*c*) The training now given is defective; the direct method, dialogues, telling stories in English, writing letters in simple English, should commence early in a boy's career. A few lessons and exercises in translation take the place of all these now. More would depend upon the teacher's ability to speak in English correctly and fluently. The attention of managers of schools to this point is the main factor of success in this direction.

(*d*) My answer is in the affirmative; a study of the literature of a country cannot ensure a knowledge of the living language of that country as is made use of in everyday life.

BASU, Rai P. K., Bahadur—*contd.*—BASU, SATYENDRA NATH—Bengal Landholders' Association, Calcutta.

(*e*) I would answer in the affirmative, except that a slight departure may be allowed in the case of classical languages, where an examiner may like to test the knowledge of the candidate by setting some questions in the language selected by the candidate.

(*f*) I would answer in the affirmative. As English is fast becoming the language of commerce, industries, and the professions, a working knowledge of English is necessary. Teaching the history of the subject would be sufficient for those who had no grounding in English beyond what is provided for the matriculation

BASU, SATYENDRA NATH.

(i) English should be used as the medium of instruction and of examination at every stage above the Matriculation in the university courses. But, occasionally, the vernaculars may be used for elucidation and impression.

(ii) (*b*) Instruction up to the matriculation stage in all subjects—English, of course, excepted—should be given in the vernaculars of the presidency.

(*c*) Yes; in respect of English; but in regard to other subjects it should be optional for the candidate to answer either in English or in his own vernacular.

In schools attention should be given to the practical training in the use of the English language, leaving to the University the training in literature. Students whose general course of study may be other than linguistic should be exempted in the senior college classes from training in English.

Bengal Landholders' Association, Calcutta.

(i) We hold that in a Bengali university the medium of instruction and of examination should be Bengali. Unfortunately, the present system has been in existence for a great number of years, and there is an absence of proper text-books in various subjects in the Bengali language. We do not think there is any difficulty at the present stage in adopting Bengali for our matriculation students—English being treated as a second language. We ought to aim at replacing English by Bengali in the higher stages. We would recommend thesis writing in the Bengali language for our doctorate degrees to encourage the study of that language, and adapting it for advanced subjects.

(ii) (*a*) We do not think that university students have, on their entrance to the University, an adequate command of English; and this is mainly due to the method of teaching and examination in that subject that now obtains in our schools and in the University.

(*b*) English need not be used as the medium of instruction in secondary schools for the preparation of students for the matriculation. It should be treated as a second language and adequately taught for that purpose.

(*c*) The training now given in English before entrance to the University is due to the method of examination.

(*d*) We think greater attention should be paid in schools to practical training in the use of the English language and in the University course to the study of English literature.

(*e*) We think that the matriculation examination in all subjects except English should be conducted in Bengali. It should be in English so far as the English paper only is concerned. Bengali students ought to be examined in Bengali in all the other subjects, with the option to those whose language is not Bengali to answer papers in English.

Bengal Landholders' Association, Calcutta—*contd.*—Bengal National Chamber of Commerce, Calcutta—Bethune College, Calcutta.

(*f*) We think English should at present, be taught to all students during their University course. It should be such as to enable them to follow text-books which they have to read, or which may have to be referred to in furtherance of their studies.

Bengal National Chamber of Commerce, Calcutta.

(i) Without going into details we desire generally to observe that, so far as Bengal is concerned, Bengali should be introduced gradually as the medium of instruction in different branches of learning, and that steps should at once be taken to arrange for the publication of Bengali translations of standard literature in all branches of learning. The Bengali language has made great progress within a very short space of time and admits of vast expansion in all directions and is adaptable for scientific literature.

Bethune College, Calcutta.

(i) and (ii) The vernacular may be used as an optional medium of instruction and of examination at every stage below the B.A. honours standard. So long as good text-books in the vernacular are not forthcoming the medium must be largely bilingual; but the University should at once take measures to stimulate the production of such text-books, as far as practicable. It is not unreasonable to expect that if the University formally recognised the vernacular as a medium, and offered premiums to the authors of the best text-books in vernacular, substitutes for the ordinary English text-books would appear in a short time.

Bhattacharya, K.C.
Sen, P. C.
Chatterjee, K.B.
Roy, D N.
Chowdhury, B.K.

In any case, however, it is demanded that students should have enough knowledge of English to understand books written in the language, though they may be allowed to answer questions in the examinations in whatever language they can express themselves correctly and intelligently. To ensure this it may be advisable, at the beginning, to prescribe some definite text-books written in English and to test the students' understanding of them by specific questions in the examinations. As a natural corollary to the recognition of the vernacular medium the standard of the examinations might be made stiffer than at present.

It is not necessary that every student in the University should study English literature. It is only demanded that he should have enough knowledge of the *language* to understand English books in other subjects and to express himself correctly for practical purposes. Let there be stiff tests throughout of practical acquaintance with the language; but literature should be made an optional subject, to be taken by those who have special aptitude for it. As this will mean a considerable lightening of the course of studies it should be possible to raise the standard in subjects which the student may elect to study in lieu of English literature. English literature in the intermediate and B.A. constitutes the heaviest item in the present curriculum, though its educational value for most students appears to be utterly disproportionate to the amount of time and energy spent upon it.

The present system is open to a double objection :—

Firstly, the working English in which every student requires to be trained is sought to be taught in the wrong way, *viz.*, through fine literature.

Secondly in subjects other than literature, taught through a foreign medium, students learn more words than things, the grip of facts being lessened by the salvery to ill-understood words.

Bethune College, Calcutta—*cont'd.*

The working English, if taught by a more rational method than now, should be sufficient for all transactions in Government offices and business houses, and may serve the purposes of a *lingua franca* for the whole of India. A real mutual understanding among the different provinces, so far as language can bring it about, will depend, however, much less upon this *lingua franca*, which can never become the language of the masses, than upon the diffusion of a comparative study of the main Indian vernaculars and the gradual establishment of a common script.

The distinction between the language and literature can hardly be made profitably in schools where, however, more stress may be laid upon practical training in the use of the language than at present.

The vernacular should be the medium of instruction in secondary schools in every subject other than English, which itself should be taught, except in the lowest forms, through the English medium, as far as possible. Good text-books in the vernacular should be more easily forthcoming for the school standards than for the college standards.

The vernacular should be an optional medium for the matriculation examination in every subject other than English.

Janau, Miss A. L.

I thoroughly agree with the sentiments expressed above. The teaching of subjects, other than English, in English, should be discontinued, both in schools and colleges. Everything should be done to encourage the writing of suitable text books in the main vernaculars.

English should remain as a compulsory second language, and should be taught as a modern language, not as a sixteenth or seventeenth century literature, as at present. To my mind, there is no excuse for imposing English as the language of teaching or of examination and to so impose it, is to lay a burden upon the Indian people which is likely to kill any originality of thought individuals may possess, and is sure to kill the genius of Indians as a race. The effect is the same as if the life and soul of a sweet pea accustomed to express itself in delicate tendrils were housed in the body of a thistle and had to attempt to express its soul through the prickles of the stem and leaves and spiny bracts of the thistle. Such a plant would offend our taste and be thrown away as a weed.

In the case in question, one of two things happens—either the Bengali has not the English vocabulary to express his thoughts, and has to limit their expression to his limited vocabulary, which gives us no idea of the thoughts in his mind; or we have a man with a strong gift of expression and a copious English vocabulary who expresses his Bengali soul in English words—the choice of words, the grammatical correction, is all beyond reproach—but we immediately feel—"this is not English—no Englishman or woman would say that"—and the thing offends us. As teachers we are bound to say:—"This is not English", meaning not the grammar, not the words, but the expression of such sentiments, and we show them how an English person would express (or leave unsaid mostly) himself. By so doing we are suppressing the expression of the Bengali soul, and not of the Bengali only, for the whole of this land of millions of souls will become dumb until the new language has had time to become theirs and, even then, it will not be an additional note to the human symphony, but the reiteration of the English note. What would the culture of Europe be if we lost the music of the French, the soft cadences of the Italian language and modes of thought?

By the suppression of the main Indian vernaculars we are making the future of the world's symphony the poorer by the loss of all the Indian notes in its scale of harmony.

The present practice is a legacy of a time when the educational outlook of Englishmen was insular and narrow and is not worthy of the present Britain—the mother of a world Empire.

Bethune College, Calcutta—*contd.*—BHADURI, Rai INDU BHUSAN, Bahadur—BHADURI, JYOTIBHUSHAN, DEY, B. B., and DUTTA, BIDHU BHUSAN.

(ii) (*b*) Only as a compulsory second language, taught on the best modern direct method by teachers who can speak English correctly. [This is scarcely practicable now, but with the better teaching suggested in other answers would soon become practicable.]

(*d*) Certainly, for ordinary students of English, as a compulsory second language, *modern* English prose (and a little poetry), with plenty of colloquial vocabulary, should be taught, and not the language of Shakespeare and Milton. These might be left to B.A. honours students studying the literatures of England.

BHADURI, Rai INDU BHUSAN, Bahadur.

(i) Yes; English should be used as the medium of instruction.

(ii) (*a*) In the majority of cases university students have not an adequate command of the English language on their entrance to the university. The standard of the matriculation examination should be raised. More attention should be paid to teach students to write and speak English correctly; and in order to ensure this, grammar should be made a special subject of study. History and geography should also be made compulsory. It is idle to think of teaching a boy English literature unless he learns the history of England and the histories of the countries from whose languages the root of the English tongue is derived.

(*e*) Examinations in English, history, and mathematics should be conducted in English.

(*f*) English should be made a compulsory subject up to the first degree examination. Those whose course of study may be other than linguistic may take up one or two special subjects, *e.g.*, physical science and chemistry, physical science and mathematics, or any other two combinations of scientific subjects. The study of English will not hinder them from studying the special subjects.

BHADURI, JYOTIBHUSHAN, DEY, B. B., and DUTTA, BIDHU BHUSAN.

(i) In colleges teaching should be conducted through the medium of English except in the case of vernaculars and second languages.

(ii) (*a*) Students do not always have an adequate command of English when they enter the University.

(*b*) In schools a vernacular should be the medium of instruction as far as possible. All sound methods of instruction proceed from the known to the unknown. English cannot be a medium of instruction unless some command over its use has been secured.

There is, however, a want of good text-books in the vernaculars as nearly all existing works have been produced from purely mercenary motives. The text-book committee, whose main function is the selection of books but not their production, has not, so far been able to remove this long felt want. Standard text-books in the vernaculars on different subjects should be written under the direction of the University by strong committees of specialists in separate subjects.

(*c*) For imparting sound education in English better teachers are badly needed, especially for the lower classes of schools.

(*d*) In schools English literature need not be studied as such. Schoolboys should be trained to write simple, clear and correct English and understand modern English prose works dealing with topics familiar to them.

(*e*) Matriculation candidates have, at present, the option of answering the history paper either in a vernacular or in English. This system may be

extended to other subjects if (*b*) and (*c*) be complied with. In the papers for the vernaculars and second languages the present system of demanding the answers to some of the questions in English may be discontinued and so many marks should not be set apart for translation into English.

BHANDARKAR, SIR R. G.

(i) My answer is in the affirmative; the general drift of ideas conveyed by the University education that is given to Indians is European and English. The vernaculars have not yet been fully developed and adapted for the expression of these ideas. A suitable literature, in what I may call European subjects, has not yet sprung up amongst us. In this state of things education and examination through the medium of the vernaculars cannot, I believe, be effective; and if the use of the vernaculars is forced upon us it is apt to lead to the formation of a mongrel dialect—half-English, half-vernacular. Again, if the vernaculars are used as the media of instruction there will be insuperable practical difficulties, especially in the presidency of Bombay, where the principal vernaculars are Sindhi, Gujarati, Marathi, Kanarese, and Urdu. Our colleges are resorted to by students speaking all these dialects, and in each subject teachers able to teach through these languages will have to be secured. The substitution of vernaculars for English must be left for the future.

(ii) (*a*) I do think that they know English enough to understand the lectures delivered by professors though they may not be able to speak English fluently and idiomatically

(*b*) English and vernacular should be combined in giving instruction in secondary schools. The vernacular should be used to ensure that what is taught is understood by the pupils; or to impress the subject clearly on their minds. But in the two highest standards which, in our presidency, are the sixth and the seventh, greater use of English as the medium should be made.

(*c*) In the training given in English before entrance to the University there is much room for improvement. Students should be required to read more English in the shape of the histories of Greece, Rome, England, and India.

(*d*) There is oftentimes an inability to speak English fluently or to use it with ease in writing in the case of persons who have gone through a pretty long course in English literature. Attention should, therefore, be directed to the teaching of the use of the English language in speaking, as well as writing, separately and distinctly from the teaching of literary works.

(*e*) I think that, in consequence of the difficulties entailed by the multiplicity of vernaculars, especially in the Bombay and Madras presidencies, the matriculation should, in all cases, be conducted in English.

(*f*) English should be taught to all students during their University course as a general rule. As to students who have taken up a line other than linguistic they should be taught English like all other students up to the intermediate examination of our University. When they take up a special subject after that the English of the books on that subject will be sufficient to give them further instruction in that language.

BHATTACHARJEE, MOHINI MOHAN.

(i) Bengali instead of English, should be used as the medium of instruction and of examination in schools, as well as in the University. English is a bond of union amongst the races of India speaking so many different languages. English is the key to one of the richest literatures of the world; the study of English has fostered the growth of the glorious literature of modern Bengal. Facility in writing and speaking English helps intercourse between Europeans and Indians and

BHATTACHARJEE, MOHINI MOHAN—*contd.*—BHATTACHARYA, JOGENDRANATH.

enables them to understand one another better. Even when one is prepared to admit all this, and many things more, one is not bound to admit that English ought to be the medium of instruction in our schools and in the University. In the Hyderabad University the vernacular has been made the medium of instruction.

That Bengali ought to be the medium of instruction and examination in schools will, perhaps, be readily admitted by all. It is preposterous to attempt to teach a foreign tongue to children who can scarcely express themselves in their own language. I do not think an attempt of this kind has been made in any other country. For want of good teachers, and also because the idea is unnatural, the teaching of English in schools is quite unsatisfactory. Students who after matriculating join the college are generally poor in English. They have, indeed, a tolerable reading knowledge of English, but it is difficult for them to express their ordinary ideas clearly. To expect that these students should read with appreciation English works on the higher branches of knowledge and answer questions on them in English is certainly expecting too much. Ambitious plans too often fail, and it is not surprising to find that this plan, too, is no exception to the rule, There is a close connection between language and idea, and if one has to spend one's energy in getting over the peculiarities of phrases and idioms the idea is sure to be missed. Again, if a student has not a full command of the vocabulary his ideas are sure to be ill-expressed. Examiner after examiner has complained that Indian students distort ideas in expressing them, that they are too bombastic, that they use words without grasping their exact significance, and, as a result of these blemishes, their composition is deemed to be worthless.

There is another reason why Bengali should be the medium of instruction and examination throughout. The growth of Bengali literature will be fostered if text-books in philosophy, economics, history, and other subjects—arts as well as science—are compiled in Bengali. But they will never be compiled in Bengali unless, and until, there is a large demand for such books, and this demand should be created by the University.

It has been said that the Bengali vocabulary is not rich enough to express the ideas, and the shades of ideas, which form the content of this variety of subjects, and that it is impossible to find exact equivalents of technical terms. I have consulted a teacher of mathematics and he says emphatically that there are equivalents in our language (of course drawn from Sanskrit) for all mathematical terms. I am sure the technical and special terms used in other sciences can be similarly rendered into Bengali with the help of Sanskrit. The *Sahitya Parishad* has actually translated many terms used in geology. If there are terms which cannot be translated we may use them as naturalised words as has been done under the force of circumstances in so many other languages.

(iii) If Bengali is adopted as the medium of instruction and examination all the text-books, excepting books on English literature and the English language, will have to be translated into Bengali. But every student must be taught the English language and English composition. If English no longer remains the medium students will not have to read it as often as they do now. Hence, all possible care ought to be taken to make the teaching of English efficient. Students will have to learn this language throughout their school career and University students will have to take a course in the English language to qualify for the B.A. degree.

It is needless to add that, once Bengali is adopted as the medium, lectures will have to be delivered in this language.

BHATTACHARYA, JOGENDRANATH.

(i) For those boys who are going in for higher university degrees and for learned professions English should be the medium of instruction and of ex

amination at every stage above the matriculation, and these must have, on their entrance to the University, an adequate command of the English language to make it possible for them to acquire improved knowledge in science or arts. The more they will learn that language the better will they become acquainted with the treasures of western science and western literature. In secondary schools the medium of instruction should be English in the matriculation class alone; in classes downwards instruction will be imparted through the medium of the vernacular. Next, there are numbers of pupils who enter the secondary classes, especially those at the middle stage, who, though they persevere to the conclusion of the course, fail to attain a standard in English that will carry them through the University stage. They are generally found to be very intelligent, and particularly strong in vernacular and mathematics, but, owing to their incapacity to master the English language, they fail, and their life becomes an arid waste. For these some provision should be made by the University. On enquiry it has been found that less than one-fifth of those admitted to the secondary course pass the examination that concludes the school course, while one in every thirty-two succeeds in obtaining a degree. In 1911-12 the number of those who matriculated was 16,351, the number who graduated was 2,742. This is, surely, a great wastage, and the loss of energy entailed upon pupils and teachers is considerable. This failure is largely due to the want of capacity on the part of pupils to master the English tongue. It is for these that a separate examination, on the same lines as the matriculation, will have to be held in the vernacular, with English as an optional subject. This will differentiate them from those who are going in for learned professions. To offer natural continuation, vernacular colleges will be established in which mathematics and the vernacular will be the compulsory subjects in the intermediate stage. Ultimately, pupils will secure degrees in the vernacular or in mathematics, as students get B.A. and M.A. degrees in English or philosophy from colleges conducted on an English basis. Depend upon it, the scientific study of the native language will never be developed unless, and until, there are degrees in the vernacular. It may be urged that there is a paucity of requisite text-books for the vernacular college classes, but these will be forthcoming if the University takes up the business in right earnest. There are a good many Bengali authors who, if requested, will supply the deficiency.

The question next arises, what would become of these vernacular graduates? How would they earn their living? The answer is that they will serve as teachers in survey schools, medical schools, and schools of engineering and of agriculture, all of which may be run on vernacular lines. Government may appoint them as sub-registrars, sub-inspectors of police, kanungos, and head pandits of middle vernacular and middle English schools. The services will not at all suffer; on the contrary, the duties will be done in a better way because the officers will be able to express their ideas more correctly in their own language. Thus, if the vernacular side is opened and carefully fostered, students will have new openings and will not crowd into a literary course with a view to entering professions.

BHATTACHARYA, KRISHNACHANDRA.

(i) and (iii). The vernacular of the province should be made for the present an optional medium of instruction and examination for all stages up to the B.A. pass standard and in all subjects other than English.

It is not necessary and is, in fact, undesirable, that every student in the University should study English literature. What is demanded of an Indian student is that he should have enough knowledge of the language to be able to understand English books in other subjects and to express himself correctly for practical purposes. The distinction between the language and the literature should be

made at once in colleges. English literature should be made an optional subject to be offered only by those who have a special aptitude for it. As to practical training in the use of the language, exacting tests—oral and written—should be instituted at all stages, and for all students, whether their general course of study be linguistic or not. English literature in the intermediate and B.A. constitutes the heaviest item in the present curriculum, though its actual educative value for most students is utterly disproportionate to the amount of time and energy spent upon it. To make it an optional subject would be to lighten the course considerably and to render it possible to raise the standard in the subject which the student may elect to study instead.

The working knowledge of English which every student requires is at present taught in the wrong way, *viz.*, through fine literature. My personal experience is that students in colleges do not generally progress in their working English very much beyond the level attained in the matriculation stage.

In subjects other than English which are now taught through a foreign medium the average student appears to learn more words than things. In the examination papers not only does he express himself clumsily, but has a peculiarly vague understanding which is due to an unreasoning slavery to ill-understood words.

The greatest difficulty in the immediate recognition of the vernacular medium is the want of vernacular text-books. The want cannot be met at once and, so long as it is not met, the medium must be largely bilingual. This, however, is hardly an objection to the *optional* use of the vernacular medium being introduced at once. But it lies with the University to stimulate the production of suitable text-books in the medium. If it formally recognises the medium, and offers premiums to the authors of the best text-books in a subject, it is not unreasonable to expect that suitable vernacular substitutes for ordinary English text-books would appear in a short time, though some English text-books may not be easily replaceable. As, in any case, it is demanded that students should have enough knowledge of English to be able to understand books written in the language a certain number of English text-books should be definitely prescribed, at least for some time to come, and questions should be set in the examinations to test their understanding of these books.

The distinction between English language and literature can hardly be made profitably in schools where, however, more stress may be laid upon practical training in the use of the language than at present.

The vernacular should be the medium of instruction in secondary schools in every subject other than English, which itself should be taught, except in the lowest forms, through the English medium as far as practicable. The problem of vernacular text-books is more easily solved for schools than for colleges.

BHATTACHARYYA, BAIKUNTHA NATH.

(ii) (c) No; under the existing system pupils do not care to read any of the books recommended by the University for the simple reason that no question is set from them. I favour the introduction of a fixed course on the ground that the study of one book is better than reading nothing.

It is absurd to suppose that the language of a nation can be learnt dissociated from its history and, hence, the inclusion of English history in the matriculation course is recommended.

Mere paper examination is not a sufficient test. Candidates should pass an oral test.

(*d*) In schools there should be only practical training in the use of the English language, to the exclusion of the study of English literature. In colleges the use of the English language should be compulsory for all grades, there being a department of English literature for specialisation.

BHATTACHARYYA, BAIKUNTHA NATH—*con'd.*—BHATTACHARYYA, DIBAKAR.

(*e*) No; English should be the medium of instruction in all the subjects, except classics, vernacular, history, and geography, for which the medium should be vernacular.

(*f*) The English language should be compulsory for all students, including those whose general course of study may be other than linguistic. The advantage of a decent knowledge of English is too obvious to need a detailed defence.

English should be the medium of instruction and of examination in English language and literature. In other subjects the instruction may be given in English, largely supplemented by vernacular where necesary. For the present, it should be left to the option of candidates to answer their examination papers in English or in the vernacular, with the ultimate aim of eliminating English as the medium of examination, when suitable text-books on those subjects will be forthcoming. The difficulty of nomenclature and terminology may be overcome by retaining freely the names and terms of other languages.

BHATTACHARYYA, DIBAKAR.

(ii) (*e*) I think that the medium of instruction in all secondary schools should be the vernacular, and not English, and that the matriculation examination in all subjects should be conducted not in English, but in the vernacular. I beg to dwell as follows upon the defects of a system in which the medium of instruction is other than the vernacular:—

(A) It is most unnatural, unscientific, and unnecessary, and nowhere followed in any part of the civilised world.

(B) The English language is very difficult to acquire; its spelling and pronunciation are "full of confusing anomalies and imperfections and involve an enormous and unnecessary strain on the faculties of learners". Moreover, the idiom of the language is difficult to a degree.

(C) The aim of all instruction and education is the growth and development of the mind, and for the development of the mind the child must think for himself. Now, when a difficult foreign language is the medium of instruction the thinking power of the young learner is weakened, though not destroyed, and his mental development is retarded. In history, geography, mathematics, and other subjects his ignorance of English continually places him at the mercy of others; he always wants help, and can scarcely stand on his own legs. He tries to learn English at the expense of other subjects so that English, like Aaron's serpent, swallows up all other considerations and becomes not the means to an end, but the end itself.

(D) The success of the work of teachers of all other subjects depends mainly on the work of a single man—the teacher of English. If he teaches badly all other branches of study suffer.

(E) If the medium of instruction be not a difficult foreign language, such as English, two or more new branches of science or learning may safely be introduced in the curricula of secondary schools without telling upon the energies of young learners.

Next I shall proceed to consider whether the vernacular (by which I mean the Bengali language, for in the near future the University of Calcutta is to exercise intellectual control over the presidency of Bengal only) may safely be introduced as a medium of instruction.

Bengali has reached that stage of development in which it can be adopted as a medium of instruction in all university education. This is a most important point, and I would request the Commission to seek expert advice from such recognised bodies as the *Bangiya Sahitya Parishad*, *Bangiya Sahitya Samiti*, and various other literary societies scattered all over the presidency

for the promotion of Bengali literature. Moreover, even now Bengali has been introduced into the curricula of all examinations up to the B.A. My conviction is that no real progress can be made by a people that receives its instruction through the medium of a foreign tongue. Even the English—the foremost nation of the present day—did not make any progress worth the name till they were freed from the trammels of the Greek and the Latin tongues. Their material progress is dated from the period the Bible was translated into English, and all the knowledge treasured up in Greek and Latin was freely diffused amongst the masses in an English garb, and I doubt whether the English would have been able to rise so high if they had continued to impart all their instruction in Greek or Latin as they did in the middle ages. I fully recognise the difficulty that would arise if a vernacular were to occupy the principal position in the matter of instruction In the vernacular we have very few books on higher mathematics or science, but this difficulty may be obviated if the University appoint a board of experts for the compilation of books on those subjects in the vernacular.

I shall now consider whether any serious objection can be raised if Bengali be made the medium of instruction.

(F) The population of the presidency is 45 millions in round numbers, and out of this only a negligible minority, not aggregating much over two millions, speaks Hindi or Urdu. So the majority of the people—nearly cent per cent—will be benefited by the introduction of Bengali as a medium. Even those having Urdu or Hindi as their vernacular will have scarcely anything to complain of, for Bengali is closely related to the aforesaid tongues—so closely that Hindi or Urdu-speaking people find little or no difficulty in learning Bengali. Moreover, young learners, being always surrounded by Bengali-speaking teachers and fellow-students, will acquire the language in no time.

(G) In Bengal, as in all other countries, the dialects differ in different parts so that the dialect of East Bengal, and especially of Chittagong, is not the same as that of Western Bengal. But this is a matter of small importance for the written or literary language is the same everywhere throughout the presidency and is easily intelligible to all.

In conclusion, I beg to state that I do not at all advocate the removal of English from the curricula. As we Indians sustain intimate political and commercial relations with the English, English should be taught as a compulsory second language, young learners up to the matriculation standard receiving only a practical training in English.

BHATTACHARYYA, HARIDAS.

(i) I shall answer this question broadly on the basis of my experience as a teacher from the first- to the sixth-year class. I have taught logic to the first-year class; psychology, metaphysics, theology, and history of philosophy to the third-year class; psychology, metaphysics, and history of philosophy to the fourth-year class; general, child, and animal psychology, theology, history of philosophy, and Indian philosophy to the fifth and sixth-year classes. My experience has told me that first-year students follow me quite easily; third- and fourth-year students find some difficulty with metaphysics (especially the epistomological portion); fifth and sixth-year students find it hard to follow English books on Indian philosophy (especially the translated ones) and some theology books, *e.g.*, Hegel, Royce, Ward, etc.

I should, however, draw a distinction between the medium of instruction and the medium of examination—a distinction not drawn by the question. It not seldom happens that a student follows a lecture quite easily and yet cannot express his

BHATTACHARYYA, HARIDAS—*contd.*

thoughts in English owing to his imperfect command over the English tongue. Indian students think generally in their own vernaculars and translate their thoughts into English in their examination papers. An intelligent examiner can very easily detect this struggle for utterance in most papers. A good piece of composition is generally a reminiscence of other people's writing—the professor's or the annotator's.

(ii) (*a*) I, therefore, think that *a major portion of matriculates follow quite intelligently the lectures delivered to them in English.* The main complaint comes from persons engaged in teaching the English language, especially Europeans. But a variety of causes operates besides an alleged imperfect command of English :—

(A) Students fresh from school find it difficult to follow European lecturers as they are not familiar with the accent and intonation of the latter.

(B) European professors generally slur over passages embodying English social ideas or manners as being too easy—ideas with which Indian students are totally unfamiliar.

(C) Sometimes *text-books are recommended without reference to their suitability.* As instances might be mentioned, Lyall's "Tennyson," Stopford Brooke's "Milton," etc. Before the students have read anything of the writers a book criticising their works is recommended. [Similarly, in the B.A. examination, books like Raleigh's "Shakespeare" and "Milton" are recommended where students have read two works of Shakespeare and part of a work of Milton.]

(D) Books are full of allusions, and require a good all-round general knowledge. But the system of narrow specialisation begun even before the matriculation stage keeps an ordinary student ignorant of most things alluded to.

(E) Imperfect powers of exposition in teachers, and the system of cramming as many points as possible within the short compass of a note, account a good deal for the alleged defect of students. Improper method of teaching (*e.g.*, following the syllabus, prescribed too slavishly) is equally to blame.

I think, however, that the complaint that students cannot write well is well-founded. Even M.A. examinees make ludicrous blunders sometimes and, but for a mechanical system of examination, they would have been weeded out at a lower stage.

Two alternative remedies are possible. Either the training in English up to the intermediate standard must be improved, or a vernacular medium of examination must be accepted. The former can be secured by insisting upon the keeping of trained men in each school and practical training in grammar and composition and adopting an English medium of instruction in the second class and in the matriculation class. In the intermediate classes tutorial assistance must be more than nominal, and tutorial periods must be approximately equal to lecture periods in English, or each batch must be of not more than ten, so that defects in composition may be pointed out to each student.

I am personally of opinion, however, that *a vernacular medium of examination should be adopted up to the intermediate standard* in as many subjects as possible. I am conscious that it is sometimes more difficult to find a suitable vernacular word than an English one (especially in scientific subjects). But students may be allowed to use English technical words in their examination papers. A hybrid Bengali that expresses a student's thoughts is far preferable to halting English that gives nonsense.

But I am not sure about the wisdom of accepting the vernacular as the only medium of instruction for the following reasons :—

(1) This would mean the total elimination of foreigners from the teaching staff of intermediate classes, which is not desirable.

BHATTACHARYYA, HARIDAS—*contd.*—BHATTACHARYYA, Mahamahopadhyaya KALIPRASANNA.

(2) There would be difficulty about fixing the number of vernaculars. There is a large body of non-Bengali students within the Presidency, and one institution at least must continue to teach through the English medium or a multiplicity of classes would be necessary.

(3) Teachers and students do not belong to the same district. Provincialism and local intonation of teachers would stand in the way of an intelligent following of lectures in some cases.

(4) Some teachers would find it very difficult to deliver lectures in Bengali. Speaking for myself, I can hold, and have held informal classes up to the M.A. standard in Bengali, but I am not sure whether I could address a big class in Bengali. The inevitable result would be that hybrid Bengali would be the medium of instruction.

(5) There is a paucity of good vernacular books on scientific, technical, and serious subjects. The few that exist are full of Sanskritic words that are harder to understand than their English equivalents.

Some of these difficulties will, of course, vanish in due time, but some are likely to persist.

I, therefore, suggest that the *medium of instruction be optional up to the intermediate standard.* If however, some means can be found of decentralising college education and compelling students to read up to the intermediate standard within their own district, classes would be small and teachers would use the vernacular medium in greater numbers. I think that the time has come when the vernacular of the province ought to be given a fair chance. One hundred years' English teaching has not produced a notable publication in the dialect of the province embodying the assimilated Western wisdom. It is not thought possible or necessary to express Western ideas in an Eastern garb. The acceptance of an optional vernacular medium of instruction is likely to give an impetus to the enrichment of Bengali literature in some of its neglected aspects.

I am, however, deliberately of opinion that *in the degree and the post-graduate stages English should be the medium of instruction.* Students should be induced to have first-hand acquaintance with the master minds of the West and to the understanding of original books. Besides, a certain percentage of teachers at these stages is likely to be English.

I have, however, no objection to the *medium of examination being vernacular in some specified subjects even in the degree stage,* but honours students must always answer in English. English should be the medium of instruction and examination in the post graduate stage, notwithstanding the fact that a plebiscite of this session's sixth-year philosophy students (numbering about 100) was in an overwhelming majority in favour of a vernacular medium of instruction.

I do not share the opinion of those who, on political grounds object to a vernacular medium, or of those who think that political unification should come through Hindi, and not English, as the *lingua franca.* I think that the plan I suggest will be found satisfactory, even from a political standpoint, as it is not desirable that an active interchange of ideas through English should take place before the degree stage. The compulsory English medium of instruction at the degree and the post-graduate stages would continue to make English a political bond of unity.

BHATTACHARYYA, Mahamahopadhyaya KALIPRASANNA.

(i) Yes; English should be used as the medium of instruction and of examination above the matriculation in the University course.

(ii) (*a*) University students, in the majority of cases, do not possess a sufficient command of English; but still they can understand the lectures delivered to them in English.

(*b*) As far as English is concerned the medium of instruction for matriculation students should be English in the first three classes; but in other subjects the medium of instruction should be the student's own vernacular.

(*c*) There ought to be fixed text-books in simple English along with the existing system.

(*d*) Yes; in the college both English literature and language ought to be cared for; whereas in the school only the language is to be considered.

(*e*) No; in all other subjects except English the examination should be conducted in the vernacular of the students.

(*f*) Science students should not be taught English literature in the proper sense of the term; but they must be taught the English language during their University course.

BHOWAL, GOVINDA CHANDRA.

(i) Yes.

(ii) (*a*) No.

(*b*) English should be used as the medium of instruction in secondary schools in all subjects except in the junior classes and the vernaculars. The English medium should be commenced from the sixth class at the latest.

(*c*) No; I would suggest the following improvements:—

(A) There should be a text-book prescribed for the matriculation examination every year.

(B) English composition should be taught by pointing out the peculiarities in the idioms and style of the English language. The similarities and differences between English and the vernacular of the students should also be pointed out.

(C) Rules of grammar and composition should be illustrated by examples from standard books of English literature which are specimens of style suitable to the capacities of the boys to be selected by the class teachers.

Grammar and composition should be taught in each class, with special reference to the English text-book of the class.

(D) Orginal composition done by students should, as far as possible, be compared with that on similar subjects by good English authors.

Grammars should not be changed in each class. The same grammar should be taught in classes IV and V. One and the same grammar should be taught in classes VI, VII, and VIII, and one and the same grammar should be taught in classes IX and X. It is better that the same grammar should be read wholly, than that parts of different grammars should be read.

(E) Translation from English into a vernacular should be based upon text-books in the class or upon other good English books suitable to the capacities of the boys. Translation and retranslation should be based on standard English works. The class teacher should select English sentences and passages from a standard English work and set them to the students for translation into their vernacular. When the boys have done that their mistakes should be pointed out and corrected. For translation from a vernacular into English the class teacher should select sentences and passages from a standard English work suitable to the capacities of the students and translate the same into the vernacular and then ask the students to render them into English. When the students have done that they should be shown the original and be asked to compare the two and discover their own mistakes. When the boys have become sufficiently accustomed to this they may be given vernacular passages from a Bengali author for translation into English and, when the boys have done that the class teacher should explain to the

students how an Englishman would express the ideas and thoughts in the vernacular passage. The difference between the idioms of the two languages should be explained. In all the classes, particularly in the lower classes, translation should be based upon the class text-book In all classes the correct and exact vernacular equivalents of English idioms and phrases should be attempted to be given to the students. Translation books by Bengali authors not satisfying the above conditions should not be used at all. Mixed grammar in English and the vernacular should not be taught at all. The translation of relative pronouns and adjective pronouns into the vernaculars would be worse than useless to the learners. It is by no means an exaggeration to say that the use of the English dictionary has, in a manner, gone out of use in our secondary schools. The use of the dictionary should be strictly enforced. Derivation should be taught thoroughly. Indian students cannot be expected to catch the spirit of an English word unless he knows its derivation. The majority of our boys while speaking and writing English uses wrong words and the reason is clear.

(*d*) Yes; I do; practical training in the use of the English language aims at facilities in writing and speaking English. In order to gain that object special attention should be paid to composition and translation; students should also be made to read largely standard English works and English newspapers written in good style and healthy novels.

The study of English literature involves comparison of different authors, criticism of their styles, and the study of the history of the English language, *i.e.*, study of its origin, growth, and development. The study of an author, should be with reference to the history of his times and with reference to the causes which determine the current of thought and mould of language in a particular period. Instances are not wanting of students trained in the study of English literature deficient in the training of the English language.

(*e*) Yes; except in Indian classics and vernaculars.

(*f*) Yes; they should be trained in the English language. Their proficiency in English should be such that they may understand text-books in their special subjects and follow lectures on them.

BISS, E. E.

(ii) (*b*) and (*c*) English was originally taught in Calcutta and a few other towns by a small number of Englishmen, some of whom spoke Scotch. It has spread with amazing rapidity among an enormous rural population. It is scarcely surprising that its quality as a spoken language has deteriorated in the process. During my time in the Dacca Training College I have repeatedly come across graduates who had before their admission never spoken to an Englishman in their lives. We differ widely among ourselves in the way we speak and it is hardly surprising that Bengali students, fresh from schools, where they have seldom heard an Englishman's speech for more than a few minutes at very rare intervals, find it impossible to understand Englishman's English at once, or to pick up the correct intonation of the language themselves. I confess that I am astonished that English is as well known as it is, epecially having regard to the way in which it is usually taught.

If we want a very rapid improvement in the speaking of English in the country districts of Bengal I believe there is no way to secure that end except to introduce an impossible number of Englishmen as teachers. Failing this all we can hope to do is to improve the English of Bengali teachers by slow degrees and to employ the best of them in all the English work, especially in the lower classes. I

consider that a number of selected teachers should be sent to England to make a thorough study of phonetics. There should at least be one man trained in phonetics on the staff of each training college. I should like also to see an Englishman appointed for a similar purpose in each of the larger Government colleges.

I do not propose to discuss the question of the medium of English in detail. I experimented in the Transvaal with English in the Boer schools and came to the conclusion that children should be accustomed to English as a medium from the infant stage or, in the alternative, that they should be taught through the medium of their mother tongue throughout their school lives, learning English under special teachers as a foreign language. I also experimented in the Dacca Training College and the experiments seemed to show that the general education of boys would be much improved if they were taught throughout their school career through the medium of their mother tongue. I doubt whether, if this latter course were adopted, their English vocabulary would be as wide as it now is. Personally, I favour education rather than mere vocabulary, but consider that this is a matter on which the lead should come from the educated part of the Bengali nation.

BISVAS, Rai DINANATH, Bahadur.

(i) English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course. English is the medium through which students can gain an insight into all the knowledge of Western countries. At the same time, I consider the vernacular should be taught on a scientific basis and some of the subjects, such as history and geography, for general culture, may be taught in the vernacular, with text-books edited for the purpose.

(ii) (*a*) I do not think that University students have, on their entrance to the University, an adequate command of English.

(*b*) Geography, geometry, and scientific primers should be taught in the vernacular Teaching of history in English will help the acquisition of knowledge in English, but the answers in the examinations of history should be in the vernacular. Vernacular geography, with names of different countries, mountains, rivers, lakes, seas, and oceans in English (to help correct pronunciation and spelling), in addition to vernacular names in case of India only, should be introduced to teach geography. Geometry, also with English names of figures, lines, etc., in addition to the vernacular names, should be introduced. Science primers in the vernacular, with scientific technical names, both vernacular and English, should be introduced; the object of using vernacular names is to enrich the vernacular language by coining words which are wanting.

(*c*) I am not satisfied with the kind of training now given in English before entrance to the University. The reason for this unsatisfactory state of things is due to the want of a fixed text-book in English. Though the University authorities introduced the present system with the best of intentions the result has been disappointing. I think a thorough study of one well-chosen text-book helps more in the acquisition of knowledge in English than in the desultory and half-reading of a dozen books recommended. Special stress should be put on essay writing. In addition to the question from the text-book some questions from unseen passages might also, with advantage, be set in the examinations.

(*d*) In schools special training should be given by holding debating classes to develop conversational powers, and by encouraging the reading of books of tales, biographies, etc.

(*e*) I do not think that the matriculation examination should be conducted i English in all subjects. Examination in history, geography, geometr arithmetic, and science may be conducted in a vernacular.

(*f*) I think so; I think students of t e B.Sc. and other higher scientific and techn logical examinations should have English as one of their subjects—thoug they may not be examined in English in the final examinations [wit similar safeguards as suggested in my answer to question 9].

BISWAS, CHARU CHANDRA.

(i) Up to the intermediate stage the vernacular may be allowed as an alternative t English as the medium of examination in selected subjects, but above that stag English should be the sole medium of examination.

The vernacular may, however, supplement English as the medium of instructio in all subjects.

(ii) (*a*) I do not think the general body of University students now possesses, o their entrance to the University, an adequate command of English.

(*b*) The principal medium of instruction in secondary schools should be th vernacular, though in the higher forms English may be allowed to supple ment the vernacular. But I would insist upon special attention being pai to the study of English, much greater in fact than is the case at present.

(*c*) The answer is in the negative; the improvements I would suggest are :—

(A) A freer use of the vernacular as the medium of instruction, thus lightenin the burden that now rests on the unfortunate student who has to maste every subject through the medium of a foreign tongue.

(B) A more thorough grinding of the student in the vernacular than is no the case.

(C) A supply of better and more efficient teachers.

(*d*) The answer is in the affirmative.

(*e*) I think the matriculation examination in all subjects other than English shoul be conducted either in the vernacular or in English, option being allowed t the candidate to make his choice. In English the examination should b wholly in English.

(*f*) Yes; English should be taught to all students through the University course except in the post-graduate stages, where specialisation should be allowed For students whose general course of study may be other than linguistic th course in English may be suitably adapted to meet their requirements b making it more practical, and I would also recommend for them a large measure of practical training in the use of the English language.

BISWAS, SARATLAL.

(i) and (iii) English should generally be used as the medium of instruction, bu for the convenience of particular students other languages may be used.

English or Bengali (according to the option of the student) should be the medium o examination, with the following exceptions :—

(A) English should always be the medium of examination in English.

(B) Bengali should always be the medium of examination in Bengali.

(C) In intermediate examinations in languages other than English or Bengali, th corresponding language or English or Bengali may be used according to th option of the student.

(D) In the bachelor degree language examinations the corresponding language only should be the medium.

In the M.A. in languages the instruction, as well as the examinations, should be through the medium of the corresponding language.

BOMPAS, The Hon'ble Mr. C. H.

(i) I should like to see the use of English as the medium of instruction diminished, but I fear that little can be done in this direction. In the first place, instruction in science and medicine must probably be given in English owing to deficiencies in the vernacular vocabulary; and, secondly, if instruction is given in English the student does acquire a certain facility in the language, which he probably would not otherwise do, and which, under present circumstances, is essential to an educated man. There is also the difficulty that students in the same class may have different mother tongues.

BOROOAH, JNANADABHIRAM.

(i) English should ordinarily be the medium of instruction. But a student appearing for any of the oriental languages should be taught through the medium of those languages as far as possible.

(ii) (*a*) I have already said that the intermediate should be done away with. The standard of the matriculation, therefore should be raised a little higher than what it is now, but it should be below the standard which is now in vogue for the intermediate. Most of the students find a little difficulty in understanding an English lecturer for the first few months but they manage to follow him satisfactorily after a little while. To meet this difficulty there should be a class in "conversation" conducted by an Englishman or by an Indian who has received an English training.

(*b*) English should be the medium in all but the vernaculars, Sanskrit, and perhaps, say, history.

BOSE, B. C.

(i) Up to the B. A. instruction should be given in the vernacular wherever convenient, and free option should be allowed to students to use their native tongue in answering the questions at examinations. Otherwise, they have to labour under a twofold difficulty—the abstruseness of the subject matter and the strangeness of the language—in studying history, philosophy, physics, chemistry, etc. Though quite adventitious *in such subjects, the difficulty of the language is found by a great many to be no less a stumbling-block than the hardness of the matter itself.* Hence, *good* translations of books in such departments of knowledge should be warmly encouraged; and, wherever available, they ought to be preferred to the originals (in a foreign tongue) in prescribing the curricula. Even where suitable, text-books in the vernacular are not yet available There can be no harm in *allowing* the lecturers or the students to instruct or to answer questions in the vernacular of the locality if they find it advantageous to do so. Of course, there must not be any compulsion.

Such a course would, besides reducing the strain to which they are subjected during their career, enable the large majority of students to get up subjects like history or the sciences *with more real thoroughness* than is otherwise possible for them. A language is the solvent of ideas; and the more congenial the language in which

BOSE, B. C.—*contd.*—BOSE, Rai CHUNILAL, Bahadur.

the ideas are dissolved the more easy and perfect is the work of assimilation. The mother tongue is to everyone unquestionably the best in this respect.

Besides, if the vernacular is adopted as the vehicle of thought among the alumni of the University it will have a most beneficial effect upon the country at large as well. For, when they go back to their respective societies, these educated youths will (*i*) their ideas have been formed and developed, chiefly in the vernacular) spread their own culture easily and naturally among those who did not come within the direct influence of the University. *They will thus become far more effective centres of wide dissemination of knowledge* (so much to be desired by a university) than the adoption of a foreign tongue could possibly make them.

(ii) While advocating the vernacular I am strongly of opinion that English should always be a compulsory and highly important subject of study for all students up to the B.A. or B.Sc.

(*c*) The training now given in English before the matriculation does not appear satisfactory. A greater familiarity with the language and facility in using it for everyday requirements should be insisted upon.

No pains can be spared to have *thoroughly efficient teachers* in this subject. A foreign tongue, especially a complex one like English, is one of the hardest subjects of study for young minds; and teachers must be able and proficient in the language, as also patient and zealously devoted to their work. *Higher salaries*, if necessary, should be *freely* offered to get the services of such men.

Some particular books ought to be *prescribed* for the study of English. At present, a large number of books is *recommended*, but not one of them is well mastered. A thorough study of a limited course seems more conducive to learning a language than a desultory skimming over a wide field.

And the books selected should chiefly contain inspiring historical incidents, lofty ideas and sentiments, etc., couched in simple and idiomatic language; whereas, in most of the books nowadays chosen for the matriculation we get nothing but idle and puerile tales *ad nauseam*.

(*d*) The distinction suggested is very reasonable, and a thorough practical training in the language itself must always have precedence over a study of its literature. An artistic appreciation of Shakespeare or Milton might well be considered less incumbent as regards the generality of students than an intimate acquaintance with English as spoken and written to-day. Conversational classes might advantageously be insisted upon in all schools.

(*e*) No.

(*f*) As said before, I would recommend the compulsory study of English by *all undergraduates*. The knowledge of English is, for various reasons, a valuable asset to every Indian, besides being helpful in liberalising the mind.

No special kind of teaching need be adopted for those whose general course of study is not linguistic. A demarcation in this respect between them and others does not appear commendable before the bachelor's degree.

BOSE, Rai CHUNILAL, Bahadur.

(i) No

(ii) (*b*) The subjects of history, geography, mathematics, and science in secondary schools should be taught through the medium of the vernacular. Students being relieved of the strain in learning these subjects through the medium of a foreign language would be able to give more time to the study of English proper and would learn these subjects also in a much better way.

(*c*) No.

English should be taught in every school by the direct method by teachers who are duly qualified in this method of teaching.

(*d*) Yes.

All students up to the intermediate standard should have practical training (general knowledge of English, correct ways of writing and speaking English) in the use of the English language.

The study of English literature should be confined to those who specialise in it and should commence at the B.A. stage.

No.

BOSE, G. C.

(i) The goal should be to make the vernacular of the province the medium of instruction and examination both in the University and the pre-University stage provided always that English does remain as a compulsory subject of study and examination at every stage. Only a fair working knowledge of the English language should be insisted upon, as a perfect knowledge of the language and its literature, which is the ideal of many, Indians and Europeans alike, is neither attainable, nor need be attempted. If all subjects are taught and examined in the vernacular the subject matter will be grasped more easily, more thoroughly, in less time, and with less expenditure of energy and brain-power. The time, energy, and brain-power which would thus be conserved will be more usefully devoted to the acquisition of a fair working knowledge of the English language referred to above. The change will thus secure both a better working knowledge of English and a better grasp of all other subjects.

To arrive at the goal referred to above will be the work of time, but a beginning will have to be made first in the school and in the intermediate stage of the University. Moreover, degrees in vernacular studies and research should be instituted at once. The objection that books on the various branches of study are not available in the vernacular is more apparent than real, as vernacular books will be forthcoming as soon as the substitution of the vernacular for English as the medium of instruction and the institution of degrees in the vernacular receive the sanction of the University and the Government.

BOSE, HARAKANTA.

(ii) (*b*) Only in English the medium of instruction should be English.

(*c*) The training now given in English to students before their entrance to the University is fairly satisfactory in most schools. It would be an improvement on the present system if greater attention were paid to the practical training in the use of the English language.

(*d*) There is a difference between training in the study of English literature and practical training in the use of the English language. To acquire facility in the use of the English language it is not indispensably necessary to study much of its literature; the ability to write and speak good English fluently is acquired by practice, and not so much by the study of the literature.

(*e*) No.

(*f*) Only up to the stage of the intermediate examination (in arts as well as science) all students should be made to learn English thoroughly; above that stage it may be taken as an optional subject.

(iii) Up to the intermediate stage of the University course (arts as well as science) all students should be made to learn the English language and literature as a most important subject of study, and the other subjects, such as science, mathematics, history, geography, logic, etc., through the medium of their vernaculars; after the intermediate stage only arts students should have English as a compulsory subject; while for the other subjects the medium of instruction and of examination may be either English or the vernacular of the student, whether he takes up the scince or the arts course.

BOSE, J. M.—BOSE, KHUDI RAM.

BOSE, J. M.

(i) Yes; in science subjects. In history, logic, economics, philosophy, etc., lectures may be delivered in the vernacular and the student may give his answers in any language he pleases.

(ii) (*a*) No; as a matter of fact, I have estimated that about 20 per cent of the students in mofussil colleges give up their studies owing to their inability to follow the lectures. When students have been found to be unable to answer simple questions in the class-room they often succeed in giving intelligent answers if they are allowed to do so in Bengali.

(*b*) English should be the medium of instruction in every subject in secondary schools.

(*c*) No; it is essential that school boys should get a practical training in the use of the English language. Under the existing system the teaching of English is too theoretical. What is necessary is that boys should be able to speak English fluently, and to follow English conversation without difficulty. If they wish to make a special study of the English language and literature they might begin that in the college.

(*d*) Yes; most certainly; as I have stated before, the former is more important than the latter.

(*e*) Yes; because it will help boys to learn the language.

(*f*) In the University I would not make English literature compulsory for science students, but would make it compulsory for everyone to attend a special class for practical training in the use of the English language.

BOSE, KHUDI RAM.

(i) *English* should be used as the medium of instruction and of examination at every stage (inclusive of the matriculation) in the University course as much in the interest of modern culture and refinement as in that of the conduct of the public business within the Empire.

(ii) (*a*) University matriculates are found to possess a sufficiently fair knowledge of English to put themselves into a position (within a short time of their entrance to the University) to follow and appreciate the lectures in English of their professors. It is a large transition, indeed, from school teaching to college lecturing. But our young undergraduates in the lower college forms readily and rapidly adapt themselves to the exigency of their altered academic situation. Adverse comments as to the shallowness of their knowledge of English, sometimes flung against them at random in the form of crude, sarcastic shafts, by indigenous teachers fresh from their universities are foreign and attributable more to the inexperienced and inefficient teaching than to the dearth of elementary linguistic training of our callow matriculates. It is we unimaginative and unsympathetic teachers that are caught napping more in this business than the tender charges committed to our care.

(*b*) In the first three classes of secondary schools English should be adopted as the chief medium of instruction.

(*c*) There is, undoubtedly, room for improvement in the training in English now being given in our secondary schools. There ought to be on the staff of every secondary school at least three members who can speak and write fairly faultless English.

(*d*) Yes; the practical training in the use of the English language is marked by a more pronounced deficiency in both cases than is that of the study of English literature. This defect may be remedied to an appreciable extent by the adoption of a compulsory conversational and translatory curriculum in English both at the matriculation and the I.A. and I.Sc. stages.

(*e*) Yes; English is the most vulnerable point of our body academic, and the matriculation test should chiefly be in English.

(*f*) *English* should be taught to all students during their University course, even to those whose special curriculum is other than linguistic.

Education in English in the latter case may very profitably be imparted through many an excellent essay and treatise in English forming an integral part of the literature of that special subject.

BOSE, MISS MRINALINI.

(i) Yes; certainly.

(ii) (*a*) At present, the majority of the students may not have it, but I think they can have it if they are given the opportunity, and I think every attempt should be made to improve the teaching of English in secondary schools from the very beginning. The students' power of expression in English should be cultivated. Many students who have a good knowledge of the English language lack the power of expression which is due to want of practice. I think it would be better to have some European head, and, if possible, assistant, masters on the staff of every good high school. The lower classes should be provided with good teachers.

(*b*) As low down as possible.

(*c*) No; for suggestions see (*a*).

(*d*) Yes; I think a large number of Indian students have a good training in the study of English literature and acquire a thorough knowledge of English grammar, etc., but have very little training in the use of the English language.

(*e*) Yes; all the subjects except the second language.

(*f*) Yes.

BOSE, RADHIKANATH.

(i) The question as to whether English or the vernaculars should be the medium of instruction and of examination in our schools and colleges has long been engaging the serious attention of our educational experts, but no satisfactory solution of this difficult problem has yet been arrived at. That the present system of imparting instruction to Indian boys through a foreign tongue is unnatural and educationally unsound and that it is, to a large extent, responsible for the meagre knowledge acquired by the generality of our students will, perhaps, be universally admitted. It is psychologically untenable that a foreign language can be as effective a means of instruction as one's own native tongue. When a student is taught any subject in a language in which he does not *think*, and of which he has not gained complete mastery, he has to make the double effort of mentally translating the words used by the teacher and then of assimilating the information conveyed through them. If, on the other hand, the facts are presented to him in his own vernacular he can readily learn and digest them. Nothing, therefore, can be better calculated to enable our students to assimilate knowledge easily, quickly, and thoroughly than the use of their vernaculars as the media of instruction.

But, though we are fully alive to the disadvantages of the existing system we can not overlook the serious practical difficulties which stand in the way of the adoption of the vernaculars as the vehicle of teaching, especially in the advanced classes of the University. In the first place, all the vernaculars in this presidency are not sufficiently developed to serve as the media of instruction even up to the matriculation standard. It is true that the encouragement of the vernaculars by our University has recently been showing gratifying results in the development of educational and general literature in some of these languages,

but some time must yet elapse before we can expect them to be enriched with suitable text-books in all the higher branches of art and science. Assuming that text-books of a proper kind will soon be forthcoming we have to consider next to what extent they should be made to replace the text-books in English now taught in our educational institutions. In doing this we must remember that the peculiar circumstances of our country render it imperatively necessary for our students to acquire an efficient knowledge of the English language. English is the only actual *lingua franca* in India at present, and is the only unifying modern language; it is our principal, and practically only, means of access to the highest Western learning, and it is the only language which can keep us in touch with the world outside India. A command of the English language is thus indispensable to an Indian student not only for success in public life, but also for acquiring the highest Western culture at an advanced stage of his University career. Now, the difficulty is that if we altogether discontinue the use of English as the medium of instruction in the earlier stages of the University courses the student's knowledge of English is likely to be poorer, so that when he proceeds to the advanced University classes he may not be able to adap himself to the new medium of English to which he must be introduced there. In order, therefore, that students may be trained to cultivate English, as well as their own vernacular, simultaneously, I would suggest that instruction in some of the non-language subjects may be imparted through the vernaculars up to the intermediate stage of the University course while the others will continue to be taught through the medium of English. The selection of these subjects will, of course, depend mainly upon the quality of text-books available in the different vernaculars. I am inclined to believe that if such a course be adopted, and if provision be made for the better teaching of English in our schools and intermediate college classes, students will not be found inadequately prepared, so far as the knowledge of English is concerned, for the advanced work of the degree classes.

(ii) (*a*) and (*c*) During my ten years' experience as a teacher of English in the intermediate college classes I have come across very few students entering the University with an adequate command of English. The large majority of our present-day matriculates find it difficult to follow the lectures delivered in the college classes and, even if they can manage, with the help of their tutors, to understand the subject matter of the lectures, they cannot express their ideas freely in English when required to do so. This difficulty leads them to buy cheap "notes" and "summaries" of the prescribed texts, and to get by heart the answers to all possible questions, with the aim of reproducing them *verbatim* at the time of their examination. Every college professor and every university examiner will bear testimony to the incalculable mischief that is being wrought by our students' indiscriminate use of cram books. How to remedy this crying evil should engage the earnest attention of all those who are interested in, and responsible for, the education of our youths. It cannot be denied that the evil will continue so long as the boys are forced to read and write in an imperfectly acquired tongue. The introduction of the vernaculars, therefore, as the media of instruction and examination in some selected subjects up to the intermediate stage will, doubtless, do away with the necessity, which our students at present feel, of using cram books in these subjects. As for the others, which may still continue to be taught through English, we can only ensure thoroughness of knowledge in them by improving the students' familiarity with the English language. The kind of training now given to our boys in English before their entrance to the University appears to me to be far from satisfactory. In the first place, a large majority of those who are entrusted with the teaching of this subject in the lower classes of our secondary schools have themselves a poor knowledge of the language. Secondly, the system of teaching English now in vogue in these classes is of a mechanical and lifeless character. I think that

if English were taught conversationally by teachers of ability it could be better and more readily learnt by juvenile students. The appalling amount of useless rubbish nowadays forced into young boys' heads under the name of "English grammar" wastes much of their time which could be far more profitably employed in giving them a practical training in the language. Lastly, if we want to make our schoolboys better grounded in the English language the present matriculation system of "no-text" should be discontinued. Boys must be required to read and reread some good specimens of English composition before they can be expected to perform any good composition themselves. The University, under present arrangements, recommends a number of books for study, but students consider it sheer waste of time to make a systematic study of any of these books as they are told that no questions will be set from them in the examination. The University's object in abolishing text-books was, doubtless, to raise the standard, but the result has practically been that our students nowadays generally leave school with a much poorer knowledge of English than what was acquired by an average scholar at the same stage under the old university regulations.

My suggestion, therefore, is that we should demand from our matriculation candidates not only a general knowledge of English to be tested by "unseens", but also a thorough preparation of one or two prescribed texts; for I believe that a scientific study of one or two good text-books serves to make a juvenile student learn a language much better than hurrying over the pages of a dozen recommended books.

(*d*) Yes; I would draw a distinction, both in school and university, between practical training in the use of the English language and training in the study of English literature. That our students in schools and colleges do not receive sufficient practical training at present will be evident from the stilted style of their letters and essays. I would recommend the adoption of the following measures for the removal of this defect:—

(A) The employment of teachers of as superior a quality as possible for teaching English in secondary schools.

(B) The introduction of conversation classes in English in all schools.

(C) The inclusion of "translation from vernacular into English" in the course prescribed for the intermediate examinations in English.

(D) The encouragement of independent essay writing by giving it a place in the routine of work of every school and college; and the penalising of all cram work in this subject.

(*e*) No; I have already stated my view that some of the subjects in the matriculation syllabus should be taught through the medium of the vernaculars, and the rest, as they are being done at present, through the English language. The medium of examination in a subject should, naturally, be the same as that through which instruction is imparted in that particular subject.

(*f*) I think that English should be taught to all students up to the B.A. and B.Sc. stage. B.Sc. students need not, of course, be given any training in the study of English literature. The syllabus to be prescribed for them in English should include only essay writing, paraphrasing, and the study of some select modern prose works which may be best suited to teach the spoken language, rather than to serve as specimens of supreme literary merit.

BROWN, Rev. A. E.

(i) No.

(iii) English alone should be taught through the medium of English, and all other subjects should be taught through the medium of the vernaculars.

At the same time, it is recognised that, in some cases, foreigners will be compelled to deliver their lectures in English, especially in the higher stages, but, even in such

cases, the student should have the option of answering the questions in the examination in the vernacular. The difficulty of assimilating ideas through a foreign language is not nearly so great as that of expressing one's own ideas through that foreign language.

We also recognise that a *working* knowledge of English is a practical necessity for every educated Indian. We consider, therefore, that there should be a compulsory test of English at every stage throughout the University course. The preparation for this compulsory course should be of a tutorial nature; students should be encouraged to read good *modern* English, the more the better, and to write frequent essays.

The study of English literature would be a separate optional subject for the I.A. and B.A.

BROWN, ARTHUR.

(i) I do not see any alternative; English is throughout India the language of Government, of the law courts, of commerce. Moreover, not one vernacular, but hundreds, exist. All the text-books of importance are written in a European language, and nearly all contributions to modern knowledge are made outside India. If the vernacular be the medium of instruction and of examination the student would be virtually cut off from every chance of access to the fountain of Western learning. He would never read an English book, but would compel his teacher to confine himself to boiling down English authorities in vernacular notes. To my mind, English as a medium of instruction necessarily follows the adoption of the English method of education. I quite realise the serious disabilities put upon the Indian youth by his medium of instruction being a foreign tongue, but these difficulties cannot be avoided.

(ii) (*a*) The answer is decidedly in the negative.

(*b*) English should be the entire medium of instruction for these students. The first essential for a student should be a knowledge of colloquial English, and it should be the medium of instruction as early, in secondary schools, as possible. In wealthy Indian families children are very generally not allowed to speak the vernacular, but are placed under English governesses as soon as they can speak. In secondary schools the only limit set to English being the medium of instruction should be the possibility of getting teachers. And, in whatever class English commences as the medium, English composition, dictation, and conversation should be taught throughout the school.

(*c*) No; the teaching and teachers are bad. The prospects of teachers should be improved, and the standard required of those teaching English, at least that of B.A. honours in English. Moreover, they should have had a training as teachers.

(*d*) Most decidedly; the student should know colloquial English thoroughly before commencing his University course. English literature should be an optional subject of study at college. No training in English literature is either necessary or practical in schools.

(*e*) Yes.

CAMERON, M. B.

(i) English should be used as the medium of instruction and examination at every stage above the matriculation in the University course. Apart from the fact that this is a requirement forced upon us by the practical necessities of the case, and by the demands of all the careers open to the more highly edu-

CAMERON, M. B.—*contd.*

cated in India, there is the supreme advantage that we are here insisting upon a qualification which opens to the student all of the best that has been, or is being, done and said and thought in the world. English is for the Indian student what Latin was for the student of the West not so very long ago.

(ii) (*a*) I have already indicated in my notes on question 2 that one of the main causes of inadequate attainment in university education in India is the weakness of the substructure.

I do not think that, as a rule, University students have, on their entrance to the University, an adequate command of English. Much depends, of course, upon the home from which the student comes. If he comes from an educated home, especially from one of those few where both fathers and mothers are educated to the stage of reading and speaking English, there is no inadequacy at all. There are such students and though still few, their number is gradually increasing. I can also believe that the general average apprehension of English is considerably higher in Calcutta than it is in upcountry and that, as I have heard it put, proficiency in English varies inversely with the square of the distance from the larger seaports. This, however, is to speak of influences which are not directly under control and which, though powerful, can be improved only very slowly. So far as proficiency in English is the direct outcome of the teacher's efforts all that can be said is that it suffers seriously from the general inadequacy of the training which the pupils receive in the secondary schools, and from the various circumstances which there seriously militate against the attainment of any high standard of success. Concentrating upon the points where direct effort at reform is likely to be most immediately and thoroughly effective I should say, first, that not until the secondary schools are supplied for all their classes with more highly qualified and better-trained teachers can much improvement be looked for with any confidence, and, secondly, that every advance in the spread of primary education will have a powerfully reactive effect in quickening secondary education.

(*b*) My experience of schools is not sufficiently fresh to enable me to dogmatise upon when exactly the use of English as a medium of instruction should begin. I am inclined to think that at any rate English should begin to be taught at such a point in the school career that it can be mainly relied on as a means of instruction during the last two years of the school course—the vernacular being only called upon in cases of difficulty when there is doubt as to the real apprehension of what is being taught.

(*c*) In the earlier stages the direct method should be almost exclusively used, and all through the school course the practical training in the use of the English language should occupy the foremost place. In this part of the country the preparation in English for entrance to the University is defined by the requirements of two examinations—the school leaving certificate and the matriculation. In the former there are no prescribed text-books, and an oral test is insisted on. In the latter, text books are prescribed, along with a range of recommended supplementary reading and there is no oral test. The lack of the oral test is a serious disadvantage but the practical difficulties in the way seem insuperable with so many candidates and so many centres. As regards prescribed text books, or no prescribed text-books, I am inclined to the view that the best results would perhaps be secured by a strictly limited amount of text-book study, along with more insistence than the University makes at present on a general acquaintance with all of the books recommended for supplementary reading.

(*d*) I have implied above that a distinction between practical training in the use of English and training in the study of English literature can, and should, be drawn and that in the schools the emphasis should fall at first entirely on the former, that it should all through the school course fall mainly there, and

that only in the last year should a strictly limited amount of the latter be attempted.

I should like to be able in the colleges to carry on this development by giving up altogether definite attempts at practical training in the use of English and leaving it to be continued only incidentally when carrying on other studies through the medium of English. For one thing, the main business of the college is sadly interfered with when the attention is distracted from the teaching of a subject to drill in the use of the instrumental language and, again, with the larger classes of the college and. in general, the greater distance between teacher and taught, the methods of practical training become very difficult to carry on.

The study of English literature would thus be a distinct subject in the college and the case for making it compulsory would be much weaker. It would more properly seem to be an option on a level with other options so that only those would take it up who were specially qualified to do so, or had a special taste that way. As long, however, as the schools can do no better than they are doing in the way of preparation in English, and as long as our students are as immature in mind as they are at present, this is clearly impracticable in the first two years of the University course. The intermediate classes in English may not be of much use as a training in the appreciation of literature, but they have their value as further having in the use of English, in the critical use of language as the expression of thought, and, above all, as an invaluble indispensable outlook into that strange western world from which are pouring the streams of influence that are troubling the placid stillness of the East.

The science students of the Allahabad University give up the study of English literature after they pass the intermediate examination, but in their degree examination they have still a qualifying paper in English and an essay in English. The training for their test is done, as a rule, in two or three periods a week during their two years' course of study in their science subjects.

I once ventured to move in the direction of making the study of English literature optional for the B.A. degree and was at first not a little surprised to find that the strongest opposition came from the Indian members of the Senate. On further consideration and reflection upon my experience I am inclined, however, to agree with them that much more would have been lost than gained by such a change. Even at the intermediate stage the student still lives in so narrow a world, he has got so little training in the use of language to express his thoughts, and he has so little conception of what makes for value in literature that he simply cannot afford to give up the study of English literature. I rather think the science student in Allahabad is paying a price for his science in escaping altogether the classes engaged in the study of English texts.

I come, therefore, to the conclusion that, while it would be very desirable and valuable to recognise in the college more adequately than we do the distinction between the two ways of studying English which are suggested in the question, for the present it cannot be done until more matured, better prepared students enter the University, that is to say, until the secondary schools are improved. Merely to raise the age of entrance would do more harm than good. The colleges are doing better for the lads of seventeen and eighteen than the present schools can do.

(*e*) It seems to me of considerable importance that the matriculation examination in all subjects should be conducted in English and that there should be steady pressure towards increasing stringency in this respect. If we take the matriculation simply and solely for what it is, *i.e.*, a sort of guarantee that the student is sufficiently qualified to carry on university studies in English, this requirement will be seen to be reasonable enough. It is only when the matriculation is taken for what it was never designed to be, *i.e.*, as a

qualifying examination for Government employment or as an absolute measure of mental capacity, that this insistence on specially good work in English seems a little difficult to justify.

(*f*) It may be gathered from what I have said above that, under present conditions, I should like to see English taught to all students during their University course as far as the degree. Up to the intermediate I see no reason to differentiate the teaching of English but, after the intermediate, science students should have a strictly limited course. Say, for example, one prescribed volume of modern essays—with training in expression and the writing of essays—the teaching to occupy not more than three periods per week, but to be given by the best teaching power available for English.

CHAKI, Rai Sahib NRITYA GOPAL.

(i) Yes.

(ii) (*a*) No.

(*b*) In high English schools there should be regular text-books in English, at least in the first four classes. The medium of instruction in these classes should be, as far as practicable, English.

In middle English schools the standard should be higher than at present.

(*c*) No; the general knowledge in English is now on the average far below the standard of that which the students had who passed the entrance examination under the old regulations:

The improvement I would suggest is that there should be regular conversation classes where students will be required to learn how to speak in English, and there should be an examination to test it. It ought to be compulsory on students to pass in order to get a promotion to the upper class. Experienced teachers should be in charge of these classes.

(*d*) No; in the University the training in the study of English literature should always be in the hands of professors of high merit or specially trained.

(*e*) As far as it is practicable the matriculation examination in English and history should be conducted in English; in other subjects some questions should be set in such a manner that students will have to answer them in English. Thus, the knowledge in English language and literature can very well be tested.

(*f*) For students whose general course of study may be other than linguistic English should be taught in such a standard that students may follow the course of study if the medium of instruction in that be English.

CHAKRAVARTI, BRAJALAL.

(i) and (iii) It is certainly desirable that the vernacular of the province should be made the medium of instruction. Up to now the intellectual progress of the people has been much hampered by the barrier of language. The primary standard should be taught through the vernacular up to the tenth year. It ought to be a simple course of reading, writing, and arithmetic, with moral lessons culled from the traditions of the people, and the simple principles of hygiene. The next, or the school standard, covering six years, should be taught through the vernacular, with English as an optional subject. The next higher standard, or the college course of four years, with one final examination at the end, should be taught through the medium of the vernacular, with English as an optional subject. It is to be a simpler course than the present standard for graduation, and ought not to have any bifurcation as that is inconsistent with the requirements of a sound liberal education. The bifurcations would properly come in at the next or the post-graduate stage.

CHAKRAVARTI, CHINTAHARAN—CHAKRAVARTI, CHINTA HARAN—CHAKRAVARTI, Rai MON MOHAN, Bahadur.

CHAKRAVARTI, CHINTAHARAN.

(i) and (iii) All the subjects that are taught in secondary schools should be taught through the medium of the vernacular, and English should be taught as a compulsory second language.

Only those teachers who have a command of English, correct pronunciation of English sounds, and who have received a special training in the method of teaching that language should be employed in teaching English. In the lowest forms English should be taught by the "direct method" and higher up by conversational and interrogative methods. Thus, students should be led to express themselves in simple English.

The matriculation examination in all subjects except English should be conducted in the vernacular.

For the intermediate examination such subjects as logic, physics, history, and mathematics should be taught through the medium of the vernacular, and Indian history throughout the whole University course should be taught through the same medium.

CHAKRAVARTI, CHINTA HARAN.

(i) Yes.

(ii) (*a*) No.

(*b*) English should be the medium of instruction in secondary schools for students preparing for the matriculation examination in teaching all the subjects except the vernacular and classical languages. Free use of the vernacular should, however, be made to explain such difficulties as cannot be made sufficiently intelligible to students through the foreign medium (English). Wherever necessary, the vernacular should be used to ensure an accurate understanding of the subject.

(*c*) The teaching of English in high schools should be improved by:—

(A) The introduction of the direct method of teaching a foreign language.
(B) More stress on English conversation, composition, and translation.
(C) Imitation of the correct models of speech.
(D) Special study of a standard work in the highest class.
(E) An oral test in every class examination at the end of the school year to ascertain the student's power of speaking English correctly and fluently.

At present students in schools are not so much acquainted with the spoken language as with the written language. They should also be trained to take notes of the main points of their teacher's lessons as a preparation for similar note-taking in the college classes. The employment of trained teachers (B.T.'s and L.T.'s) to teach English according to the modern improved methods in high schools is extremely desirable.

(*d*) Yes.

(*e*) Yes.

(*f*) English should be a compulsory subject up to the B.A. and B.Sc. examinations. Nothing more than a general knowledge of English should be required of students who take up the science course.

CHAKRAVARTI, Rai MON MOHAN, Bahadur.

(i) English is quite foreign to Bengali boys, and instruction through English is a heavy strain on them. But it has some decided merits. So long as India is connected with Great Britain a knowledge of English is necessary and should be compulsory. Furthermore, it is through this language that the Indian student

can quickly and intelligently tap the indispensable store of Western learning. Good vernacular works are also rare and in technical subjects are less intelligible. Consequently, for years to come I prefer that English should be taught up to the matriculation. In Eastern Bengal, however, the pronunciation is much distorted and requires special attention. Boys also should be made to speak in English to a greater extent.

After matriculation English need not be made compulsory for science students. Most of the students have then acquired sufficient English to read the books or to follow the lecturers, and to add English would be to throw an unnecessary burden on the boys. Similarly, in the B.Sc. and M.Sc., I would at present keep English compulsory in the I.A., but would make it optional in the B.A. and M.A. for those students who go in for other subjects such as philosophy, history, or classics.

CHAKRAVARTY, ANUKULCHANDRA.

(i) English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course.

(ii) (*a*) I think that many students on their entrance to the University do not possess an adequate command of English. If it happens that there are some students who cannot quite follow a lecturer they should be considered unfit for the class. As the business in all departments of administration is conducted in English, and as all books of knowledge, scientific, literary, philosophical, etc., are in English, and as there is no other *one* language wherein one can find all the up-to-date information of the world and whereby one can exchange one's thoughts with the people of the outside world, all Indian students ought to have a competent knowledge of English. If Bengali students do not have a command of the English tongue they will fall behind other nations whose spoken language is English, and the object of the enemies of the advancement of the Bengalis in the scale of nations which is to discourage the attainment of knowledge in English will thus be easily fulfilled.

(*b*) The number of classes in a secondary school should not be more than eight. In the lower classes, up to class IV, Bengali should be used as the medium of instruction. In the middle and higher classes all the subjects—history, geography, science, etc.—should be taught with books written in English, but lessons may be given in Bengali whenever necessary. Translation from English into the vernacular and *vice versa* should be made compulsory in all classes, for translation and retranslation are the most effective way to master a foreign language.

(*c*) The training now given in English before entrance to the University is not what is desirable. The standard should be raised, and boys should be taught *viva voce* and by means of exercises, translation, retranslation, original composition, etc., without making them get by rote books which they do not thoroughly understand. Nowadays most of the text-books are selected on recommendation. This should not be the case. Teachers should be allowed to select the books they will teach, and the teaching staff should be very carefully selected.

(*d*) There is a distinction, I think. A language may be mastered by hearing people speak, but a knowledge of the literature cannot be acquired without thorough and careful study.

(*e*) Yes; except Bengali and Sanskrit.

(*f*) If the standard of the matriculation be raised, that is, made equal to the present I.A. and I.Sc., and the I.A. and I.Sc. examinations be dispensed with, which I think is the desirable course, English should be made optional for those who take the science course, and compulsory for those who take the linguistic

course. The university course should be divided into arts and science. Then, again, arts into linguistic, historical, philosophical, economical, etc., and science into mathematical, chemical, physical, botanical, etc., subjects. In arts subjects some books of English literature should be prescribed to enable students to acquire further a knowledge of English.

CHAKRAVARTY, NIRANJAN PRASAD.

(i) It is not essential that English should be used as a medium of instruction or of examination in all cases. It may be used as a medium of instruction and examination only when it is studied as literature, but, in all other cases, students should be given perfect liberty to use their own vernacular or English according to their option.

(ii) (*b*) In secondary schools instruction should be imparted as much as possible in the vernaculars, in which case the teaching will probably be more impressive, and will help students clearly to understand the subjects. The primary thing that should be done in secondary schools is to help students to have a thorough elementary knowledge of the subjects taught to them, which is sure to result in making the foundation strong.

At present, the University expects a student of the matriculation class to have a fair knowledge of composition and translation of vernacular passages into English. Several books are indeed recommended in order to help them in the improvement of their style, but very few of the students know what these books contain. I would like to suggest, therefore, that a few easy passages (not exceeding twenty marks) should be set from these books, which would encourage students to go through them and would thus greatly add to their stock of knowledge in English.

CHANDA, The Hon'ble Mr. KAMINI KUMAR.

(ii) (*a*) No; except for post-graduate examinations.
(*c*) No; I would have English as a compulsory second language.
(*d*) Yes; I would have practical training in the English language in the school, and would leave training in literature for the college.
(*e*) No.
(*f*) I would have English for study only, but not for examination.

CHATTERJEE, The Hon'ble Mr. A. C.

(i) Yes.

(ii) (*a*) Not at present.
(*b*) In four standards (from the matriculation downwards) the text-books, except in languages, should be in English, but the actual teaching should be in Bengali.
(*c*) I am not satisfied; English should be taught as a language, and there should be greater practice in speaking, writing and rapid reading.
(*d*) Yes; at the University. In school English literature should not be taught; training should be confined to the English language as advocated in (*c*).
(*e*) Yes; except in languages.
(*f*) If a sufficiently high standard in the English language is exacted at the matriculation it need no longer be taught as a separate subject to "non-linguistic" students, but all text-books should be in English and in each subject the examination should include an essay or composition paper. In written and oral examinations marks should be given or deducted for power or defect in expression in English.

CHATTERJEE, Rai LALITMOHAN, Bahadur.

(i) I think English should be used as the medium of instruction and examination at every stage above the matriculation in the University course.

My reasons for so thinking are as follows :—

(A) In a country like India, in the present circumstances, a common medium of expression is very desirable. English will be such a medium. It will bring the various provinces into closer touch. Therefore, everything should be done to facilitate the study of English.

(B) The vernaculars of India are being enriched by the study of English literature. This is particularly true of the Bengali language and literature. To discourage the study of English at this stage will arrest this Renaissance.

(C) A knowledge of English is, and will continue to be, a great help to Indians for making their way in the world.

(D) Advanced books in all subjects do not exist in Bengali now, and cannot be prepared soon.

(E) For the further culture and improvement of the Bengali language I would advocate the starting of a university extension movement in which comparatively advanced teaching in a variety of subjects should be given *only through the medium of Bengali.* For this purpose the services of the best teachers of the University may be utilised.

(ii) (*a*) It is true that students, on their entrance to the University, have not an adequate command of English. But the remedy lies in improving the teaching of English in schools. Moreover, the real difficulty of the college student in studying subjects other than English is due not so much to his poor knowledge of English, as to his lack of mental training. For instance, it is generally found that a student who cannot express his thoughts in English will hardly do better in Bengali.

(*b*) For secondary schools, however, I would advocate Bengali as an *optional* medium of instruction and examination (with English as a compulsory second language) in all classes except the highest.

(*c*) English is at present taught in secondary schools by teachers who cannot be expected to teach it properly. It should be taught by the direct method. It should be taught as a language. The speaking of correct English, with good pronunciation and the cultivation of a simple and idiomatic style of writing, should be the chief aim.

(*d*) In the schools and in the intermediate stage in colleges English should be taught chiefly as a language ; in the higher stages chiefly as literature.

(*e*) Yes.

(*f*) I think English should be taught to all students during their University course up to the bachelor stage. For students whose general course of study may be other than linguistic I would suggest a common course in English up to the pass bachelor degree.

CHATTERJEE, P. K.

Yes ; English should be the medium of instruction and examination for all subjects prescribed for the University course except for such classical languages as Sanskrit and Arabic and the vernaculars. Suitable instruction can be imparted in the latter subjects, and examinations held, without the help of English.

(ii) (*a*) It is a matter of common experience that a fairly large number of students do not possess an adequate command of English when they join the University. The result is that much progress cannot be made by lecturers in the class as

a good part of their time is spent in explaining the language to these students. At the same time, students find it very difficult to express their ideas clearly in examinations.

(*b*) In the higher classes of secondary schools also English should be the medium of instruction for all subjects except for the classical languages and vernaculars, as I have explained above.

(*c*) It is not quite satisfactory; but the fault does not lie with the school authorities alone. In the matriculation examination the University tests the knowledge of students mainly in grammar and composition so far as English is concerned. Consequently, teachers in secondary schools generally try to coach students in these branches of the subject only. This is not enough. The present method should be supplemented by prescribing for matriculation candidates a systematic study of some selected text-books. At the same time, students are likely to derive much benefit if teachers hold regular conversation classes in English with them.

(*d*) Practical training in the use of the English language should supplement, and not supplant, training in the study of English literature, whether at school or in the University.

(*e*) Yes; except in the classical languages and vernaculars.

(*f*) Yes; up to the intermediate standard all students should be taught English in order to enable them to understand scientific and other books. After that, students going up for scientific or technological training need not continue it directly.

CHATTERJEE, PRAMATHANATH.

(i) and (ii) For certain classes of students who have not been able to acquire a sufficient knowledge of English, and are not able to follow lectures in colleges, but who are otherwise intelligent and are capable of receiving a higher education, provision should be made by the University to give them a higher training in the vernaculars of the country. There is no reason why a deserving and capable student should be altogether debarred from university education simply because he has not learnt English, or is not so well conversant with English, as to be able to receive instruction through the medium of that language. I have particularly in view those students who pursue their studies in first-grade training schools in mathematics, history, science, and psychology in their own vernaculars, but who are not permitted to join colleges for higher training simply on account of their ignorance of the English language. So far as actual knowledge is concerned an ex-student of a first-grade training school is not, in any case, inferior to an I.A. of the Calcutta University. On the other hand, I am inclined to think that, so far as intellectual attainments are concerned, he is far better equipped for practical work in life than an ordinary I.A. of the Calcutta University. It will be an easy thing for these students to pass the B.A. examination with distinction if only they were permitted to answer the questions in their own vernaculars, instead of in English, and if a vernacular subject were substituted for English.

Then, again, there are those students who cannot pass the matriculation or I.A. examination because of their deficiency in the English language, but who are strong in other subjects. When, after repeated attempts, some of them succeed in passing the English test they climb up the steps of the ladder with remarkable quickness and come out first-class B.Sc.'s or M.Sc.'s. If, however, they fail to get through the test in English they are for ever doomed to a life of poverty and mediocrity. These students, also, would not be debarred from University education if only a vernacular language were substituted for English in their examinations.

CHATTERJEE, PRAMATHANATH—*contd.*

If the intellectual resources of the country are to be fully utilised it will be incumbent on the University to create a type of schools and colleges on a vernacular basis, *with English as a second language and an optional subject.*

My scheme, which is in the rough, will be as follows :—

All high English schools in Bengal should be divided into two classes.

Firstly, high English schools on a vernacular basis, where English may be taught as a second language and an optional subject, and where the medium of instruction and of examination will be in the vernaculars of the country up to the highest class.

Secondly, high English schools on an English basis, in which English will be taught as a compulsory subject of study throughout the school, and where the vernacular may be the medium of instruction and of examination up to the end of the primary department—English being taught as a compulsory second language. As regards the medium of instruction in other classes of the school it may be a mixed system, both the vernacular and English being used to suit the capacities of the students ; but the text-books prescribed for the school should be in English throughout with the exception of those for the vernacular or a classical language.

It might also be possible to combine these two types of schools in one single high English school if the necessary arrangements could be made for the efficient teaching of the two classes of pupils mentioned above.

Colleges for general education should, similarly, be divided into colleges on a vernacular basis and colleges on an English basis.

In colleges on a vernacular basis the medium of instruction and of examination should be in the vernaculars of the country—English being taught as a second language and an optional subject. These colleges will be intended for those who come from high English schools on a vernacular basis, or from training schools, or who get plucked in English in the matriculation examination from high English schools on an English basis, but who desire to continue their studies in colleges. The college course may extend up to the B.A., or even up to the M.A., standard.

As for colleges for professional training, such as law, medicine, engineering, agriculture, commerce, technology, and teaching, the medium of instruction *should continue to be English,* as before, but *schools for professional training* should be established in suitable centres all over the country where the medium of instruction and of examination should, as far as possible, be in the vernaculars of the country, and *these schools* will be open to those whose education has been conducted on a vernacular basis in schools and colleges.

For the very highest training in medicine, engineering, science, and other technical subjects suitable vernacular text-books will not be available, at least for some time to come, and a certain proportion of professors for these colleges will have to be imported from Europe. The professional schools, on the other hand, may be manned by expert Indian professors, who will be expected to impart instruction through the medium of the vernaculars of the country.

A question will, naturally, arise here as to the relation between the higher vernacular education and the public services. Vernacular education will, surely, be at a discount if all Government posts are monopolised by English-knowing graduates; but this need not be the case if proper consideration is shown to these men by Government. It is true that work in public offices is now, for the most part, conducted in English ; but this has to be done, I think, chiefly for the benefit of the heads of different departments who are mostly Europeans, and whose acquaintance with the vernaculars of the country is oftentimes slight and superficial. I do not for a moment think that the administration of the country (at least the district administration) will suffer if business in courts and public offices were conducted in the vernaculars of the country provided the heads

of different departments were well acquainted with the language of the country. I am, on the other hand, inclined to think that in several departments, such as police, registration, postal, judicial, and education (district administration), business may be better conducted in the vernaculars of the country. This will save much time and labour and will afford greater facility of work to Indian clerks and officers—even the very best of whom find it difficult to express their ideas accurately in correct English.

It must not be forgotten, at the same time, that English is the language of the rulers of the country and that the Government of India and the provincial Governments issue all their communications in English. It is also the language of the educated people of India. Far be it from me to discourage the study of English, for which there is a growing demand in the country. On the contrary, I firmly believe that if Indians were to take a larger share in the administration of the country they must learn the English language thoroughly and efficiently. My proposal, if given effect to, will not in any way affect the study of the English language in our public schools and colleges. The English language has now come to be recognised as a power in the country, and has struck its root too deep into the soil to be dislodged by any scheme of mine. I am only pleading for those intelligent and deserving students (there are thousands of them in the country) who cannot either afford to pay for an English education, or cannot acquire sufficient knowledge of English to be able to continue their studies in colleges. I am also advocating the cause of vernacular education and asking for the proper cultivation of vernacular literature in the country. I know perfectly well that a vernacular degree will not lead to the highest appointment under Government or the highest training in professional colleges; but it will do one thing. It will give students of vernacular schools access to places and positions which were closed to them before, and will thus immensely better their prospects in life. This fact alone, irrespective of other considerations, will, I think, sufficiently justify the creation of vernacular high English schools and colleges.

I can also safely predict that, even though English be an optional subject in vernacular schools and colleges, a large majority of pupils, if not all, will learn English as a second language and will be able to employ it for all ordinary purposes of life.

CHATTERJEE, RAMANANDA.

(i) No.

(ii) (*a*) University students do not generally have, on their entrance to the University, an adequate command of English, though many of them have it.

(*b*) It should be used only for teaching English.

(*c*) No; the best teachers of English in a school should teach the lowest classes where English is taught.

Better methods of teaching should be adopted. The direct method is good. At first English should not be taught by the use of grammars, but by the reading of as much easy literature as possible.

(*d*) I would not, except for those who, or whose parents, have decided that their aim is to know English simply for the purposes of business.

(*f*) All should learn English up to the intermediate standard. Above that stage those whose general course of study is not linguistic need not be taught English.

(iii) Professors should be perfectly free to use the vernacular of students as the medium of instruction in any or all subjects at all stages above the matriculation in the University course. They may, of course, freely use any English technical terms for which equivalents do not exist in the vernacular or for which easily understood equivalents cannot be coined. I have known successful teaching of B.A.

mathematics and B.A. physics and chemistry and all Sanskrit courses through the medium of Bengali.

As for the medium of examinations it is difficult to lay down how far we can proceed just now. In the subject ot Sanskrit all questions, except those intended to test the examinee's power of writing correct Sanskrit, should be allowed to be answered in Bengali. Perhaps it may be generally said that Bengali may be used as the medium of examination in almost all subjects up to the intermediate standard.

In order to test how far Bengali can be used both as the medium of instruction and examination the University may allow a parallel line of examinations to be held in Bengali up to the highest standard, though success in such examinations will not ordinarily qualify one for the public services. I think it is a great hardship that the gate of knowledge should remain shut against those who know only their vernacular but cannot, for some reason or other, acquire an adequate knowledge of a foreign tongue. No free civilised nation labours under this disadvantage.

The parallel line of Bengali examinations I have proposed would suit many women students very well. The University should institute such examinations at least for them ; for most of them do not seek posts in the public services.

My idea is that our students should learn English for culture, for purposes of interprovincial and international commerce and communication, for administrative purposes, for the political unification of India and interprovincial exchange of ideas, for keeping touch in all respects with the outer world, and for the acquisition of the latest modern knowledge. But, for the perfect assimilation of knowledge in childhood and youth, for the thorough and rapid diffusion of knowledge among all ranks and classes of the population, for removing the recent, but growing, intellectual and cultural gulf between our men and women and between the classes and the masses. and for stimulating originality in thought and its expression, and in scientific and artistic achievement in the largest possible number of persons the use of the vernaculars in all grades of University education is indispensably necessary. All objections have force only temporarily ; for the most highly developed modern languages and literatures were at first no better than Bengali. In their case development was obtained by use ; and it will be obtained in our case, too, in the same way.

CHATTERJEE, SANTOSH KUMAR.

i) The object of true education is to form character and develop the power of reasoning, to create in the mind of students the habit of thinking for themselves, and so to help them in the process of self-realisation. There can be, therefore, no real education unless students are taught in a language in which they can think for themselves. And this is the reason why the present system of University education in this country has an air of unreality about it. Students in the schools and colleges cannot be easily made to feel that what they learn in the classes may have any practical use for them in their daily lives.

University education in this country has had thus far to labour under great difficulties caused specially by the necessity of transmitting an alien culture through the medium of a foreign tongue. Nevertheless, the system has, on the whole, proved a success. This is due not to any special merit of the scheme itself, but rather to the receptive quality of the Indian intellect and its peculiar training. For a long time past, owing to the diversity of spoken languages in this country, it has been found necessary to have a common medium of communication among the cultivated people of the various provinces. Sanskrit thus came to occupy in Hindu India the position of Latin in mediæval Europe. With the advent of the Muhammadans in India Persian became the court language of a

large portion of the country. It was also the language of business. So Hindus and Muhammadans alike found it to their interest to cultivate the Persian language and literature in order to get on in life. In this way Muhammadan culture spread easily and naturally through the medium of the Persian language. When the British power was established in this country it was felt to be equally necessary for the people to cultivate the language and literature of the dominant race. It may be of interest to note here that English education was first introduced into Bengal by the leaders of Hindu society itself and that Government was, later on induced to support this movement from a consideration of its expediency. Learning the English language and literature was the object originally kept in view. And so it was that the new education came to be imparted from the very beginning through the medium of English itself. This system has, thus far, lingered on through mental inertia.

One great disadvantage of the present system is that, owing to the difficulty caused by the necessity of having to learn everything through the medium of English, students of average quality, whether in the schools or in the colleges, learn nothing very well. In intellectual capacity or zeal for knowledge Indian students are admittedly not inferior to the students of any race or nationality in any part of the world. And, yet, owing to this unnatural system, Indian students are not as well grounded in the various subjects of study as are the students of the same age elsewhere when they leave school or college. All experienced Indian teachers realise that when a lecture is given in English, even to the college classes, they are usually confronted with vacant looks from the benches; but if, and as soon as, the same teacher gives an exposition in the vernacular tongue the eyes of the students beam with lively intelligence and every word is followed with close attention.

It is now for the Commission to consider in all seriousness whether this obsolete system should still be continued, whether, in fact, it is possible for students to assimilate knowledge of the sciences and the arts when presented to them in a foreign garb. The Calcutta University has now to undertake the new rôle of stimulating the intellect and developing the creative faculty of the rising generation in Bengal. Is it reasonable to expect that they will grow in self-reliance and in habits of independent judgment if from the very beginning of their student career they have to learn things in a language in which they can never conceivably think at all? I am, therefore, strongly of opinion that Bengali should be the medium of instruction not merely in the school, but also in the first two years' course in the college as well.

(iii) I would suggest the following scheme for the consideration of the Commission:—

(*A*) In secondary schools Bengali should be the medium of instruction for all subjects, except English, up to the matriculation class. English must be a compulsory second language, and is to be taught from the very beginning by specially trained teachers who speak and write easy and simple English fluently and correctly. In the higher classes of the school English is to be studied not merely as a language, but also as literature. If good Bengali works are not available as text-books in any of the subjects English books may be used but, in any case, the answers at the University matriculation examination must be given in Bengali. The substitution of Bengali for English as a medium of instruction will considerably relieve the strain on the mental energies of students, and the following subjects may be made compulsory in secondary schools:—

(1) Histories of India and of England.
(2) Geography and elementary physical geography.
(3) Elements of physics and chemistry.

(*B*) In the colleges of group (A).—Matriculates brought up on the system stated above will, on their entrance to colleges, continue to study the various subjects, except English, through the medium of Bengali up to the intermediate

course. As soon as the success of the scheme is proved by practical experience it may be extended up to the B.A. standard as well.

In the collegiate classes students should be encouraged to read original books in English, as well as in Bengali, wherever books of the latter class become available. In the intermediate standard the course of compulsory subjects of study should be expanded so as to include most of the important subjects which at present are prescribed as alternative subjects.

It must be observed, however, that a good knowledge of English, both as language and literature, should be considered as an indispensable condition of collegiate education in Bengal, as well as in the rest of India. For it is through their mastery of English alone that Indian students will have access to the rich treasure of Western wisdom and culture. If English is taught throughout in the schools and colleges by efficient teachers it may be reasonably hoped that the knowledge of English will not deteriorate among students trained on the new system.

CHATTERJEE, Rai Bahadur SARAT CHANDRA.

(i) Yes.

(ii) (*a*) Not now.

(*b*) In four standards, from the matriculation downwards, the text-books (except in languages) should be in English, though the actual teaching may be in the vernacular languages.

(*c*) No ; English should be taught, and with special care, as a language so that students may become proficient in speaking and writing it correctly and with readiness.

(*d*) Yes.

(*e*) Yes ; except in languages.

(*f*) Yes ; the standard of teaching English is not sufficiently high in the matriculation to enable the student to speak and write English readily and correctly and to give him a general knowledge of English literature and, in that case, English should be taught as a language only.

CHATTERJEE, SUNITI KUMAR.

(i) The study of English is at present necessary, firstly, for political reasons, and, secondly, because it is the easily available vehicle of higher education. The acquirement of English on the part of an Indian student, however, should be regarded only as a means to an end, and not the end itself, even in the case of professed students of English literature ; English studies should not be regarded as the be-all and end-all of education.

For the present, English may be retained as the medium of higher collegiate education, but the University should lend its support to all efforts to develop the vernaculars with the object of making them take the place of English. This should be the ideal and guiding principle for the University. The University can at once recommend the use of the vernaculars as the medium of instruction for all subjects, except English for the intermediate courses, and for certain subjects (science, history, philosophy) in the B.A. and B.Sc. courses, besides making the vernacular the medium of instruction, as well as of examination, for the matriculation. The University can help the vernaculars a great deal by encouraging the compilation and translation of standard books on various philosophical and technical subjects, and by recommending them as text-books, and by appointing committees to find out scientific and technical terms (in collaboration with learned societies like the *Bangiya Sahitya Parishad*), and recommending the adoption and use of such terms by professors lecturing through the medium of the vernaculars.

CHATTERJEE, SUNITI KUMAR—*contd.*—CHATTERJI, MOHINI MOHAN—CHAUDHURI, The Hon'ble Justice Sir ASUTOSH.

(ii) (*a*) Students when they join the University are, in many cases, insufficiently equipped in their knowledge of English mainly because of the following:—

(A) They have to waste their time and energy a great deal in learning things through English before they have a working knowledge of the language. If they are taught through the vernaculars they would learn quicker and better, and would have more time for the study of English.

(B) Owing to lack of funds most schools cannot provide teachers properly qualified to teach English.

(C) Under the present system it has been possible for boys to pass the matriculation with only a little knowledge of English grammar and composition. Two papers on prescribed texts and a third paper on grammar and composition will do away with this possibility.

(D) Students seldom, or never, have any opportunity of exercising their knowledge of English in conversation in that language. Lack of good libraries of books in English, suitable for boys in most schools, prevents them from acquiring a taste for English reading.

(*b*) English can immediately be replaced by the more advanced vernaculars (like Bengali and Hindi) right up to the highest class. But English as a compulsory second language should be taught more carefully. This will make students better grounded in English, as well as in other subjects.

(*c*) No; by improving the pay and prospects of teachers—which would attract better qualified men—and by making each school have a good library for the use of boys.

(*d*) Yes; in schools only; classes may be held in schools to impart a practical knowledge of conversational English by qualified teachers.

(*e*) No; except in the English papers alone.

(*f*) A working knowledge of English being ensured by a raised standard for the matriculation and intermediate examinations English as a compulsory subject of study in the B.A. course may be abolished.

The ideal which an Indian university should have before it is the ultimate replacement of English by the vernaculars (one vernacular for one province) as the medium of the highest instruction.

CHATTERJI, MOHINI MOHAN.

(i) Yes.

(ii) (*a*) No.

(*b*) As extensively as possible.

(*c*) A working knowledge of written and spoken English should be required. For this purpose gramophones should be utilised as far as practicable.

(*d*) Yes.

(*e*) Yes.

(*f*) All graduates should possess sufficient knowledge of the English language and literature to be able to understand, and be understood by, an educated Englishman and to appreciate his thoughts and feelings. English is the only common tongue of educated India and the only language in which an educated Indian can speak or be spoken to by the rest of the civilised world.

CHAUDHURI, The Hon'ble Justice Sir ASUTOSH.

(i) I hold that in a Bengali university the medium of instruction and of examination should be Bengali. The present system has been in existence for a great number of years, and there is an absence of proper text-books in various subjects in the Bengali language. I do not think there is any difficulty, at the present stage, in

CHAUDHURI, The Hon'ble Justice Sir ASUTOSH—*contd.*—CHAUDHURI, BHUBAN MOHAN—CHAUDHURI, HEM CHANDRA RAY.

adopting Bengali for our matriculation students—English being treated as a second language. We ought to aim at replacing English by Bengali in the higher stages. I have recommended thesis writing in the Bengali language for our doctorate degrees for encouraging the study of that language and adapting it for advanced subjects.

(ii) (*a*) I do not think that University students have, on their entrance to the University, an adequate command of English, mainly due to the method of examination in that subject.

(*b*) English need not be used as the medium of instruction in secondary schools for the preparation of students for the matriculation. It should be treated as a second language, and adequately taught for that purpose.

(*c*) The training now given in English before entrance to the University is due to the method of examination.

(*d*) I think greater attention should be paid in schools to practical training in the use of the English language, but in the University course to the study of English literature and scientific study of the English language.

(*e*) I think the matriculation examination in all subjects, except English, should be conducted in Bengali. It should be in English so far as the English paper is concerned. Bengali students ought to be examined in Bengali in all other subjects, with the option to those whose language is not Bengali to have papers in English.

(*f*) I think English should, at present, be well taught to all students during their University course. It should be such as to enable them to follow the text-books which they have to read, or which may have to be referred to in furtherance of their studies.

CHAUDHURI, BHUBAN MOHAN.

(i) In secondary schools all other subjects except English should be taught and studied in the vernacular, and the matriculation examination in all subjects other than English should be conducted in the vernacular. There is no doubt that students leave secondary schools with a very inadequate knowledge of English; this is due partly to defective teaching, partly to the course of studies prescribed, and partly to the apathy of the guardians to the proper education of their boys. Teachers in charge of teaching English should have a sufficient command of the subject, and should be thoroughly conversant with the method of teaching. The course of studies prescribed should be adapted to the capacity of students and too much latitude in the choice of books should be done away with, as it promotes desultory reading and the habit of thorough study is not acquired. Unless guardians take due interest in the education of their boys, proper education is impossible. Boys, both in school and university, should be trained not only in the study of English literature, but also in the use of the English language. The medium of instruction above the matriculation should be the vernacular in some and English in the rest up to the graduate stage; all scientific subjects, history, and philosophy should be taught and studied in the vernacular. This may not be possible until there are suitable books on the subjects. In the post-graduate stage the medium of instruction should be English in all subjects.

CHAUDHURI, HEM CHANDRA RAY.

(i) No; English should be used as the medium of instruction and of examination only above the "intermediate" stage.

(iii) At every stage up to the intermediate course the medium of instruction and of examination in this province should be Bengali. English should be taught as a compulsory second language.

CHAUDHURI, The Hon'ble Babu KISHORI MOHAN—CHAUDHURY, The Hon'ble Babu BROJENDRA KISHORE ROY.

CHAUDHURI, The Hon'ble Babu KISHORI MOHAN.

(i) In the present circumstances of the country, in which English is the medium of communication in the law courts, public offices, in the legislative councils, and in every place of any importance, it is absolutely necessary that English should be used as the medium of instruction in our schools and colleges.

(ii) (*a*) I do not think so.

(*b*) As in the present political condition of the country a good knowledge of English is essential I think English should be utilised for purposes of instruction at as early a stage of education as possible. I believe this is done from class III of our schools but, even with so early a start, the result is not satisfactory. This is due to the fact that the structure of the English language is quite foreign to our instinct, and a very large amount of industry and application is required for its acquisition.

(*c*) The training given is probably as good as can be expected with the teaching materials now at our disposal but, even this is far short of what is wanted, and I would advocate a general amelioration of the condition of our teachers in secondary schools so as to make the service attractive to the better class of our educated men. When the teaching material improves a better result is sure to follow.

(*d*) I would.

(*e*) Yes.

(*f*) So long as English is the common language throughout India, and the only source through which a knowledge of almost all the subjects of study is to be acquired. I would teach English to all students, whatever their course of study may be, up to the B.A. classes. When special study begins there is no necessity of teaching English as a separate subject. I want to make it clear that I advocate a careful study of English only in view of the peculiar circumstances of our country.

CHAUDHURY, The Hon'ble Babu BROJENDRA KISHORE ROY.

(i) The medium of instruction and examination should at no stage up to the B.A. and B. Sc. standards be English. Great injustice has so long been done to our students, their valuable time most unnecessarily lost, their brains and physical systems unwisely and cruelly taxed, and, in many cases, altogether ruined, by making English the medium.

(iii) We require to learn English more for the proper understanding of the books in the different subjects in English and for conducting business in English, where necessary, than for becoming masters of the English language or literature. Practical training in the use of the English language is not, thus, of so much value to us as training in the study of English literature.

But English should be taught to all students as a compulsory second language in the three higher classes of our secondary schools and during all stages of the University course. Students should be given a general training so as to be able to properly understand works in English, and also to express ideas in English, in the subjects of their studies, where necessary.

In the above view English should be given up at once as the medium of instruction and examination in all subjects except English up to the I.A. and I.Sc. standards, and it should be announced within five years, or earlier; if proper text-books are prepared B.A. and B.Sc. students should also be taught and examined through the medium of the vernacular of the province.

CHAUDHURY, The Hon'ble Nawab Syed NAWABALY, Khan Bahadur—CHOUDHURY, Rai YATINDRA NATH.

CHAUDHURY, The Hon'ble Nawab Syed NAWABALY, Khan Bahadur.

(i) Yes.

(ii) (*a*) No; see also answer to question 1.

(*b*) In all subjects, excepting the second languages, from class VII upwards, *i.e.*, for the upper four classes. The student should have sufficient time to be grounded in the language before he comes to the University.

(*c*) No; the headmaster of every high school should be an Englishman or, at all events, the staff of every high school should have on it an Englishman or an Indian with English qualifications to teach English to the upper three classes. The present defect is primarily due to inefficient teaching. Teachers in high schools are mostly men who, in spite of their degrees, have no command over the English language, and who are the products of the present system where cramming is the sole means of success in a university examination. I would also suggest that examination in English should be more rigid than it is at present. Unless the school system of education is radically changed for the better, there is no hope of having a good set of students in the University.

(*d*) Yes; from class VII of the school department up to the intermediate instruction in phonetics should be given. Also provision should be made for oral composition. In short, there should be a regular drill for students in the use of the English language.

(*e*) Yes; except the second language.

(*f*) Up to the B.A. English should be taught to all students. Students whose general course of studies may be other than linguistic may be given instruction in current English literature.

CHOUDHURY, Rai YATINDRA NATH.

(i) and (ii) (*a*) and (*b*) I have said all I have got to say on this subject in my previous replies.

(*c*) There is considerable room for improving the manner in which training is now given in our high schools for the acquisition of English as a language. Our matriculated students, and for the matter of that those who enter our colleges, are generally deficient in their knowledge of English to the great disadvantage of themselves and their teachers and professors alike. Provision ought to be made for the better teaching of English as a language in our schools, and for a suitable change in the system of testing the progress of students there. With this view I would suggest that better men with better pay ought to be employed as teachers. The tone and standard of examination in the English language ought to be raised for the matriculation, and the examination ought to be conducted so as to test the power and capacity of our students for thoroughly understanding modern English and for expressing their thoughts in clear and simple English. The University authorities may also create machinery (if necessary in concert with Government officers) for inspecting our higher schools to see that they take special care for the teaching of the English language, and they should make better provision for the teaching of English a condition of their recognition. I do not think there will be much difficulty in realising this object if the school authorities really direct their attention to it, and if our educational authorities devote their special attention, in their inspection, to see that this object is carried out.

(*d*) I would like the distinction to be drawn, both in school and university, between practical training in the use of the English language and training in study of English literature. Those who would go up for higher training in English literature should take up such subjects as its history, philology,

archaic forms, etc., and should go deep into the study of English literature, but those who are not going up for this, and are going to take up scientific and vocational subjects in the college, may go through a thorough practical training in the use of the English language by what is called the modern method of learning languages. In adopting this some sort of bifurcation in our schools may be necessary; there should be separate classes in our schools to fit our students for two distinct purposes. But, I submit, this difficulty may be obviated if we make the standard of matriculation such as to secure for our students a thorough practical training in the use of the English language.

(*e*) No; the reasons are already given. I do not think that I should repeat them.

(*f*) Students whose general course of study is other than linguistic fall under these heads:—

(A) Those who take up pure science, including mathematics.

(B) Those who take up vocational studies, as, for instance, medicine, law, and engineering.

(C) Those who go in for the study of "the humanities."

(D) Those who go in for the study of Sanskrit and Arabic and other languages except English.

In all these cases I submit that those students who would go in for the study of pure science, including those who would take the medical and engineering courses, should be required to carry further their study of the English language and to submit themselves to an examination on this extended course. This will not cover their complete University course, but will take up only the preliminary years of their studies. After this those students will be examined only on their selected subjects for graduation.

CHOWDHURI, DHIRENDRANATH.

(ii) (*a*) I do not think that University students have, on their entrance to the University, an adequate command of English. Therefore, I am sometimes tempted to think that it would be better to give them lectures in the vernacular. But there is another side of the shield. If any inducements are held out to them to slacken their efforts to master the English language they would be deprived of the only means of access to the stored up knowledge outside their vernacular. This is a dilemma. It will not be out of place to remark that an equal, if not a greater, difficulty arises out of the difference of ideas between those that are cherished by students and those that are found in the books taught. Examples are drawn from phenomena as suggested by European experience, and not from those as observed in India. However, I humbly submit that the old system of thoroughly studying a prescribed course was a better method of teaching English to the matriculation students than the present system of "no book."

COCKS, S. W.

(i) The advantages of one language as the medium of instruction and examination so greatly outweigh the advantages attaching to the use of the various vernaculars that this question must be answered in the affirmative.

(ii) (*a*) University students have not an adequate command of English on their entrance to the University.

(*b*) English should be used in the middle standards of secondary schools as the medium of instruction together with the vernacular. As the pupil progresses the use of English will increase and the use of the vernacular diminish until English becomes the chief medium. In Burma this stage is reached in standard

COCKS, S. W.—*contd.*—COVERNTON, The Hon'ble Mr. J. G.

VII, the last class of the middle school. The examination of that class (except in the vernacular) is conducted in English.

(c) The training in English at present given in high schools is not sufficiently practical. Too much stress is laid on the preparation of books not enough on conversation and oral composition. A searching oral test should form part of the examination in English at the matriculation.

(e) Except the vernacular, all subjects of the matriculation examination should be examined in English.

(f) English should be taught to all students during their university course. Those whose general course of study is scientific or mathematical rather than literary and linguistic, should have a more practical curriculum designed to develope a fluent use of modern English. When, and if, the work of the first two years of the University course is transferred to the schools then the teaching of English to all students will cease to be essential.

COVERNTON, The Hon'ble Mr. J. G.

(i) The arguments for maintaining English as the medium both of instruction and of examination at every stage above entrance to the University on the whole preponderate in validity against those in behalf of the vernaculars, more particularly if Indian universities are to be brought up to modern standards of method and efficiency, and if they are to be kept in touch with European learning and progress. Where a province has but one vernacular, and that, too, a homogeneous one, it might be possible to allow option in regard to the answering of examination papers, but even those students who selected vernaculars would probably do so because their knowledge of English was inferior and this would handicap them afterwards. They would fall out of touch with first-hand European authorities in the subjects which they studied in vernacular, and would fail to improve their English and to render it generally adaptable for all sorts of purposes. Where there are several vernaculars of equal authority in a province or an area under a university the practical difficulties involved in such a multiplicity of languages must compel the use of English for university purposes.

(ii) (*a*) At present it is quite true that students on entering the University have a very inadequate knowledge of English and are mostly unable to understand English as spoken by an Englishman or themselves to speak ordinary English such as is used by Englishmen in everyday life. But if the school course were lengthened and improved, and the boys came to the University older and with more thorough school training, these defects would be removed and students should then be more able to cope in English with their University work.

(*b*) It does not follow that in schools all work should be carried on through the medium of English, provided that ample time is given to English, and especially to practical forms of English, *e.g.*, dictation, reading, and collequial conversation, all of which at present are far too much neglected in the upper classes of our secondary schools. History and geography are probably the subjects in which the use of the vernaculars as a medium of instruction in schools may be permitted with the least detriment to pupils. In teaching oriental classics, *e.g.*, Sanskrit, Pali, Persian, there may be possible advantages to be gained by using the vernacular. The adoption of the vernacular in the subjects named above would, I think, promote more rapid progress in them and would probably afford more time for the study of English and all those subjects which are to be taught through English. University candidates should be allowed the option of answering papers in the former subjects in vernacular. If this concession is allowed it must be clearly understood that English is not to be reduced to the position of a so-called second language, and that for Indian students it is not by any means to be confined to a mere training in the study of English literature. As I have said, the great requirement in this respect is a practical

knowledge of English, and this cannot be gained by a study of English literature or of the language as a mere academic subject. Pupils leaving school will want English not only for their University course, but for after life, and it is essential that for both purposes they should receive while at school as thorough a training in that language as can possibly be given.

COWLEY, The Hon'ble Mr. F. A. A.

(i) English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course.

(ii) (*a*) University students, judging from those students who take up engineering in the graduate course, have not an adequate command of English.

CROHAN, Rev. Father F.

i) In the first place, any other language seems impracticable where science subjects are concerned. The number of scientific books in the Indian vernaculars is small. Secondly, the use of another language would deprive the University of the services of some of its best men. Moreover, as University students have, at their entrance to the University, a rather poor knowledge of English the chances of further improvement would be minimised.

(ii) (*b*) As students have little chance of learning English at home, or in their social intercourse with friends, all instruction should be imparted in this language.

(*c*) Only such teachers should be employed in secondary schools as are conversant with English idiom. Every teacher should hold a diploma in spoken English. Much improvement would also result if English conversation were made the rule at stated times of recreation, and if more importance were given to the use of English and less to the study of English literature which results in little more than the learning by heart of the text-books prescribed.

CULLIS, Dr. C. E.

(i) Yes; I think, generally, that English should be used as widely as possible in University studies, and that, under the circumstances prevailing in this country, the difficulties of studying in English are often exaggerated. The chief difficulty is due to the classes being too large.

(ii) (*b*) In matriculation classes oral explanations in the vernacular are clearly necessary and advisable. In other respects English should be used as widely as possible.

(*f*) Instruction in English should be continued at least up to the intermediate stage. In general, it should be confined to the use of modern English, special attention being paid to composition.

CUNNINGHAM, The Hon'ble Mr. J. R.

(i) The question seems to be between English as the language of learning in India and the development of the vernaculars to take its place. The issues are largely political. I cannot touch on them. So far as Assam is concerned the answer must be in favour of English. We have Bengali as the ruling language in the Surma Valley, Assamese in the Assam Valley and between them the hills where many languages are spoken. The hills need English—nor can their needs be dis-

CUNNINGHAM, The Hon'ble Mr. J. R.—*contd.*—DAS, Rai BHUPATINATH, Bahadur.

regarded—they are pushing forward in education; a Khasi stood lately at the head of the University honours list in philosophy, another stood at the head of the list of the technical examination board. In all there are reckoned about 160 languages in Assam. In Assam—I should regard it as being the same in India as a whole—the simplification of the complexity of languages should be a cardinal part of our educational policy. Assam will not accept the language of Bengal, the hills the language of the plains. The adoption even of a general alphabet is neglected by inertia or replaced by local patriotism. English for all is common ground and for all affords the widest hope of profit and enlightenment. With the spread of education amongst women the increase of the literate in English returning to their villages to find employment, the general introduction of English into village schools, the prospect is clear, even if it be remote, of English as a living language in India understood in the fields and spóken in the village streets.

(ii) I should not favour any measure of change which would tend to obscure the supreme importance of the study and use of the English language.

(*a*) Decidedly not; they have not, ordinarily, an adequate command of English on their exit.

(*b*) I should incline to favour its introduction from a very early stage, subject to the supply of teachers capable of coping with the task.

(*c*) The training is not satisfactory. The fault is not, however, so much with the system, as with the teachers and with the standards accepted. The teachers are themselves inexpert both in teaching and in their knowledge of English; they find refuge from teaching in lecturing from precision in fluency, from energy and initiative in complaint. In the first place, the schools need better teachers. This is a matter for Government, which must provide better salaries, and the University, which must provide better training. For the rest, children should read more and less narrowly, write less and more correctly, and speak very much more without having it considered too carefully whether what they say is grammatically expressed so long as they speak easily and get their meaning clear. They should speak English not only to the teachers, but in the hostels and on the playground.

(*d*) and (*e*) I do.

(*f*) I advocate systematic teaching in English throughout the ordinary degree course, whether B.A. or B.Sc. In the case of science students the detailed study of English authors should not be necessary. They should do a certain amount of reading and should undergo a thorough discipline in rhetoric.

DAS, Rai BHUPATINATH, Bahadur.

(i) Yes.

(ii) (*a*) I am afraid there are many who do not possess an adequate knowledge. I have not, at present, any experience of first-year students from the commencement of their University course; I take a section of the class in practical chemistry, which work is not begun before February, after the students have read in the college for a few months. I find that, while there are some who can write out the record of experiments done by them in a satisfactory way, there are others who require guidance for the first two or three months.

(*b*) English should be used as the medium of instruction in the first two or three classes of high English schools. Teachers of all subjects, other than the vernacular and oriental languages, should make it a point to speak with the students in English to allow them as much opportunity as possible to talk the language and to acquire facilities in expressing themselves in the same.

(*c*) Kindly see my answer to question 8.

(*d*) A combination of the two, namely, use of the English language and study of English literature, should be used in schools. In the colleges the study

of the literature will form a large part of the course and essay writing and exercises in composition will take the place of translation in the school course.

(*e*) In all subjects other than the vernacular.

(*f*) All arts students should read English up to the B.A. stage, as at present. Students of science need not read English literature after the intermediate stage. They should read in its place popular prose works on scientific subjects, like the works of Tyndall, Darwin and Proctor; scientific essays by Thorpe, Ramsay, and Tilden; and similar works. A book prescribed this year for the B.A. examination named *Discovery: or the spirit and service of science*, by Mr. R. A. Gregory, is the kind of book that should form a part of the course for science students.

DAS, Dr. KEDARNATH.

(i) I certainly hold that English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course.

(ii) (*a*) I do not consider that students, on their entrance to the University, have an adequate command of English. This is corroborated by my personal experience regarding matriculates who enter the Campbell Medical School.

(*b*) Boys ought to be encouraged to express themselves in English from the third class.

(*c*) I am not satisfied with the training now given in English in secondary schools. I would like to see English taught by European teachers.

(*e*) I think that the matriculation examination in all subjects should be conducted in English.

DAS GUPTA, HEM CHANDRA.

(i) My answer is in the negative,

(iii) I would recommend the following changes:—

(A) In the pre-University courses, *i.e.*, at the matriculation stage, the instruction and examination of all candidates whose vernacular is Bengali must be through the medium of Bengali, and others who desire it should also be similarly instructed and examined.

(B) It is also highly desirable that at every stage above the matriculation instruction and examination should be through the medium of Bengali, but it must be confessed that the time is not fully ripe yet for the purpose, though we should have always that goal before us. At present, the chief defect is the want of suitable text-books for imparting high education in all its different branches. I think that the University should encourage such of its professors, lecturers, and assistant professors as are Bengalis to deliver a course of connected lectures in Bengali on subjects in which they have specialised. These lectures will be open to the public, they will be styled the University extension lectures, and the University should undertake the printing and publication of these lectures. This is one of the ways in which I think the deficiency in the text-books will be gradually filled up. But, in the meanwhile, I think that in the University courses it will be permissible to impart education through the medium of Bengali and, whenever suitable text-books written in Bengali are available, they should be recommended. One such book is already in the list, but I think that the number can now be increased.

DAS GUPTA, KARUNA KANTA.

(i) In the university course, *i.e.*, at every stage above the matriculation, English should continue to be used as a medium of instruction, save in classical languages, especially Sanskrit, for which the vernacular seems to be a really good medium of instruction.

(ii) (*a*) It is said that only a little above 60 per cent of the matriculates, on their entrance to the University are found to be well-equipped in English. I trust principals of colleges will bear out the truth, or otherwise, of this allegation.

(*b*) English need not be used as a compulsory medium of instruction in secondary schools for any subject of study whatever.

(*c*) There is room for improvement in the kind of training in English that is now imparted in secondary schools. If the University test be of a little more difficult nature for a pass in respect of a candidate who will follow a linguistic career in a college, and if the suggestions made in reply to question 10 be accepted, there is a chance of improvement; for the teaching of English is subordinated to examination also. I do not think there is any dearth of Indian teachers in secondary schools to carry out this work in an efficient manner.

(*d*) Examination in a subject should be conducted in the language which is used as a medium of instruction.

(*e*) English should be taught to all students during their University career up to the B.A. degree. Students whose general course of study may be other than linguistic should be given special instruction in English composition, style, etc., but bifurcation of study, in any case, should begin as soon as matriculates join a college.

(*f*) It does not seem that the University is doing much to encourage the scientific study of the vernaculars of Bengal, at any rate matriculation boys at present do not study them in the way they should.

DAS GUPTA, SURENDRANATH.

(i) It becomes very profitable and interesting if lectures are delivered in the vernacular rather than in English; we have found that students can understand the spirit of the lecture more easily when a course of instruction is given through the medium of Bengali; at the same time, it should also be noted that Bengali has not yet developed to meet all the demands of a modern education. Therefore, professors should be required to give their instruction through Bengali, but, whenever the subject will be of such a nature that it cannot be expressed in Bengali, the professor should be given the option to deliver his lecture in English. This course may be followed at every stage beyond the matriculation with advantage, though I think that every University student has, or should have, sufficient knowledge of English to be able to follow the University lectures of English. I may note, however, in this connection, that students generally find much difficulty in understanding the lectures of English professors, and particularly of those who push to the extreme the English tendency of shutting the lips while speaking (as contrasted with the French tendency). This is not always due to the lack of knowledge, but is, in most cases, due to their unfamiliarity with proper English sounds or their proper mode of delivery.

(iii) In schools all subjects except English should be taught in the vernacular and, if possible, examinations should also be conducted in Bengali. In the secondary course I should like to follow the same lines as in the University, *i.e.*, preferably in Bengali wherever it is so practicable.

There should be a thorough training of boys in English by employing the most well-trained teachers with good pronunciation to teach English from the lowest classes.

DAS GUPTA, SURENDRANATH—*contd.*

The main defect of the schools is that the teaching of English is entrusted to the care of the worst hands and as a result of that they learn very little when they come to the higher classes and are placed under the charge of comparatively better teachers.

It seems to me wholely unnecessary to teach English classics to those who may have to do nothing with English literature thereafter. So, as a rule, I should like to see that the teaching in schools be in the direction to enable students to speak, read, and understand English correctly. Taking this as the main object I have no objection to introduce text-books also, just as is done at present.

I do not think that in the graduation course in the University it is necessary to teach English to those who do not like to specialise in English. For them, I should like to have a test of composition and unseens merely to ensure that they should not get out of touch with English.

With regard to the whole subject of the importance of the 'vernacular' in our country there seems to be much confusion of thought in many quarters. It is, therefore, desirable that I should try to bring the main considerations which should influence our judgment in a condensed and systematic form.

The object of university education in the country is not to facilitate the manufacture of good clerks, deputy magistrates, or even pleaders, but to raise the general elevation of the thought of the country to such an extent that our countrymen may, in future, be able to help the advancement of knowledge by original contribution, in every department of thought and may share in large masses the heritage of the progress of the world.

The main confusion lies in this, that when we think of any university reform we at once think of the immediate success of the scheme in helping us to obtain good services and conduct them efficiently. I do not deny that this is also a great need of the country, but what I mean to say is this that this consideration plays but a small part in the determination of such reforms as that of university which are much larger and broader than such immediate pecuniary considerations. We may find easier methods of solving these difficulties of qualifying ourselses for service, and should not, therefore, allow ourselves to be influenced by these considerations while determining matters of such vital importance. Surely it is not necessary for Government to spend such large sums of money on education if it had no other better end than that of manufacturing that kind of education which is necessary for an ordinary office life.

The question of supplying such a liberal culture to the country as can continue to produce new fruits in a steady manner brings with it the question of the vehicle, or medium, through which such a culture should find its expression. We know from our experiences of the past history of all the nations of the world that no person has yet been able to produce anything which has stood the test of time in a foreign language and, if we do not think of making an exception in the case of the Indian intelligence, we are forced to the conclusion that it will be impossible to stick to the English language as the medium of the future delivery of the country before the bar of the nations of the world. If the vernacular, therefore, is to stand as the only medium through which the superior works of the country should be produced it becomes necessary that the best intellects should be made to think the highest problems through the vernacular, and to express them in that language. This, it cannot be denied, requires patient instruction for long periods and, if this is not begun from our schools and carried all through the University course, it can never meet with success. But the difficulty is that our language is not yet sufficiently developed to take such a burden upon it. But it has to be developed and it is, therefore, that I suggest that, wherever possible, instruction should be given in Bengali, however high the course may be, and however trained the boys may be in English. For it is not only necessary that boys should think, but it is also necessary that they should try to think and express the most abstruse

DAS GUPTA, SURENDRANATH—*contd.*

problems in their mother tongue. Without a continued period of association this is impossible. The objection may be made that it would have helped boys much to learn English if the instruction had been imparted in English. To this my answer is, first, that the instruction in scientific subjects, such as mathematics, physics, economics, or even philosophy, through the medium of English cannot be expected to help the formation of any literary style, or any style of official correspondence to any degree of excellence. Secondly, the learning of English is not so necessary that for its sake the great ideal of national education should be sacrificed.

The superstition of learning English has now got such an ascendancy that most people form the judgment of the culture of a person by the amount of English that the person knows. What can be more deplorable than such a state of things when the true character of the means is forgotten, and it is treated as the end.

The reason why our boys take such a long time in picking up such a small amount of learning is to be found mainly in this, that much of their time is unprofitably spent over Shakespeare and Milton. There is no use for all these for those who are not going to specialise in English literature. Much of our time is lost in picking up the freaks of this foreign language, which could have been more profitably spent in acquiring real learning of useful things or those the attainment of which might be calculated to procure a general elevation of the mind of the learner. Such confusion of duties, of teaching English classics on the one hand and that of giving a practical training in the English language for ordinary daily use on the other renders the teaching of English also difficult. It should be borne in mind that no further attainment in English is necessary for the 90 per cent of us than to be able somehow to express ourselves. We should have (speaking for the mass) the illegitimate ambition of learning the English language to perfection. It is unnecessary and useless (of course we make an exception for those who are going to be linguists).

If arrangements are made from the school classes to give practical training in English sounds, and to impart English through the medium of the vernacular during the primary stages and then, when the boys are advanced, through the medium of English, and, if this course is followed even in the secondary stage of instruction before the graduation course, I think students should acquire much better English than by the procedure of teaching English by getting by heart the notes of Shakespeare or Milton. At the same time, it will have this advantage that the boys, not being hampered by the burden of this language, will be able to pick up other subjects more quickly.

If, in this way, the tradition and dignity of the vernaculars is once established, we soon find that the need of English as the primary language in this country will be gone. Unless this natural position is established any amount of training that the University might give can never be credited to its success. For, if the dignity of Bengali is not established no person will care to write in Bengali on any higher subject; as a result of that the whole impossible burden of English will have to be carried in order to get any training above the purely primary stage; no first-rate production will be possible; the general mass will be separated from the educated mass, as is to a great extent the case now; high education will be impossible for the mass; it will cease to have any sympathy with the higher set of men whose works are written in a strange language; there will not be the scope for having a wide selection from the mass, though we know that in other countries there have often developed the greatest men of genius and intellect through private studies and the enquiring spirit, for the Bengali language will then contain nothing which will satisfy the enquiry of an earnest mind. It will ever remain a local jargon and all the future capabilities of the language will be ruined and, man for man, it will be difficult for a Bengali to compete with a person of any other nationality in the world. For in no country do we find such an inversion of things and such unnatural burdens placed upon the shoulders of boys through the tragedy of such a language muddle. I am, therefore, of opinion that the aim of

DAS GUPTA, SURENDRANAT :—*contd.*—DATTA, A. C.—DATTA, BIBHUTIBHUSON.

the University should always be to supplant English by the vernacular, but when, owing to the imperfect growth of our language it is not possible for us to do it, we should suffer English text-books and the English medium of instruction as necessary evils to be got rid of as soon as we can have suitable substitutes in the vernacular. If Government and the University would co-operate in bringing about such a development of the country it may be hoped that we shall soon get such elevated text-books in Bengali that it will be possible for us to dispense with English as a medium of instruction for the general B.A. or M.A. courses.

DATTA, A. C.

(i) It will take a very long time before we shall be in a position to think of a substitute for English as the medium of instruction in the University courses. Unless, therefore, the University functions are to be suspended until the vernaculars reach the standard of requirements for university teaching English will have to continue as the medium of instruction for university purposes. It, moreover, opens the gate of European thought for the Indian mind, which is more essential than mere instruction in particular subjects.

(ii) (*a*) As far as the Calcutta University is concerned I am decidedly of opinion that the students who matriculate are quite inadequately prepared in English.

(*b*) English should be the medium of instruction in all those subjects in which a student will be expected to carry on his studies in English at the University stage.

(*d*) I would certainly draw a distinction between the study of the language and the study of the literature, and should like to see the two studies carried on separately, treated as two different subjects. This may not be quite possible in the school course : but the study of the language should predominate in the school course of English.

(*f*) The study of the English language should be made compulsory for all students at the University. But the study of English literature need not be compulsory except for those whose studies comprise subjects related to English literature. (This method was adopted some years ago in the Allahabad University.)

DATTA, BIBHUTIBHUSON

(i) and (iii) In a speech at the State school delivered a few months ago His Highness the Maharaja of Alwar observed :—

"While I do not minimise the importance of education being given to a higher standard in the English language I do most emphatically maintain that, for the sake of our nationality, our country, and our religion it is even more necessary for education to be given in a thorough manner in the vernacular."

There is the more general proposition, which has found the acceptance of all classes of thinkers, that the children of a race would be best educated in, and through, their own mother tongue. The evil of forcing an alien language only serves to dry up, at their very sources, the very fountain springs of national power and, thus, impoverishes the nation on the side of initiative and originality. For a lesson appeals more to the head and heart of a boy and, thus, becomes more effective when it is conveyed through a medium in which the boy is fitted, by tradition and environment, to express his own thoughts, otherwise education becomes parrot-like cramming rather than intelligent understanding. It is also the opinion of the Education Commission of 1882 ; it came to the conclusion that a boy was more intelligent if he had

DATTA, BIBHUTIBHUSON—*contd.*—DATTA, BIRENDRA KUMAR.

studied through the medium of the vernacular till the highest classes were reached. I would like to make the following suggestions :—

(A) In the pre-University course all the subjects must be taught and examined in Bengali.

Though the existing regulation permits candidates for the matriculation examination to submit their answer papers in history in Bengali the candidates cannot ordinarily avail themselves of it since the subject is taught in schools through the medium of English. This accounts for the high percentage of failures in the subject.

English will be taught as the compulsory second language. It must be begun when the boy has reached the fourth class.

(B) In the University course all the science subjects and logic must be taught and examined in Bengali.

Students meet these new subjects for the first time at this stage. The scientific language is terse and technical, so cannot be easily mastered. The difficulty becomes still greater in the case of Indian boys as the tongue is foreign. So they are tempted to cram the ideas as much as possible, instead of trying to understand them. And this becomes a sort of necessity for them as teachers are eager to make rapid progress in the subjects so as to finish the whole course within the limited period of two years. Every original investigator knows well the labour and the time he must spend in mastering an original paper when it is written in a language of which he is an imperfect master.

In Bengali there are some elementary text books on physics, chemistry, botany, etc. The *Bangiya Sahitya Parishad* has already begun to coin scientific terminology in Bengali so it will not be difficult to write advanced text-books.

DATTA, BIRENDRA KUMAR.

(i) The study of English should be made compulsory for all students—male and female—at all stages of education—from the primary stage up to the end of the University education. But I am, at the same time, of opinion that, excepting history, no other subject should be taught in English up to the B.A. From the B.L., M.A., and higher up students are to be allowed to read the original books in English in the different subjects and sciences along with Bengali translations as far as possible. Too much importance appears to have been given to the study of English and, as a result, our students have, in many cases, squandered their energy in learning this language, which might otherwise have been utilised for acquiring profitable knowledge in other directions. They fail to enter into the spirit of their own culture and nation, and the geography, the history, the surroundings, and the literature of their own country remain, to a great extent, unfamiliar to them. This explains the cause which prevents professors of our universities from taking an active interest in their work and from engaging themselves in any special department of science or literature. In fact, up till now, with a few brilliant exceptions, the contribution of our professors to science and literature has been practically *nil*—a sad commentary on the system of education so long in vogue in our University.

I am strongly of opinion that Bengali, which is the mother tongue of the people of this presidency, should be made the medium of instruction, instead of English,

(ii) (*c*) The kind of training now given in English does not seem to be satisfactory.

As for the matriculation class too many books are assigned for study but, as questions are set from none of them, students do not read them

carefully. I would do away with all the books and, instead of them select one book containing selections in poetry and prose from the bes modern authors and make its study compulsory. I would assign one-fourtl of the total marks for proficiency in this book, the remaining three-fourth of the marks being kept apart for composition, essay writing, and translatio from Bengali into English and from English into Bengali.

For the I.A. and I.Sc. classes I would keep one-third marks for composition etc., and the rest for book study.

(*e*) The matriculation examination, and also other examinations, should *not* b conducted in English.

It is a matter for great regret that question papers in Bengali and Sanskrit ever are set to a great extent in English.

As matters stand at present students are allowed to answer questions on Sans krit in English. There is a Sanskrit grammar written in English and issued by the University. Boys learn very little of Sanskrit and Bengali under the present arrangement. Students who have passed the B.A. in Sanskrit will be found not even able to understand the most elementary books in Sanskrit.

As regards Bengali, which has been recently introduced, the study of poetry is not included in the prescribed courses. Grammar is also not studied. As a rule, boys do not read Bengali at all, and professors and teachers ignore the subject altogether in their courses of lectures.

The study of Bengali should be thorough, both poetry and prose being included in the curriculum. The study of Bengali grammar must also be made compulsory.

DE, HAR MOHUN.

(i) Yes; so far as English literature is concerned; but, in other subjects, English might be gradually dominated by the vernacular up to the I.A. examination. In the B.A. classes English ought to be the medium of instruction as well as of examination.

(ii) (*b*) Only so far as English is concerned it ought to be the medium in the top three classes of high English schools. But in other subjects it is unnecessary.

(*c*) No; I am not satisfied. Greater ability to express common ideas in correct and simple English, without laying much stress upon the thinking capacity of our young students is required. A prescribed course of study, with oral examination in conversation, would do.

(*d*) Yes.

(*e*) No.

(*f*) Yes; students whose general course of study is other than linguistic may be expected to be familiar with certain standard works in a general way.

DE, SATISCHANDRA.

(i) Yes; except in the vernacular and classical languages, *e.g.*, Sanskrit, Persian, etc.

(ii) (*a*) and (*c*). See my answer to question 8.

(*b*) The vernacular should be the medium of instruction in all the classes, except the highest four, in which instruction should be imparted in both the vernacular and English in order that students may learn how their teachers express their thoughts in English. Vernacular should be the medium of the teaching of classical languages and vernacular to all the classes.

Bengali, for example, may become the medium of instruction in all the classes of schools and colleges when it becomes sufficiently developed. There are technical terms of Western philosophy, sciences, and arts for which there are

DE, SATISCHANDRA—*contd.*—DE, SUSHIL KUMAR.

no Bengali equivalents. Again, instruction cannot be imparted to a class in Bengali when in it there are students whose vernacular is not Bengali. In the Presidency College, Calcutta, for example, in every big class there are several students whose vernacular is not Bengali. In the Dacca College there are classes in which there are some students whose vernacular is not Bengali. This difficulty is likely to be experienced more in colleges than in schools. As schools are numerous a student, whose vernacular is Santhali may read in a school of the Santhal Parganas, in which instruction is given from the highest to the lowest class in Santhali. But, as colleges are few, students whose vernaculars are Santhali, Assamese, Bengali, Urdu, and English, may be congregated in a college.

English literature should be taught in English in all the classes of the college in order that students may be rendered capable of expressing their thoughts in English—the language in which the pleadings of law courts are conducted, in which communication with the inhabitants of the other parts of India and with Europeans is carried on, and in which we are enabled to avail ourselves of the intellectual wealth of the various countries of the old and new worlds. But, lecturers on English should resort to the vernacular whenever an idea can be better expressed or more easily understood by means of it (the vernacular).

(*d*) In the school and the intermediate classes of the college there should be no distinction ; but the differentiation may be instituted in the degree stage so that B.A. students should cultivate both English literature and English composition and B.Sc. students only the latter.

(*e*) Yes ; except in the vernacular and classical languages, *e.g.*, Sanskrit, Persian, etc.

(*f*) Yes ; the study of modern English literature and of the art of English composition.

DE, SUSHIL KUMAR.

(i) Under the existing order of things English has been used as the medium of instruction and of examination at every stage above the matriculation and in most of the subjects even in the matriculation stage ; but now we are brought face to face with the larger question as to how far the vernaculars ought to, and may, replace English as the vehicle of teaching. There cannot be any doubt that every system of national education ought to take the national tongue as the basis but, apart from this question, let us take the practical consideration, *viz.*, whether the waste of time and energy over the acquisition of a foreign tongue, which this anomalous system involves, ought not to make us pause and consider the desirability and feasibility of making the vernaculars the right and proper medium of instruction. I have elsewhere pointed out the difficulties of Indian students under the present system by which almost everything has to be taught from an early stage in a language which they do not learn from the lips of their mothers. Our students' weakness in English has been the object of sheer and ridicule by short-sighted and unsympathetic critics ; but there is no better commentary on the situation than the fact that those who are most uncompromising in their criticism do not themselves acquire more than a score of vernacular words during their lifelong stay in India. The situation can be best realised by a foreigner if he can imagine, for a moment, a state of things in which, suppose, English boys are asked to prosecute their courses of studies in Russian and they are lectured upon and examined in that language. The genius of the English language differs entirely from that of the oriental languages, to which our students are born, and the laborious process of acquiring it absorbs so much attention that it necessarily leads to considerable weakness in other subjects. Eight years of school life, and three or four years in the college, are spent more or less entirely in the acquisition of this all-important foreign

DE, SUSHIL KUMAR—*contd.*

tongue, and one cannot but be struck if he imagines the stupendous amount of wastage of intellect and energy which such a process entails.

It will not be seriously disputed, I think, that it is desirable to recognise the claims of the vernaculars to be the medium of instruction; but the most important question is how far it is feasible and practicable to do so. When the start was first made for university education in this country the capacity and resources of the vernaculars were unknown, and there were no suitable text-books to go upon; consequently, there was no other alternative than the adoption of English as the medium of teaching and examination. The fact that it was the language of the rulers, and that it was considered as a passport to employment in the services and the learned professions, lent its strong support to this scheme. The system has become, in course of time, so deeply and firmly rooted in our institutions, and our students and professors have become so thoroughly accustomed to it, that any alteration in this direction is apprehended to be productive of the greatest confusion and evil by disturbing the settled order of things. On the other hand, the growing adaptability of the vernaculars as a medium for teaching, and their immense possibilities, combined with the fact that these possibilities can be best developed by proper university recognition, make it almost imperatively necessary to introduce the vernaculars as the proper medium. We are gradually getting over the old-world faith, so sweepingly expressed by Macaulay's words, that a shelfful of books on Western literature is worth more than a library of the East. It is not beyond doubt, however, whether the vernaculars can be usefully utilised in teaching the higher branches of learning, or a highly technical subject, and, in spite of a healthy and increasing tendency in this direction, the number of text-books as yet, is, few and limited. It has been urged that if the vernaculars are solemnly included in our curriculum, and opportunities are properly given, text-books and educational literature (for necessity ultimately leads to invention) will be directly forthcoming, and that the University ought not to be slow in extending its desired patronage which alone can promote and realise this good cause. Recognising these difficulties on both sides it is obligatory upon us to make a carefully considered and cautious advance, steering clear of thoughtless impetuosity, on the one hand, and of equally thoughtless sneer and banter on the other.

The best course would be to introduce the vernaculars by stages and by slow degrees so that they may gradually replace English as the sole medium. I do not believe in reforms by leaps and bounds however imperative the suggested course of reform may be. If English is suddenly replaced by the vernaculars there can be no doubt that it will bring the gravest confusion into our educational system, such is the accustomed groove into which it has been led. If, however, for the present, the teaching and examination in certain suitable subjects be conducted in the vernacular it will be possible to introduce in course of time a similar method in other subjects. To take a concrete instance, candidates are now allowed option in the matriculation to answer history papers in their vernaculars; this experiment has not proved unsuccessful. They may be similarly allowed the option in certain other papers, *e.g.*, geography or mathematics, to write in their vernaculars. Gradually, this option may be extended if found suitable. Similar option may also be allowed in a limited number of subjects, for the present, in the I. A. as a preparatory step to the gradual expansion of the vernaculars as a suitable medium. In course of time this option may be taken away and writing in the vernaculars may be made compulsory. Thus, recognising the vernacular as the vehicle of teaching up to a certain point in at least some selected subjects we may gradually develope its possibilities of further expansion in this direction.

So long as this ultimate object is not realised—and it will take some time for its full realisation—my proposal is that English should be used as a medium in subjects in which it is not yet practicable to introduce the vernaculars at once; but, at the same time, a distinction ought to be made not in the school, but in the

University, between practical training in the use of the English language and training in the study of English literature. Up to the I. A. standard the teaching of English literature may be continued but, after that stage, as soon as specialisation begins (as it ought to begin) training in the use of the English language alone is quite enough for those who do not want to specialise in English literature, but who want to take up some special branch of arts or science; for the study of English literature would be of no practical use, except by way of general culture, to this latter class of students.

DEY, BARODA PROSAUD.

(i) It would be an excellent thing if the vernaculars could be used as the medium of instruction and of examination both in secondary schools and in the University courses. That would reduce the mental strain upon students, on the one hand, and would raise the vernaculars in the scale of languages on the other. But the time is not yet. There are at present hardly any vernacular books worth reading in ordinary subjects, not to speak of abstruse ones, so, by the introduction of the vernaculars as the medium, on sentimental grounds, the results will be very unsatisfactory. The University should at first form text-book committees of experts on different subjects with a view to prepare proper text books on those subjects, and then gradually introduce them in schools, as well as in the University.

(ii) (*a*), (*b*), (*c*) and (*d*) Average students do not possess an adequate command of English on their entrance to the University, but this defect will not be remedied by the introduction of the vernacular as the medium of instruction. The evil is in the whole course of the study of English from the beginning in a minor school where, instead of laying a proper and stable foundation, cramming in its worst form has to be cultivated, with the result that the whole thing at last becomes top-heavy and unstable. The improvement lies in the introduction of proper text-books all along the line, and in the improved method of teaching by competent teachers who would understand and exercise a distinction between the study of the English language and the study of English literature.

(*e*) The vernaculars should gradually be introduced into the matriculation examination in the subjects on which proper text-books are prepared.

(*f*) As the knowledge of English is necessary even for the courses of study other than linguistic English should be taught to all students during their University course.

DEY, N. N.

(i) I do not hold that English should be used as the medium of instruction and of examination at every stage above the school period. As I have already said, in the pre-University stage the vernacular medium can be fully used. And, even in the degree stage, my experience goes to say that scientific and technical training may, with advantage, be given in the vernacular (using, of course, the English technical terms), for then the student understands things fully and can express himself afterwards in the vernacular or in English.

(iii) English as the compulsory language should be studied throughout the pre-University and University courses. For science students general works in English in their respective scientific subjects may serve their purpose, and no critical study of literature is necessary for them.

DHAR, Rai Sahib BIHARI LAL—D'SOUZA, P. G —DUKE, W. V.—DUNN, S. G.

DHAR, Rai Sahib BIHARI LAL.

(i) Yes.

(ii) (*a*) Yes.

(*b*) English should be the medium in teaching English only. In teaching other subjects the vernaculars should be the medium of instruction.

(*c*) Not quite satisfied; the maximum limit of enrolment for each class should be reduced, and the number of boys under one head should not exceed 300.

(*e*) The examination in English only should be conducted in English.

D'SOUZA, P. G.

(i) If English is the medium of instruction and of examination at every stage of the University course the bulk of the people is likely to be excluded from the benefits of university education, and even those who are able to go up in English will be compelled to spend a disproportionate amount of time and energy in acquiring proficiency in that language. The most suitable arrangement seems to be to treat the vernacular as the principal language up to the University, with English as a compulsory second language. In the University not more than a working knowledge of English should be demanded from non-language subjects. A high standard in English should be insisted upon in the case of candidates who take language as the principal subject. In the case of students taking non-language subjects a few books may be prescribed for non-detailed study.

N.B.—At present the bulk of those that join the University either look forward to Government employment or to careers in which a good knowledge of English is indispensable. Until this is altered any changes which are likely to give a subordinate position to English are not likely to be popular, but if the aim is to spread the leaven of education uniformly, it is very necessary to afford facilities for university instruction through the medium of the language of the people.

DUKE, W. V.

(i) Yes.

(ii) (*a*) They have not anything approaching an adequate command of English.

(*b*) It would appear desirable that instruction, with English as the medium, should commence as early in a student's life as possible. I, therefore, think that English should be the medium in classes I—IV of high schools, as at present.

(c) No; I am strongly of opinion that English should be taught to beginners by teachers strong in English. At present, this is done by matriculates in the majority of cases. Matriculates are not fit to teach an important subject like English, and I would suggest that the rules which at present sanction the employment of matriculates as English teachers be abolished, and that the standard be clearly laid down that no one, unless he is of the I. A. status, is competent to teach English in any school.

(*e*) Yes.

(*f*) English should be a compulsory subject, as it is at present. The present arrangements for science students, etc., appear to be satisfactory.

DUNN, S. G.

(i) The answer is in the affirmative so far as the majority of universities is concerned. But that is not a valid objection to the establishment of universities of a purely indigenous type in which an Indian vernacular should be the medium of instruction and Indian classical languages, arts, and sciences the main object of study.

DUNN, S. G.—*contd.*—DUNN, T. O. D.

(ii) (*a*), (*b*), and (*c*). University students have not, on their entrance to the University, an adequate command of English. They have not been taught to speak or write it correctly; they do not understand the elements of its structure, and they have great difficulty in following lectures or reading books in English.

It is suggested that English should not be the medium of instruction in schools, but should be learnt as a second language at about the fifth class stage when a boy is twelve or thirteen years of age. It should be taught as a language by trained language teachers; at present it is not so taught.

The boy who is going up to the University will require a different type of English training from this, or rather he will need, in addition to it, what the other boys will not need—a greater familiarity with the literary use of the language. He can attend special classes for matriculation candidates and, in this way, he will have a practical training in the use of the English language and a training preliminary to the study of English literature.

(*d*) It is essential to make this distinction. Because it has not hitherto been recognised in our Indian universities our English courses have been futile. At present, the University teacher has to teach English literature to students who have not mastered the English language; he tries, therefore, at the same time, to give them this training which they should have received at the schools; he has not time for both, and the result is that neither is properly acquired by the students. It follows from this that there should be two courses in English at the University :—

(A) Compulsory for all under-graduates. This course would complete the training begun in the school in English as a language. It would necessarily include a certain amount of modern English literature, but this would be studied as illustrative of the language, and not with a view to literary criticism.

(B) An optional course in English literature. In this the student would be able to study English literature adequately because by his other training he would know the language better than he does now. He would have time to study the literature from a critical and historical point of view and not, as now, be content with merely verbal interpretation. Only men interested in literature would take this course; for all who desired to learn English in order to speak and understand it for practical as distinguished from artistic, purposes would be satisfied with the compulsory course. The fault of the present system is that we force many men to study English literature in a very indifferent manner when they are not interested in the subject, and desire only to learn the language. The result is that we destroy in them all taste for any literature and they never afterwards read for pleasure.

DUNN, T. O. D.

(i) Yes; but with the present level of attainment in English at the matriculation stage this is not possible. Much instruction leading to the intermediate must, of necessity, be in the vernacular. Further, I believe strongly that in the study of a classic like Sanskrit there is little to be gained, and very much to be lost, by using English as the medium of translation. Bengali has its roots in Sanskrit; and the modern language would gain, from the point of view of scientific analysis, if it were closely connected with the study of the parent language. I have remarked on this in connection with school work in this question.

DUNN, T. O. D.—*contd.*

(ii) (*a*) No; in the vast majority of cases, no.

(*b*) English should be used as the medium of instruction in secondary schools to the utmost extent of the capacity of the staff. The "extent" of its use varies now with different institutions, as follows :—

(A) Schools under missionary control, with European teachers, are able to use English as the medium of instruction at a stage four years before the matriculation. The senior classes of these schools may reasonably be described as bilingual. At present, the best of them are girls' schools, with several European teachers.

(B) The better schools staffed solely by Indians—Government high schools and certain privately managed institutions—have not yet attained to this standard. English, two years from the matriculation, is scarcely a complete medium of instruction, and cannot be considered so even in the final year of school work.

(C) The average "recognised" school does not attain, at any stage, to the free use of English as a medium of instruction.

The subjects taught through the medium of English would be all the subjects of the existing curriculum with the definite exception of the Indian classical languages. Translation from Sanskrit should be carried on in Bengali. This is only fair to the pupil, and the only means of attaining to a scholarly and analytic knowledge of the mother tongue, and the correction of the hideous evil of the "key" by which a boy translates his Sanskrit into the vilest kind of English. There has been much discussion on this question of the medium of instruction. It is frequently asserted that a boy studying the subjects of the school course in the vernacular alone knows more about these subjects than the boy who has been taught through English. This is a specious argument based upon an hypothesis that is probably quite false. How much can a schoolboy learn of anything? And what is the value of the content of his knowledge? Probably very little. The real question is :—to what extent has he been taught to think? This latter goal will be better realised through the medium of English. It is again asserted that, were teachers free to work in the vernacular, they would teach so much more rapidly that there would be more time for more thorough instruction in English. Again specious! Probably true—if the teachers of English were of better qualification. With the present type of man this latter system would involve the disappearance of English altogether.

(*c*) No; there can be no satisfaction with the kind of training that fails to enable boys to use English and to understand it freely in the lecture-room. The improvements desirable are as follows :—

(1) The cultivation from the earliest stages of the power of expression in English.

(2) The application of simple phonetic laws and the early attainment of accurate pronunciation.

(3) The elimination of reading material that fails to provide:—

(A) Ideas familiar to young Indian minds.

(B) A vocabulary in modern use.

(C) A stock of idioms that are familiar to Englishmen.

(4) The training of the ear in conversation and in the reproduction verbally, or on paper, of material read aloud in English. This last should be part of the final matriculation test.

(5) The elimination of meaningless "gerund-grinding," and the complete abolition of fantastic grammatical terms.

What is needed in the matriculate is the capacity to understand spoken English (not too difficult), the power of expression in English, and the ability to read simple narrative prose.

(*d*) The study of English literature, as such, should be taken up in the latest stages of university work by those who desire it; and this study should be of an advanced kind similar to that of an honours school in English in the modern European universities. What literature is studied before the above course is possible should be so selected and so handled as to contribute substantially to the practical training of the student in the English language. I would suggest some such system as the following :—

(A) In the school—training in the use of the English language only, assisted by the reading of simple English texts arranged to that end. Skilful choice of reading material may enable "literature" to be introduced; but its study will be, as it were, unconscious.

(B) In the University : training in the use of the English language only, up to the present B. A. stage, assisted by the reading of English texts arranged to that end. Here, of course, the material selected will increase in difficulty, but it should be consciously and consistently subordinated to the idea of linguistic training. Such material, while it can be of great interest and of considerable range, even of considerable chronological range, will never include Shakespeare's *As You Like It* or Rossetti's *Blessed Damozel*. I am inclined to think there is much feeling on this point; and that Indians are apt to consider it an insult to their intelligence if they are told that "literature is not yet" in the B. A. curriculum. But we have to legislate for the mass; and the results of the present system are deplorably comic.

Briefly, then, I do not recommend any study of English literature, as such, in the school. In the University, up to the stage of the present B. A., I would subordinate all "literature" to the needs of linguistic training. After that stage, for those who desire it, I would welcome a good honours school in English language and literature, with all its customary branches of study.

(*e*) No; with our present system of secondary education I would allow a matriculation candidate to express himself in any language that his examiners could understand, with the following provisos :—

(1) The English papers must be answered in English.

(2) The classical papers must be answered in the mother tongue of the candidate. Of course, it might be urged that this would tend to discourage the study and use of English throughout the school course. But the English portion of the matriculation examination should be so conducted (with an added test of the student's power to understand spoken English) as to obviate this.

(*f*) It is highly desirable to teach English to all students up to the B. A. standard. It should not be necessary to continue such instruction in the honours courses of the M. A. If the proposals of point (*d*), above, are accepted I would have the same course of training in the use of the English language for all students up to the B. A.

DUNNICLIFF, HORACE B.

(i) My practical experience of teaching in India has been connected mainly with science subjects, and principally with chemistry. It appears to me that, in

science subjects, the only practicable medium of education in India is English for undergraduates and post-graduate students. When I arrived in India I was pleasantly surprised at the command of English at the disposal of even first-year students. Lecturing, as I do, to the first-year class, I find that students often experience difficulty in understanding an Englishman at first. This is due to the fact that many of the class have never heard an Englishman speak at length before. It is not their fault, and points to no ineptitude on their part. It is obviously impossible for every school to provide for even one Englishman on its staff. I find that, by giving a series of elementary lectures on *familiar* subjects—with free use of the blackboard and practical demonstrations—even village lads soon get accustomed to my voice and understand my lectures.

(ii) (*b*) For science students it is a *sine qua non* that English must be largely the medium of instruction as a preparation for future study. For "middle" classes I consider that a combined course of English and vernacular, as used in the Punjab, is a good system.

(*d*) There is too much attention paid to the study of "literature" and poetry in the average university curriculum, and too little to the *practical* study of the language. Ask the average boy to write a description of a common object, *e.g.*, a bicycle, and he will, in most cases, produce a very indifferent effort. If asked to describe "Sesame and Lilies" he would probably produce something quite reasonable—mainly quotations from text-books or his teacher's notes.

(*e*) I should insist on English for science subjects, but see no reason why such subjects as history should not be answered in the vernacular. It would give the Indian student a chance of displaying any tendency to "style".

(*f*) Yes; if a student is studying science I advocate a study of English, such as would make newspapers and periodicals easily understandable. In other words, I recommend a course of study which does not involve the study of set books. English should be a subject of examination, otherwise it would be completely neglected.

DUTT, BAMAPADA.

(i) Under normal conditions the medium of instruction and examination should be the vernacular of the country. If the acquisition of knowledge be the object of education it may be more easily attained, and with less strain, if imparted through the medium of the vernacular. I wish very much that the medium of instruction and examination in Bengal, be Bengali, but there are certain difficulties in the way, *viz* :—

(A) India, as at present circumstanced, must look towards England as her ideal and store-house in matters of education and, if instruction is imparted through the vernaculars of the country, she would lose the benefit of the services of the English-preferring educationists. It may be argued against this view that Indians may be sent to Europe to be equipped with proper materials and that they may, on their return, impart their acquired knowledge in their own vernacular. But I doubt whether such Indians, with few honourable exceptions, will become first-rate men during their comparatively short stay in Europe.

(B) As long as the administration of the country will continue to be British a high degree of proficiency in English will be necessary for people to be associated with the higher branches of the administration.

(C) India is divided into many provinces having different vernaculars. There should be a *lingua franca* for the exchange of thoughts and ideas and the transaction of business between different provinces. Up to now English serves the above purpose, and it is desirable that it should continue to do so.

DUTT, BAMAPADA—*contd.*—DUTT, P. N.—DUTT, REBATI RAMAN.

(D) The want of proper text-books in the vernaculars.

For the above reasons, I would suggest that the medium of instruction and examination in the University course above the matriculation should remain English for some time to come. The University authorities may gradually introduce the vernacular medium, except for instruction and examination in English literature, subject by subject, when they are satisfied that a sufficient number of well-equipped Indians and text-books are available to teach that particular subject.

(ii) (*a*) No.

(*b*) In secondary schools subjects other than English literature and language should be imparted in the vernacular. By this method students will acquire knowledge in those subjects more easily, and with less strain.

(*c*) No; the teaching of English should be more thorough. Attempts should be made to create a taste and desire in students to read English literature more thoroughly and copiously, and examination should be conducted to test their proficiency. Attempts should be made to enable students to speak English more freely and correctly. Much depends upon the selection of teachers. Teachers appointed to teach English should not only have a mastery over English literature and language, but also must be able to speak idiomatic and correct English, with correct pronunciation and accent.

(*d*) I would like to draw a distinction between practical training in the use of the English language, and training in the use of English literature in schools only. And, if that is done successfully, no such distinction would be necessary in the University.

(*e*) The matriculation examination in all subjects other than English may profitably be conducted in the vernacular, for teaching and examination of those subjects in the vernacular will improve the vernacular of the boys, and reduce their strain.

(*f*) Yes; for those students whose general course of study may not be linguistic the teaching of English literature should be of an easy and practical nature as opposed to critical study.

DUTT, P. N.

(i) Yes.

(ii) (*a*) No.

(*b*) I should recommend a reversion to the old system under which instruction in all subjects, except the second language, was given in English.

(*c*) Not at all; I suggest that boys should be made to speak and write good idiomatic English employed in every day life. At present students learn a lot of useless things, but no honest attempt is made to train them in what they will require most afterwards.

(*d*) No distinction need be drawn at school, but more attention to the former is necessary. The process may be reversed later for those who wish to specialise in English literature.

(*e*) Yes.

(*f*) Yes; so far as speaking and writing good English are concerned. I should recommend that all students should have a training, keeping this object in view.

DUTT, REBATI RAMAN.

(i) English is the *lingua franca* of India. It has kept us in touch with a great civilisation and a great world-Empire, and it is essentially necessary that our education should be sufficiently in English that we may ever grow in common understanding and sympathiy, mutual love and admiration, that we may build up the new em-

DUTT, REBTAI RAMAN—*contd.*—DUTTA, PROMODE CHANDRA.

pire civilisation with all that is finest and best in the East and West. The language that has welded the Sikh and the Mahratta, the Madrassi and the Bengali, into one body politic with one impulse and sympathy will unite us all with the Britisher and the Canadian, the African and the Australian, into one fraternity of the future that will stand for the highest civilisation of humanity. English we must know so that we may be able to express ourselves, to plead for ourselves, but it is necessary, at the same time, that we must have sufficient thought and information, law and logic, to express. To sacrifice the one for the other would be a short-sighted policy, and it seems hitherto we have sacrificed much of the latter—*viz.*, thought and information—for the sake of attaining proficiency in English. Indeed, there is a great deal of work to be done amongst ourselves in enlightening all our masses in the way of knowledge, and this can only be done in our vernaculars, and it is more necessary for us to have thought and information, than to master a medium of expression. The highest and widest scope of Indian educational policy is not to Anglicise us, but to Indianise the knowledge of the West. We have necessarily to live upon our vernaculars in our after-University life and, thus, the introduction of the vernacular in the University course would keep up a continuity of our efforts. I should, therefore, think that English should not be the medium of examination and instruction at every stage above the matriculation in the university stage, and I recommend the following changes, that we may know English well enough and have enough of thought and information :—

Matriculation :—

English	. . . . .	Two text-books—two papers.
Bengali	. . . . .	Two text-books—one paper.
Arithmetic	. . . . .	Three papers. In Bengali.
History	. . . . .	
Geography	. . . . .	
Science	. . . . .	
Algebra	. . . . .	One paper. In English.
Geometry	. . . . .	
Sanskrit or Persian	. . . . .	One paper.

College course—I. A., I. Sc., B. A., and B. Sc. :—

I have proposed elsewhere ten papers for the intermediate course and eight papers for the final course. According to my division into groups two papers of the principal subject and one paper of the subsidiary subject will be in Bengali. Two papers in general English literature will be compulsory in the intermediate course in arts and science and one paper on essay compulsory in the final course.

Below the matriculation course in classes V, VI, VII, where I have already proposed absolute freedom to the teacher, and absolute removal of the rigidity of examinations, I lay great stress upon the direct method of teaching English. In the matriculation course, again, almost all the subjects being in Bengali, the student will find more time at his disposal for learning English, and I have, thus, proposed two text-books and two papers. Beginning in this way I am sure the average student's efficiency in English will increase, rather than decline, by the introduction of vernacular papers in the college course.

DUTTA, PROMODE CHANDRA.

(i) No; English should be the optional medium of instruction and examination. A thorough knowledge of English is, however, necessary for all students.

DUTTA, PROMODE CHANDRA—*contd.*—DUTTA, RABINDRA MOHAN.

(ii) (*a*) During the last twenty years I have found that our students' command of English is not adequate. There seems to be no ground for thinking that matters have gone from bad to worse in recent years.

(*b*) English might be made the medium of instruction in the highest two classes only in teaching English.

(*c*) A compulsory text-book in modern prose should be a subject of examination besides unseens and translations. The text-book must not contain, as it, unfortunately, did contain in days gone by, too many allusions to heraldry, classical history, and such other subjects. It should be a modern book.

(*d*) Yes; English literature need form no part of the matriculation course, nor of the B.Sc. course. But the practical use of English should be taught.

(*e*) No.

(*f*) B.Sc.'s and others might study some essays of distinguished scientists, but not Milton nor Shakespeare.

DUTTA, RABINDRA MOHAN.

(i) I do not hold that English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course. English should be kept as one branch of study, and a compulsory branch of study at every stage above the matriculation in the university course. But the medium of instructing or examining in other branches of knowledge, *e.g.* mathematics, physics, philosophy, chemistry, etc., ought to be the vernacular of the district where the college is situated. This will not only facilitate the mastery of the subject by students, but will also remove possibilities of misapprehension and cramming, which many students are constrained to do because they find it difficult to master the English language. This adoption of a vernacular medium for the teaching and examination of branches of language other than English will also liberate a portion of the energy of students, now spent in mastering the medium of instruction, for the advancement and acquisition of knowledge of the subject. The student will, moreover, be in a position to devote his energy to the mastering of one or two languages more (*e.g.*, French or German) which are necessary for higher research work.

(ii) (*b*) In secondary schools also English should be used as the medium of instruction only when teaching the English language; no other subject need be taught in English. The adoption of the English medium in teaching subjects other than English is an unnecessary strain upon the energies of students.

(*c*) The training given in English nowadays, before entrance to the University, is not quite unsatisfactory. But it is possible to improve it. The books dealing with fiction, legends, and mythological stories may be profitably replaced by books that are historical, biographical, or that deal with the present state of the country. The present is always the chief concern of a man; the past is only useful as explaining the present; and the future ideals are useful as giving the proper direction to present activities. From this point of view myths and legends are more or less an intellectual luxury; for the study of these educational institutions may safely trust to the pleasure-seeking nature of man. Educational institutions cannot minister to all the wants of man; they can, at best, minister to his needs in life. From this standpoint the study of the English language, rather than of English literature, ought to be the prime object in secondary schools and books like those written for the People's Library series or the Home University Library series may be recommended for study in the higher classes of secondary schools.

(*d*) For reasons stated above, I would draw a distinction both in school and university between practical training in the use of the English language and training in the study of English literature. I would advocate practical

DUTTA, RABINDRA MOHAN—*contd.*—FAWCUS, G. E.

training in the use of the English language to be made a compulsory course of study in all stages of University education up to the first degree examination. The books of the Home University Library series or the People's Library series, and books of similar nature, will serve very well the purpose of text-books for this course. The object of this course will be chiefly the extension of knowledge of different subjects and the capacity of correctly expressing ideas about different things in English. The study of English literature ought to be an optional course where the chief object of study will be the artistic beauties and defects of English literary works. For such study the courses prescribed nowadays by the existing system will very well serve the purpose.

(*e*) The matriculation examination in all subjects except English ought to be conducted in the vernacular. If this system is adopted a great part of the energy of our young students will be saved for more profitable work. They will not, for instance, be required to spend nine years on a simple course of mathematics simply for inability to express their reasoning in English.

(*f*) I do think that English should be taught to all students during their University course for, otherwise, the doors of modern science, philosophy, history, and, in short, all the golden gains of modern civilisation will be shut against them.

For students whose general course of study may be other than linguistic the course should consist of simple books written in English about their special branch of study, or books of an encyclopædic nature (especially of scientific or contemporary historical or statistical interest) like *The Modern World* books, in short, that will give a fair general idea of the present-day world outside the college walls.

(iii) As my answer to part (i) is in the negative I would recommend that in all stages of the University and pre-University courses the vernacular should be the medium of instruction and examination for all branches of knowledge except English. So far as the teaching of English is concerned it is impracticable to teach our boys in the lower classes of secondary schools through the English medium but in the University classes this can be done without difficulty The examination in English should, of course, except in the lowest classes of secondary schools be always in the English medium. This has been found practicable and profitable, and, without this condition, there will be no useful training in English at all.

FAWCUS, G. E.

(i) Yes.

(ii) (*a*) No.

(*b*) The practice in Bihar and Orissa is to use English as the medium of instruction in the highest four classes. This seems to be satisfactory.

(*c*) No; too much attention appears to be given to set books and too little to acquiring a knowledge of spoken English and to cultivating a facility for speaking and writing English in a simple style. The result is that students when they join colleges, find it difficult to follow the lectures given.

(*d*) Yes; I would do this, if possible, but the process would have to be a gradual one for many English teachers in our schools are unable to speak and write simple English correctly. Any person who has to read much correspondence from matriculates and persons educated to about that standard must be struck by the lack of idiom and the frequent use of stilted phrases taken from the set books which they have read in class when at school or college.

(*e*) Yes; except perhaps in history.

(*f*) Yes; except that, perhaps, if the teaching of English in schools is ever successfully modified on the lines suggested it might become unnecessary for students who take up a non-linguistic course to continue to study English when at college. Such students need facility in speaking and writing simple English, but this it should be possible for them to acquire at school.

FORRESTER, Rev. J. C.—GANGULI, SURENDRA MOHAN—GANGULI, SYAMACHARAN.

FORRESTER, Rev. J. C.

(i) English should be retained as the medium of instruction in colleges.

(ii) (*a*) *Vide* my answer to question 8.

(*b*) English should be retained for all subjects with the exception of history.

(*c*) English should be taught by the direct method in the lower classes, and the best and most highly trained teachers engaged for these classes.

(*d*) I should like to see the distinction made through the whole college course. I suggest that English composition should be compulsory for the intermediate and degree (arts and science), and English literature an optional subject for both the I. A. and B. A.

GANGULI, SURENDRA MOHAN.

(i) It is not necessary that English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course. Vernacular may, and should, be used as the medium. But English is to be used as the medium so long as suitable text-books are not prepared. The preparation and publication of these text-books should be undertaken by the University.

(ii) (*a*) If English is to be used as the medium after the matriculation the knowledge of English possessed by students on their entrance to the University is sufficient, otherwise not.

(*b*) English should by no means be used as the medium of instruction in secondary schools for students preparing for the matriculation, but steps must be taken so that students may learn English well, and arrangements should be made for giving practical training in the use of the English language.

(*c*) The present system of training in English in secondary-schools is not satisfactory. Fixed text-books (both prose and poetry) in English should be compiled and published by the University. These books should contain writings of well-known English authors. More care should be taken to teach grammar, composition, etc., and the reading of extra books. The examination should be a general test of the knowledge in grammar, composition, etc., and should also include questions from the prescribed texts.

(*d*) Certainly there should be a distinction between the kind of training in secondary schools and that in the University. In schools students should learn English as a language, but in the University English should be taught as literature.

(*e*) The matriculation examination in all the subjects should not be conducted in English.

(*f*) A general knowledge of the English language is essential to all University students. Consequently, those students whose general course of study is other than linguistic should undergo a special training in the use of the English language. A good number of interesting books should be prescribed for them, and the examination should include questions for test in general advancement.

GANGULI, SYAMACHARAN.

(i) Yes; I do, and this for three reasons:—

(A) Because such a course I consider necessary to ground our students well in English, a good working knowledge of which is a necessity to our educated men as English is the language of administration in the country, and is also a common medium of intercommunication between Indians speaking different vernaculars.

GANGULI, SYAMACHARAN—*contd.*

(B) Because there is a great wealth of books in English on all subjects in contrast with want or poverty of books on many subjects in Bengali or any other vernacular.

(C) In order that a portion of our college, students may have the benefit of being taught by good European professors.

At some distant day all subjects will, doubtless, come to be taught through the medium of the vernaculars of the land, and English will then be taught, and thoroughly taught, only as a language.

While I hold that all subjects should be taught in colleges through the medium of the English language I think it very desirable that the vernacular equivalents of English technical terms should also be taught so that our educated young men may be able to turn into their vernaculars all that they learn through the medium of English.

(ii) (*a*) I can say nothing about this from personal knowledge. From inquiries made I learn that a very large proportion of students who enter the University possess if not "an adequate command of English" (a phrase which admits of different interpretations), sufficient knowledge of English to understand their English text-books (with help where needed), follow their professors' lectures, and write their class exercises in fair English. The best students write very good English, as the Hindu School and Hare School Magazines testify. But the matriculation standard is altogether much easier than the old entrance standard.

(*b*) I think that English should be used as a medium of instruction in secondary schools only in the teaching of English in the highest four classes, with occasional help from the vernacular, when needed. English technical terms on all subjects should be taught as a preparation for college studies.

(*c*) I am not satisfied "with the training now given in English before entrance to the University". So many as eleven prose books and four poetry books are "recommended to indicate the standard of knowledge to be demanded at the matriculation examination". The list of text-books for the year 1918 is given on pages 357-358 of the University Calendar, part I, for 1916. Whatever may be the value of the prose books for teaching the English language most of them do not impart any useful knowledge or stimulate thought. The idea which underlies the prescription of a large number of books seems to be that much reading is necessary to acquire an adequate knowledge of a language. This does not appear to me to be a sound view. A few books carefully read I consider to be of far greater value than a large number of books run through without proper attention. My experience as a teacher was that the great majority of the pupils failed to remember well the words and phrases they met with in their English text-books and so could not apply them in what they wrote or spoke. A multiplicity of books is rather an embarrassment than a help. Practically, it is impossible for all the books recommended to be read. Nor is it intended that they should be read through out, it seems. Portions of each book only are read. But the books have to be bought for all that. This is a heavy infliction on a poor country like India. I have heard complaints from guardians that they felt it as a great grievance that they had to buy so many books for their wards.

I understand that there is a movement on foot for reverting to fixed text-books and I shall be glad if the movement succeeds. The improvements I have to suggest are:—

(A) Improvement in the quality of the teaching staff,

(B) Well-selected text-books not exceeding the number that can be read in the highest four classes in a school.

(C) More exercising in English speaking and writing than now.

(D) Restriction of essay writing to subjects of which the points are given.

(E) At present, one of the essays to be written at the matriculation examination is of the aforesaid character, and the other has to be written on some subject mentioned. Essay writing of the latter character has a tendency to encourage cramming. Boys learn by heart essays on a number of stock subjects, which is certainly objectionable, though there can be no objection to their reading any number of essays as models.

(*d*) I do draw a distinction, and think that English literature should not count for much at the matriculation examination, but that the English language should count for much.

(*e*) I do not think that the matriculation examination in all subjects should be conducted in English.

(*f*) I do think that English should be taught to all students during their University course. The teaching of English for students whose general course of study may be other than linguistic should concern itself, I think, with the English language, and not with English literature.

GEDDES, PATRICK.

(ii) (*a*) In no country is the knowledge of a foreign language so advanced as that of English in India—which shows, of course, some return for the excessive labour which our too pedantic studies involve. I regard, however, even the amazing fluency and accuracy with which I am familiar as too dearly bought—since conventionalised and conventionalising to all concerned. The best Indian literary English is usually that of writers who have passed less fully through the school and college mill.

(*c*) I feel not simply dissatisfied, but indignant, with the undue importance often attached in current English study, as of Shakespeare and other authors, to obscure, or even obsolete, phrases and terms—which in many cases I have heard all over India and which appears to me too often to push pedantry to tyranny, and this to unreason.

As a kindred instance I record my protest against the setting back by his University (not Calcutta) in two successive years for "failure in English" of a young man (my recent assistant and colleague in investigations) who would be among the best honours graduates in natural science in any university, and who is for all practical purposes as much at home in English as most of us—since "weak in his Anglo-Saxon".

(*d*) While ignorance of English is so obvious a disadvantage that few will fail to acquire reasonable ordinary proficiency, no one can travel in this country without meeting persons of obviously distinguished culture and productivity and hearing of others who come short of this, yet who should not thereby be excluded from the universities. Again, though as a scientific man I have naturally all my life used, and had to use, German, I should resent its absolute imposition (even were this not up to old German authors and older Gothic philology). I hold that no university has a right to act thus, to any save its professed students of philology. I, therefore, welcome the Nizam's initiative of his Usmania University with instruction in Urdu. I even expect that the real and vital uses of English there will not seriously suffer. I also hope to see other vernacular universities; moreover, when these are established, English and its studies will naturally advance in those retaining English, and to a higher standard than is at present possible.

Yet why need any university not be bilingual, or even polyglot, if it pleases? The University teaching of modern languages is already usually conducted in those languages; and students soon rise to the occasion. Accessory tutors are easily found; and lecturers in needed tongues will come forward with the demand for them.

GHOSA, PRATAPCANDRA—GHOSH, BIMAL CHANDRA—GHOSH, DEVAPRASAD

GHOSA, PRATAPCANDRA.

(i) Yes; I do hold that English should be used as the medium of instruction and of examination.

(ii) (*a*) I am afraid not.

(*b*) English should be used as far as possible in secondary schools. Do we not all think in English? Are not our own ideas mostly derived from English? Yes; it may be patriotic to encourage vernacular translations of English books, especially of a technical nature. Such books, in time, would form the foundation for higher edifices, until then I would use English as a medium of instruction.

(*d*) Yes, by all means; practical English is needed for the general student so that he may not burden his writings with big words.

Those who are for the study of English literature should have a different course.

(*e*) Yes.

(*f*) Practical English for general students.

GHOSH, BIMAL CHANDRA.

(i) English should be used as the medium of instruction, *but not of examination*, in all subjects above the matriculation course. Questions in many subjects should be answered in the vernacular at the option of the candidate.

(ii) (*a*) B. Sc.'s, M. Sc.'s, and M. B.'s often betray an inadequate command of English. This seems to indicate that B. A.'s, M. A.'s, and B. L.'s improve their English during the undergraduate course. A better teaching of English in the secondary school is, therefore, required.

(*b*) In the upper three classes English should be used as the medium of instruction.

(*c*) Teachers of English should be specially trained; and teachers of subjects in the first three classes should be well up in English. In the lower classes *the direct method* of teaching English should be adopted.

(*d*) Yes; practical training in the use of the English language should be the primary object in the lower classes of schools. In the matriculation and pre-matriculation classes some introduction to English literature should begin, and in the college classes training in the study of English literature emphasised for arts students. For science students, after the intermediate stage, English composition should be emphasised.

(*e*) At the matriculation examination—except the papers in English language and literature—all other subjects may be dealt with in the vernacular at the option of the candidate.

(*f*) As indicated under (*d*), above, English literature should be insisted upon up to the intermediate standard for all students for degrees :—

(A) Candidates for science degrees should show ability to speak and write English.

(B) Students in technological and medical subjects should, if they have not passed the intermediate standard, have some training in English composition.

(C) Teachers in science subjects and technological subjects should, other things being equal, show a good knowledge of English.

GHOSH, DEVAPRASAD.

(i) English need not be used as the medium of instruction at any stage from the matriculation up to the M.A.; that is to say, professors should be allowed to

GHOSH, DEVAPRASAD—*contd.*—GHOSH, Rai HARI NATH, Bahadur—GHOSH, Dr. JAJNESWAR.

lecture in the vernacular or in English as they think fit or find convenient; there should be no compulsion in the matter.

As regards examination there are subjects in which our vernaculars are not so far developed as to allow answers to be written in them; but there are other subjects, again, in which the vernaculars will do, *e.g.*, history, philosophy, and some of the more liberal subjects. The main principle ought to be that the vernaculars should be favoured and encouraged, as far as practicable, for the learning of a foreign language like English for the purpose of a medium involves much waste of energy.

(ii) (*a*) Students have not an adequate command of English, on their entrance to the University, thanks to the defective nature of the matriculation curriculum in English.

(*b*) English should not be used as the medium of instruction in any class in secondary schools.

(*c*) The kind of training in English received in schools leaves much to be desired; there are no text-books; the whole language is tried to be taught by translations, which is an altogether absurd method; there must be text-books from which questions should be set; and the standard of grammar ought to be higher; the question of cramming will be raised, but I know of no other method (than cramming and mechanical memorising) of learning the grammar of a foreign tongue.

(*c*) The matriculation examination in all subjects should not be conducted in English; the vernacular should be adopted wherever possible, *e.g.*, in mathematics, history, geography, and Sanskrit

(*d*) and (*f*) English should be taught as a language, and not as a literature, to the ordinary run of students who are not going to take up a linguistic career. English, however, ought to be compulsory up to the B. A. and B. Sc. standards; for, apart from its general serviceableness and utility in the present state of our country, English ought to be learnt thoroughly for it brings us in touch with the spirit of Western culture and with modern scientific research.

GHOSH, Rai HARI NATH, Bahadur.

(i) Yes; provided that the matriculation be brought up to a better standard; choice might be given in arithmetic.

(ii) (*a*) No.

(*b*) Yes; chiefly; I would allow some choice in subjects like arithmetic, whilst history might be explained in the vernacular.

(*c*) No; I suggest fixed text-books in English and grammar.

(*d*) I would; elocution is cultivated by practice—study alone would not give it to a student.

(*e*) Yes; when the matriculation itself has been improved.

(*f*) Their own mother tongue.

GHOSH, Dr. JAJNESWAR.

(i) Yes; for some time to come. Subjects like constitutional history, economics, mathematics, Western logic and philosophy, geography and the different sciences require each of them a special vocabulary which does not exist in our vernacular. An academy consisting of savants and authors should work under the auspices of the University to coin and define the terms that are required, and to give them currency by translating standard works and writing good text-books in the vernacular. I am not, of course, in favour of the archaism which rejects all expressions that are foreign and aims at discovering or coining equivalent terms in Bengali. But the spirit and character of the Bengali language will prevent a wholesale importation of English and Latin words, though it can assimilate

GHOSH, Dr. JAJNESWAR—*contd.*—GHOSH, JNANCHANDRA—GHOSH, JNANENDRA CHANDRA.

with comparative facility expressions derived from Sanskrit. So there is much spade work to be done, and till this is done it is desirable in the interests of clearness and precision that English should be used as the medium of instruction and of examination. Nothing is more necessary than the improvement of the vernacular, and the University owes a clear duty to its alumni and to the nation at large in this matter. But the task is of such magnitude and importance that it cannot be taken up by isolated professors in the various affiliated institutions. An attempt by them to teach in their own way in Bengali the different subjects that they profess might result in the growth of a number of scientific patois in the province.

(ii) (*a*) A very large percentage of students does not possess an adequate command of English.

(*c*) No ; probably there may be some improvement if all the higher teachers in recognised schools are graduates of a training college, and have received their instruction in English from European professors. It has been suggested that better results will be obtained if candidates for the matriculation examination are required to study a good text-book in English. But I am convinced that it will directly encourage cramming.

(*d*) Practical training in the use of the English language should be given in secondary schools, as well as some training in the study of English literature, while the latter alone should be the object in colleges for, while facility in speaking and writing good English is an accomplishment which has a market value, the ideas and sentiments that are to be found in English literature are of supreme importance to the scholar and to the man who is preparing for a professional life or for superior service under Government.

GHOSH, JNANCHANDRA.

(i) I think that mixed English and vernacular should be used as the medium of instruction at every stage above the matriculation in the University course. As for the medium of examination, option ought to be given to the intermediate student to answer in his own vernacular in all subjects other than English. For B. A. and M. A. students the medium of examination for the present should be English.

(ii) (*a*) I do not consider that university students have, on their entrance to the University, an adequate command of English.

(*b*) English should not be the medium of instruction in secondary schools for students preparing for the matriculation examination. Everything should be taught through the medium of the vernacular.

(*c*) I am not at all satisfied with the training now given in English before entrance to the University. Examination in English text, both poetry and prose, should be made compulsory. More attention should be paid to the study of English grammar, which is very indifferently taught at present in our schools.

(*d*) I think students should be trained in the practical use of English, but the study of English literature should not be neglected.

(*e*) I do not think that the matriculation examination in all subjects should be conducted in English.

(*f*) I think English should be taught to all students during their University course.

(iii) I think instruction and examination in all subjects except English should be in the vernacular, wherever possible.

GHOSH, JNANENDRA CHANDRA.

(i) Bengali may, with advantage, be used up to the intermediate classes of the University as the medium of instruction and examination. English must remain a compul-

sory second language for all candidates. In the B. A. classes, English should be the medium of instruction as the student who wants to acquire a sound knowledge of a subject will have, perforce, to read standard books on the subject in the English language. Bengali is quite rich in works of fiction and poetry and, to some extent, in books on philosophy. Standard Bengali books on other subjects are, however, very rare. This is a serious drawback and, until it is removed, it would be unwise to introduce the vernaculars wholesale as the medium of University instruction.

GHOSH, Rai Bahadur NISI KANTA.

(i) Yes; English should be the medium of instruction and of examination. It has now become the common language of Indian people.

(ii) (*a*) No; they have not, and it is more for this reason that English should be adopted as the medium.

I expressed my strong views before the members of the University Commission here regarding the insufficient attainments in the English language of the present matriculation students generally under the present system of education in comparison with that of past times. Their attainments are now much inferior to what it was before. Matriculated students who come out successful even in the first division are found to be very poor in English, and many of them cannot write a few sentences together in good and correct English. Their pronunciation and accent are extremely bad; but, still, out of the ten or eleven thousand who passed the last matriculation examination about six thousand and over were placed in the first division; about four thousand and fifty or so were placed in the second, and only about six hundred or less in the third. How can this be explained? Can it be said that the efficiency of teaching has increased? The explanation of this is very simple; that more facilities have been given to pass the examination by the present system, than to acquire sound knowledge. The reasons for this may be briefly stated as follows:—

(A) The absence of prescribed text-books in the matriculation. There is a syllabus recommended for English, but nobody reads it. The other day I questioned a matriculated student who passed in the first division as to the number and the names of the books recommended, but I was astonished to find that he could not name any of them. He plainly admitted that he had never purchased any, nor did he read any, of them for the purpose either of learning or passing the examination.

(B) The present system gives more scope for translation from the vernacular. Matriculation students have now become good translators.

(C) No attention is paid to original composition, reading, and grammar, but students generally pass in English by cramming the *model essays*, *i.e.*, printed books containing various subjects for essay for helping the boys in passing the paper on English essay.

(*b*) In secondary schools the medium of English should be used for instruction more extensively, at least down to three or four classes.

(*c*) No; answers given in (*a*) may be referred to. Besides, there should be prescribed text-books of English grammar and composition. But, if text-books are not prescribed, then students should be required at least to keep a certain percentage of marks in any of the books recommended in the syllabus from which some questions will be set.

(*d*) No; it is not desirable to draw any distinction between them.

(*e*) Yes;

(*f*) Yes, but for those whose course of studies is other than linguistic may be prescribed some such English courses as would help them in their course of studies adopted. B.Sc.'s and M.Sc.'s should also be compelled to read English. But they are now exonerated from reading English under the present system.

GILCHRIST, R. N.—GOSWAMI, BHAGABAT KUMAR, Sastri.

GILCHRIST, R. N.

(i) Yes; but I regard this matter as mainly one for the people of Bengal themselves. Politically and educationally English should be the medium. It is already the *lingua franca* of India. I consider every examination above the matriculation course should be conducted in the medium of instruction, whatever the medium may be.

(ii) (*a*) They have not an adequate command of English. This is answered more fully elsewhere.

(*b*) My opinion is that bilingual instruction is necessary up to the present matriculation stage, and that the student should be fit at the present matriculation stage (or my proposed school-leaving stage) to have all his instruction and examination in English in the new University entrance classes, as proposed in my answer to question 8.

(*c*) and (*d*) Certainly not; the training in English language is subservient to training in "spotted" examination questions in grammar and to memorising essays. Practically, no student has any real facility in speaking or writing English when he enters the University. I have never been an examiner in the Matriculation, but I should think that, were statistics compiled on grammar questions and language questions, the great proportion of boys would pass in the former and fail in the latter. Much depends on the separation of English language and literature. Literature cannot be studied with any benefit till the language has been mastered. What is primarily wanted is, on the part of the student, a knowledge of how to write clear English prose and speak clear, intelligible English. I have no place in my scheme of University work for *Skylarks*, *Ancient Mariners*, *Comuses*, *Tasks*, or Shakespeare's plays till students can read so as to understand a column of the *Statesman* and speak to me without having obviously to translate every sentence and conjugate every verb before opening their mouths. To my mind, the plays of Shaw, Pinero, or Jones would give a better command of English than the various *selections* with which we are so familiar. Good modern novels would help infinitely more than *Macbeth*. The present B.A. frequently would be more intelligible to Shakespeare's contemporaries than to moderns. First, a grasp of the language is necessary; the appreciation of literature will follow.

(*e*) I consider that in my scheme the science of literature examination might be, as at present, optionally bilingual. The University entrance examination should definitely be unilingual, *i.e.*, in the medium of instruction English.

(*f*) I consider English should be taught during the whole course, *i.e.*, to the degree stage, only until the entrance qualifications make it unnecessary. Training in language as distinct from literature is necessary.

GOSWAMI, BHAGABAT KUMAR, Sastri.

(i) Certainly not; instruction is transmission of thoughts from one to another. A foreign language is the most unnatural medium for such transmission and exchange of ideas. When a teacher employs such a vehicle he really employs a double medium, and the student receives the instruction as reflected, and sometimes coloured, and possibly distorted, in its passage through such a double medium. Generally speaking, a teacher must think essentially in his native language; he then renders it automatically by regular practice into English (as is now done), the student listens to the expression in English, strives to render it quickly into his own language, and then assimilates it if possible. The time and energy that are employed for this purpose are certainly more than are required in a natural system of education. From its nature it is less impressive, less effective. The sooner such a system is done away with the better.

GOSWAMI, BHAGABAT KUMAR, Sastri—*contd.*—GOSWAMI, Rai Sahib BIDHUBHUSAN—GOSWAMY, HARIDAS.

(ii) (*b*) Only partially, in learning the English language.
(*c*) The kind of training now given will do if the vernacular is adopted as the general medium of giving instruction.
(*d*) Of course there is a difference.
(*e*) No.
(*f*) Yes; a knowledge of the language is necessary for 'State purposes' as well as for communication with the rest of India and the outer world.

(iii) In infant classes the vernacular should be the sole medium. Higher up English should be the partial medium in English language and literature, and in subjects essentially English (or European), *e.g.*, such portions of European philosophy economics, and such other subjects as treat of conceptions readily lending themselves to expressions in English.

GOSWAMI, Rai Sahib BIDHUBHUSAN.

(i) Yes.

(ii) (*a*) A large majority of students does not possess an adequate command of English.
(*b*) In secondary schools students preparing for the matriculation examination should be taught all subjects (except English) through the medium of their own vernacular up to class VIII (third class). In classes IX and X (second and first classes), the medium of instruction should be English (except a classical language and a vernacular).
(*c*) No; all students must be so trained that they can fairly express their thoughts in English; that they have a wider acquaintance with standard English writers whose writings are suited to their capacities, such as Goldsmith, Addison, Swift, etc.; that they can talk in English with some fluency; and that they make a thorough study of some standard book on English grammar. To help them in acquiring a fair amount of grounding in English, history should be made a compulsory subject of their course in the first two classes. A study of books of tales and travels should be encouraged.
(*d*) In the school stage greater stress should be laid upon practical training in English, that is to say, the acquisition of the power of expressing one's thoughts clearly in English, and of talking in English with some degree of fluency. This habit once acquired will continue in the University stage, and there will be greater opportunity for encouraging literary training or the study of English literature.
(*e*) Yes; in all subjects except a classical language and a vernacular.
(*f*) Yes; in the B.Sc. and M.Sc. examinations where the general course of study is not linguistic advanced scientific readers, discourses, or dissertations may be prescribed as text-books, instead of purely literary works. But this course is not to be adopted in the I.Sc. examination, where the general course of study should not be non-linguistic.

GOSWAMY, HARIDAS.

(i) Yes; in the peculiar circumstances of our country it is necessary.

(ii) (*a*) No.
(*b*) English should be the medium of instruction during the last four years of study in secondary schools, as at present organised, in the teaching of English and other allied subjects, but not in the classics.
(*c*) No; the power of reading, writing, and speaking is not properly developed. Faulty methods of teaching and examination (and many teachers live to satisfy the examiners) leave the average Indian boy, after years of study,

GOSWAMY, HARIDAS—*contd.*

dumb and inarticulate, groping for words wherewith to decently clothe a intelligent oral reply to the simplest questions touching daily life and unabl to compose, or even read, in the English language shortly after leavin school. English begun in the school and continued in the college as a task i remembered and avoided as a task in after life. The habit of easy intelligen reading, of reading without tears, as a source of culture, or to obtain inform ation, is, in very many cases, left lacking in our results.

The recommendations recently submitted by the Modern Language Associa tion to the Government Committee on Modern Languages in England defin the aims of instruction in a modern language as follows :—

"(1) The cultivation of correctness and fluency in the spoken and writte language.

(2) The cultivation of the capacity to read and appreciate the best literatur in the language.

(3) The imparting of accurate information about the people and thei land :—

(i) Daily life and ways, character and ideas.
(ii) Geography.
(iii) History."

Recognising the twofold nature of the task the course in English should therefore, be divided into *literary* and *linguistic* :—

(A) Two parallel series of reading books differentiated by their objects and methods, but linked up by their subject matter, should be introduced, the first, of texts of high literary merit suited to the capacities of school students or having reference to the life, character, and history of the foreign nation; and the second, of a few graduated reading books sufficient, for the whole school course and made up of extracts, each complete in itself, to serve as the basis of exercises in speaking and writing, in grammar and vocabulary.

(B) Recitation has been neglected of late years. A *canon* of suitable graduated poems to be learned by heart should be prepared and made available for use. Some prose pieces, not long, should occasionally be committed to memory as models of style and recited with suitable intonation and expression by the class.

(C) There should be less of translation into English, and more of the inverse process for the benefit of the mother tongue. In translation into English sentences are constructed on the model of the native, and this encourages slovenly speech. At present, undue importance is attached to translation.

(D) English classes should be kept small as much individual work on the part of the pupil, and much individual attention by the teacher, is required. It is not possible to take a class of 40 or 50 pupils satisfactorily.

(E) Instruction in the foreign language should be preceded by thorough instruction in the mother tongue; otherwise, much of the teaching is in effective or becomes an arduous task. Our students are deficient in this respect.

(F) Instruction in the literature, history, and geography of one's own country is the only sound basis for instruction in the *humanities* in the foreign language, and there is not adequate provision for this at present.

(G) *All examinations in English should include an oral test in conversation, reading, and dictation.*

(H) None but thoroughly qualified teachers should be allowed to teach English. The recent improvements in the method of teaching English or any other foreign language are not known to, or at best only imperfectly grasped by, many of the teachers.

(I) Short holiday courses in the method of teaching English should be organised for their benefit and travelling bursaries should be allowed to them to enable them to see the teaching of English in the schools where such teaching has succeeded most, or is carried on under the most favourable conditions.

(*d*) As the aim of teaching English should be largely humanistic the training in English, both in school and university, should involve both these elements. *vide* my answer to (*c*). *Supra*.

In all cases where technical or commercial specialisation is deemed necessary this special training should be reserved for the end of the course.

(*e*) Yes.

(*f*) Yes; the main thing in education is to develop the pupil's humanity. Whatever the subject, educationists now lay more stress on the pupil himself than on the subject he studies. If we keep the human boy in view it must be admitted that both science and letters must contribute to a complete education. Besides, he cannot have the necessary scientific and technical literature in his own vernacular. He has to obtain information from books in the foreign languages. But literature should be taught differently to pupils according as their interests are different. We all recognise the difference between the appreciation of music and the power of musical performance. The same distinction between appreciation and execution should obtain in the teaching of English to students who follow a linguistic and literary course of studies, and those who follow a course other than linguistic. In the latter case, the aim must be not only to teach them to read and write and speak, to obtain and communicate information on scientific or technical subjects, but also to teach them to appreciate literature.

GRAY, Dr. J. HENRY.

(i) Yes.

(ii) (*a*) It is *comprehensive* enough.

(*b*) The vernacular should be the medium of instruction, with practical English as a second subject till the last three years of secondary school life, when the process should be reversed.

(*d*) Yes; English literature only in the University.

(*e*) Yes.

(*f*) Yes; to students not in linguistic courses practical English.

GRIFFITH, W. E.

(1) The general position of the English language in India needs consideration before any conclusion can be reached.

English is the language of Government all over India. If English ceased to be the medium of instruction in colleges what would be the effect on the various provinces? The colleges of each province would teach a different language, and no common language (as English has become) for the whole of India would exist.

English has been the medium of instruction in the high schools and the universities of India for at least the last fifty years The language is in general use among the educated classes of India, and every year sees it spoken still more widely.

Indian parents everywhere desire their children to learn English. Even amongst the guardians of children who attend primary schools the same desire is shown; and often the inclusion or exclusion of English decides the success or failure of a school. The guardians feel that unless their children have a knowledge of English they cannot gain the position in life which, otherwise, they might obtain.

A much wider knowledge can be obtained from books written in English than from books written in Bengali. If books written in Bengali were substituted for those written in English general educational progress would be far slower even than it is at present.

Again, the English language to the Bengali boy is not on the same footing as Latin to the English boy. English is a living language, and the Bengali boy hears it spoken wherever he goes.

After consideration of all these circumstances I am of opinion that English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course. It may be objected that the average student will think more clearly in his own language and, therefore, thus become a better educated man. I do not think that this would be the case if the schools were staffed with properly qualified teachers.

(ii) (*a*) The average University student, on his entrance to the University, does not at present possess an adequate command of English.

I consider that the defect is due not so much to the language, as to the school system. Two changes should give the desired effect.

In the first place, English should be taught in all the classes of schools. In a high school there are twelve classes. English should be taught as a special subject in the six lower classes ; and it should be the medium of instruction in the six higher classes. At first, a mixture of English and Bengali would become the medium in the six higher classes ; but this would soon give way to the English medium.

In the second place, properly qualified teachers should be provided for the schools. Such teachers would, by their methods of teaching, enable the average child to learn through the medium of English after the end of his sixth year of school life.

(*b*) English should be used as the medium of instruction in all subjects for those students who are being prepared for the matriculation. This is the present system. It is true that much of the teaching is imparted by means of an admixture of English and Bengali ; but this would cease, and English would gradually predominate as better qualified teachers were provided.

(*c*) I am not satisfied with the kind of training now given in English before entrance to the University ; in the majority of cases it is unsystematic.

In the six lower classes English should be taught by the " direct method". The lessons should mainly be conversational ; but, in each class, an English reading book should be introduced. Teachers should draw up definite syllabuses at the beginning of each month, and work according to them.

In the six higher classes English would be the medium of instruction. Far more English reading would be done here than in the lower classes ; and in the two highest classes a beginning would be made of the study of English literature.

(*e*) I think that the matriculation examination in all subjects should be conducted in English. I would again say that I do not consider English to be the real difficulty ; it is the lack of properly qualified teachers.

GUHA, JATINDRA CHANDRA.

(i) The practice in vogue at present amongst the teachers in colleges is to lecture to their classes in English ; but there is no bar, so far as I know, to their using the vernacular for the same purpose excepting the force of a fixed practice and tradition in favour of the use of English ; and I know of some teachers who make use of a happy mixture of English and the vernacular while teaching their classes. The peculiar advantage of this practice is that those English terms and phrases for which there are no suitable equivalents in the verna-

GUHA, JATINDRA CHANDRA—*contd.*

cular may be given in their native form, while the rest of the lecture may be delivered in the vernacular, which must make a quicker and clearer impression upon the mind of the student than a foreign tongue. The knowledge of English possessed by students at the early stages of their college career is too meagre to enable them to follow lectures well in that tongue; so the vernacular should be the medium of instruction at least in the intermediate classes of the college; in which case knowledge could be imparted with greater facility and definiteness. Examinations, however, should be conducted in English, for the vernaculars of this country being yet in a state of imperfect development, and students possessing very little literary knowledge of them, they would, in most cases, find it difficult to write their answers in their vernacular in a correct and refined style. The goal of the University, however, should be to introduce text-books written in the vernacular whenever practicable, and when it is possible to replace all the present text-books by vernacular ones the vernacular may take the place of English in regard to both examination and instruction in all subjects except those of English language and literature. The medium of instruction and of examination in secondary schools should be the vernacular throughout. But in order to guard against English being neglected, greater attention should be paid to the language side of it (*viz.*, grammar, composition, translation, etc.) in the higher classes of schools; and special arrangements should be made in the lower classes for giving practical training to students in the use of the English language. Those who advocate teaching through the medium of English contend in favour of it that students get more familiarised with English through the reading of their text-books written in that language, and through constantly listening to the words of their teachers spoken in it. But it may be said in reply to them that the cause of sound knowledge ought not to be sacrificed to the object of acquiring a good knowledge of English. Besides this, the mere reading of a few text-books on a limited number of non-literary subjects written in English, and listening to expositions of those subjects in English, cannot give the student a wide command of the English language. To learn to use correct and idiomatic English it is necessary that he should live habitually in an atmosphere where English is the spoken language. English warm with felings and emotions and uttered with all the accompaniments of expressive gestures and motions, is instinct with a peculiar force and life that appeal most powerfully to the mind. The work done in English in the class-room can be but a poor substitute as an agency for teaching English for the living spirit of English that one finds in its own native atmosphere. The reading of a few select text-books on English literature and language, and a special course of practical training in writing and speaking English, would be quite enough to teach a boy as much of English as he can possibly learn at school. The direct method of teaching English, as far as our schools are concerned, cannot, from the very nature of things, mean anything but a travesty of the real thing, for we cannot make our boys live habitually in an atmosphere of English, and also cannot provide for the teaching of English in the school-classes by Englishmen. The kind of direct method that is being used in some schools can but enlarge the vocabulary of the learner a little, but it cannot familiarise him with the structure and configuration of English sentences. It is only practical training in the lower classes which will emphasise the memorising of idiomatic sentences and constructions showing the peculiar genius and morphology of the English language that can do this. This method takes a middle course between the scholastic and the colloquial methods, studiously avoiding both dialogues and grammars at first and is, I think, the only method suited to the peculiar conditions of our school education. In the college classes also more importance should be attached to the language side of English than to the literature side. Grammar and composition are almost entirely neglected here though students are

very ill-grounded in them. So, if they give more attention to these they will be better equipped with that kind of knowledge of English which they will require in the practical businesses of life. The little of rhetoric and prosody which is taught in the intermediate classes at present, and which includes only the definitions of a few figures of speech and a few rules of scanning, is of very little use to them in improving their knowledge of English.

GUHA, RAJANIKANTA.

(i) For the present, yes; but steps should be taken for the gradual introduction of Bengali as the medium of instruction for Bengali students at every stage above the matriculation in the University course, retaining English as a compulsory subject for the intermediate and B.A. examinations. What Sir John Seeley says in his *Expansion of England* is worthy of note:—"If India is really to be enlightened evidently it must be through the medium neither of Sanskrit nor of English, but of the vernaculars—that is, Hindustani, Hindi, Bengali, etc.". It may not be possible for half a century more to teach science and mathematics in their higher branches in the vernaculars of Bengal, but logic and history, for the intermediate examination at any rate, need not wait so long.

(ii) (*a*) Very many of them have not.

(*b*) Text-books in English should form, as now, a compulsory subject; the medium of instruction in mathematics, history, and other subjects should be the vernacular of the pupil.

(*c*) No; greater attention should be paid to dictation and penmanship; and English grammar should be carefully taught, as it used to be before the introduction of the present regulations.

(*d*) Yes.

(*e*) No; the examination in history, mathematics, and the classics should be conducted in the vernacular of the candidate.

(*f*) Yes; an exception being made in favour of those who go in for the higher examinations in science and mathematics.

Various objections are urged against the scheme of making Bengali the medium of instruction in Bengal. I shall try to meet only two of them. It is feared by many eminent educationists that if the proposal were given effect to our students would not acquire that mastery of the English language without which no educated Indian can hope to make his mark in the present day, and without which higher university training itself would become ineffective or nugatory to a large section of our young men. I do not appreciate the force of this objection. In the first place, the mastery of the English language is not the be-all and the end-all of existence to a man. In many of the avocations a working knowledge of English is quite enough. Even in the learned professions it is possible for an Indian to attain to distinction without being able to speak and write English like an Englishman. Then, again, if part of the time and labour now devoted to the study of history, mathematics, and logic in a foreign tongue could be set free and added to the toilsome process of the learning of English I do not see why our undergraduates should fail to have even that minimum stock of knowledge of the English language which would enable them to prosecute successfully their higher university studies. To think in one language and to speak and write in another is not a normal condition for any man. If an abnormal system has done so much good, as it is admitted on all hands it has, the reversion to a normal state of things cannot do worse.

A second objection is the lack of suitable text-books in the vernaculars. My answer to this is that the supply will follow the demand.

GUNN, J. W.—GUPTA, AMRITA LAL—GUPTA, BIPIN BEHARI.

GUNN, J. W.

(i) Yes; my reason is that, under existing conditions, a good knowledge of English is a matter of "bread and butter" and, however much one may smile occasionally at quaint specimens of "Babu English," it cannot be denied that under the present system the average Bengali with an English education has a far better knowledge of that language than the average Englishman has of any foreign language he may have learnt at school. Moreover, English is rapidly becoming the much needed *lingua franca* of educated India.

(ii) (*a*) No; the difficulty may be obviated by making the English course for the matriculation and I.A. purely modern, classical English being deferred till the B.A. course, and by teaching up to the I.A. in a few selected schools.

(*b*) In view of the opinion expressed in (i), above, no change in the present system is desirable or necessary. The teaching of English as a separate subject will not ensure the required degree of proficiency until the methods of teaching have been vastly improved.

(*c*) No; as indicated in (*a*), above, the course should be restricted to modern English.

(*d*) Yes; the matriculation and I.A. courses should concentrate on the former.

(*e*) Yes.

GUPTA, AMRITA LAL.

(i) English should not be used as the one medium of instruction and of examination at every stage above the matriculation. Even in teaching European languages and European histories, including English, where English should be the medium, the vernacular may be used where necessary. In scientific subjects English technical terms should be freely used, either written in English character or transliterated, till either the terms themselves are naturalised or suitable and easily intelligible till vernacular equivalents are found. Even if it were possible in the distant future to replace the mother tongue of a vast population with a cultural tradition behind by a foreign medium of instruction it can seldom be a laudable object of desire for the following reasons:—

(A) It smothers all native originality and genius.

(B) Though by constant practice the habit of speaking and writing English may be acquired yet habit is only second nature, and not nature itself.

(C) A thorough acquaintance with the genius of a foreign language is possible for the few and even, in such cases, it is sometimes precarious, but the time and energy spent in the laborious courting of such acquaintance by the majority may be far better utilised in the direct acquisition of knowledge.

(D) Moreover, experience shows that a foreign medium tends to create and widen an undesirable gulf between the educated classes and the masses at large.

English being the State language it is essential that provision should be made not only for a practical training in the use of the English language at every stage of university education from the matriculation to graduation, but also for a training in the study of English literature in the honours and post-graduate classes. On no account should English be dislodged from its first place as a compulsory subject till graduation.

GUPTA, BIPIN BEHARI.

(i) I do not hold that English should be used as the medium of instruction and of examination at every stage above the matriculation. The present system is too

artificial and almost absurd. I wonder if anywhere else in the world an intellectual atmosphere has ever been sought to be created by imparting knowledge through the medium of a foreign language.

(ii) (*b*) English should never be used as the medium of instruction in secondary schools even for those students who are being prepared for the matriculation. Even while reading English text-books a teacher ought to make it a point to convey ideas in English prose or verse to students not in English, but in the vernacular of the province; for he should be more concerned with the training of the intellect than with making the student grapple with strange idioms and stranger involutions of sentences. Students must not be made to feel that they are compelled to worship strange forms in a strange tabernacle before priests chanting *mantras* in strange formulas which are supposed to have some mystic influence upon the character of the training they receive. Under the present system, you ask Bengali lads to explain English passages in English. Either some sort of an explanation must have been hammered into their brains by some teacher at school or at home, or they are driven to indulge in howlers. Where is the necessity for all this?

(*c*) Boys now hardly get a training in English in secondary schools; they are coached to pass some examination.

(iii) Let English be a secondary subject at school and in the colleges; ample provision should be made for training the intellect in the intricacies of the language at school; and let there be ample freedom in every college for regulating the study of English literature.

GUPTA, SATYENDRANATH.

The following answer has reference to secondary education only.

(i) Yes.

(ii) (*a*) The answer is in the affirmative in the case of students who have been educated in schools where English is taught according to the direct method from the lowest class. In the case of other students the answer is in the negative.

(*b*) From the fourth class upwards.

(*c*) Boys should be exercised in conversational English from the last class. The teaching of this subject should be mainly by the direct method; critical study of this language is also necessary.

(*d*) Yes; both are necessary.

(*e*) Yes; except in Sanskrit and Bengali.

GUPTA, UMES CHANDRA.

(i) Yes.

(ii) (*a*) Yes; but a little more knowledge of English is desirable, and I give my suggestions and opinions on this point in answer to (*c*).

(*b*) Up to class VII all other subjects except English ought to be taught through the medium of native languages; but English ought to be taught in the lower classes along with these other subjects, but from class VIII all subjects are to be taught in English.

(*c*) A little more English ought to be learnt by boys. In order to learn English better boys in school classes ought to learn by heart some "spelling books" as was in vogue before, and the book read was Murray's "Spelling Book" published by the Calcutta School Book Society; so that all boys may be able with facility to read all English books. Though cramming is discouraged nowadays, still, in learning a foreign tongue, it is unavoidable. At present "spelling" as "spelling" is not taught to discourage cramming, but, as I have said above, such cramming is unavoidable. Even

GUPTA, UMES CHANDRA—*contd.*—HALDAR, Dr. HIRALAL.

Indians are to get by heart "Amarkose Dictionary" and some grammar to learn Sanskrit as the language is a dead one. Boys now learn the spelling of particular words as they meet them in their text-books taught in their classes, and the quantity of such studies is very limited.

Some large books of history, such as Marshman's "History of India", ought to be standard books for the matriculation examination, and the history of Bengal, by the same author, ought to be a standard book for class VIII. The study of such books will enable boys to be more acquainted with the English language. The present text-books on history are very small. Boys learn very little of the English language through the medium of history, as was done before. I suggest that, to increase the quantity of reading the English language in school classes, boys in class VIII ought to read English translations of the ***Mahabharat*** and ***Ramayan*** and Muhammadan boys some English translations of Persian books so that, the thoughts being familiar, boys will learn more of the English language in a shorter time.

(*d*) Not in the school, but in the University.

(*e*) Those boys who do not desire to enter the University for poverty or other reasons may be examined in all other subjects except English in the vernacular, but with those boys who desire to get university education the examination in their case ought to be conducted in English in all subjects, except that the examination in Sanskrit or Bengali and other Indian languages ought to be conducted as at present.

(*f*) Yes; the present system of pass-course study is sufficient.

HALDAR, Dr. HIRALAL.

(i) I am strongly of opinion that English should be used as the medium of instruction and of examination at every stage above the Matriculation in the University course. To do anything likely to weaken the knowledge of English of our students would be disastrous to the best interests of the country. I am aware of a movement in Bengal which has for its aim the substitution of Bengali for English as the medium of instruction. This is, to some extent, one of the many expressions of the chauvinism which is such a marked feature of the Bengal of to-day. But I see no reason for changing the system which the pioneers of English education in this country adopted after much deliberation. The analogy of other countries is misleading. The conditions of India are peculiar, and what may be fitting elsewhere is not so here. India is a part of the British Empire, and the most important bond which connects it with that Empire is the English language. The leading citizens of India must be in close touch with the ideals, culture, and civilisation of the West and this is possible only through the medium of English. I shall, no doubt, be told that English will continue to be taught as before. But it must not be forgotten that students learn English not merely by studying the prescribed text-books in that language, but also by reading books on other subjects written in English and because English is the medium of instruction and of examination. Even so a considerable proportion of students do not properly understand the books recommended by the University because of their imperfect knowledge of the language in which they are written. This state of things will only be aggravated if the proposed change is carried out. Further, in the interests of the Bengali language itself, it is necessary that our students should be well grounded in English. Bengali literature has been enriched only by men who knew English thoroughly well. I am not aware of a single distinguished Bengali prose writer without any knowledge of English. Where, for example, would Sir Rabindra Nath Tagore have been if his culture had been purely indigenous and if he did not draw his inspiration from the art and literature of the West?

(ii) I do not think that University students have, on their entrance to the University, an adequate command of English. This has specially been the case since the new regulations came into force.

(iii) English should be used as the medium of instruction in secondary schools in the first four classes.

HALDAR, UMES CHANDRA.

(i) No.

(ii) (*b*) The vernacular should be the medium of instruction in all the subjects except English, in which instruction to the first four classes of a high school should be given through the medium of English.

(*c*) No; please see my answer to question 8.

(*d*) In the school there should be no distinction.

(*e*) It should be conducted in the vernacular in all subjects except English.

(*f*) No; students who take up the purely scientific course for their degree examinations may not be compelled to take up English.

(iii) Instruction in all the subjects except English should be imparted through the medium of the vernacular. If, at present, it be found impracticable, steps should be taken to introduce it gradually. In the pre-University stage the vernacular should be the medium of instruction in all the subjects except English.

HAQ, Khan Sahib Maulvi Kazi ZAHIRAL.

(i) Yes; English should, by all means, be used as the medium of instruction and of examination at every stage in the University course.

(ii) (*a*) I am afraid they have not.

(*b*) From class VII upwards in secondary schools the medium of instruction should be chiefly English, allowing a degree of freedom to teachers to use the vernaculars where necessary.

(*c*) No; the present system aims at training students with an adequate command of English, but the means applied for training are defective, and those for testing the standard of efficiency actually secured are of a very superficial nature.

I beg to suggest the following improvements:—

(A) The aim should be the study of English literature chiefly, and not of the language only.

(B) The standard of testing should be raised.

(C) To limit the area of control of the examining body.

(*d*) Yes; I do. I have already said that our aim should be chiefly the study of English as a literature, to study and profit by the writings of the great thinkers of England.

(*e*) Yes; except perhaps in the vernaculars.

(*f*) Yes; the medium of studies for students other than those whose general course of study is linguistic should be English. There will be no difficulty in this system if a properly framed course of studies in English is introduced into high schools preparing students for the matriculation examination.

HARLEY, A. H.

(i) The problem of the vernaculars in Bengal concerns itself with Bengali and Urdu only. Bengali being the chief vernacular of the province a foreign student would be obliged to learn it as a preliminary to his understanding the lectures were

it the medium of instruction. Urdu is the *lingua franca* of India and, further, has pride of place in the affections of the Muhammadans of the large towns particularly, but now that the Muhammadans of the villages have entered the ranks of students it seems likely that Bengali will come to occupy a larger place among educated Muhammadans, especially as it is strongly felt in some quarters that it is needed in ordinary competition with the Hindus. At the same time, those Muhammadans of the province who cling to Urdu and refuse to learn Bengali are numerous enough to require that for some time to come at least education in the Calcutta University should be through the medium of English and, in the circumstances, I am obliged to represent that English should remain the medium.

(ii) (*a*) Students do not have a sufficient command of English at the present entrance stage. Under the proposed system they would have.

(*b*) English should be the medium in the four upper classes of the school.

(*c*) There should be more attention paid to composition and home exercises, but in Muhammadan institutions a feature which is more at fault than the method of teaching is that teachers stay only long enough to gain teaching experience and then find employment in some more lucrative calling.

(*d*) In school emphasis should be laid almost entirely, on a practical training in English. The study of the literature is not essential at this stage.

(*e*) As the student would have a competent knowledge of English by the time he reached the matriculation stage I would advise that the answers be given in English.

HAY, Dr. ALFRED.

(i) I am strongly of opinion that English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course. If this is not done the student will not be in a position to make use of the wealth of literature which exists in the English language on every subject forming part of a university course, and he will be quite unable to keep himself up to date by following modern developments. Students should be particularly encouraged to cultivate the art of expressing themselves with clearness and precision, and more stress should be laid on this than on a knowledge of English literature.

HAZRA, JOGENDRA NATH.

(i) English should be generally the medium of instruction and of examination in the University course. But, where possible, teachers should be permitted, rather encouraged, to lecture in pure Bengali, and when a suitable book on any subject has been published in a vernacular, and approved by the board of studies, it should be selected as an alternative text-book in that subject. In this way steps should be taken to introduce the vernacular gradually (but slowly and steadily) as an alternative medium of instruction in the University. But, as Indian vernaculars are not yet sufficiently developed to be an adequate vehicle of our thoughts, in many cases English must continue for a long time to be the chief medium of instruction and of examination. But it is to be remembered that our main source of knowledge is books written in the English language. So a sufficient command of the English language is essential for the prosecution of our University study.

The aims of the University should be to make its students express their thoughts with equal ease both in the vernacular and in English.

HAZRA, JOGENDRA NATH—*contd.*—HOLLAND, Rev. W. E. S.

(ii) (*a*) University students have not, on their entrance to the University, an adequate command of English.

As all the studies of the University are to be carried on through English a student who does not start with a competent knowledge of English is heavily handicapped from the beginning, and this drawback will continue to hinder his progress throughout his college career. Therefore, the high English schools are to be so organised that the standard of English enforced therein should be raised to the level of efficiency required by the nature of university work.

(*b*) Matriculation students should be taught the vernacular, classical language, history, and geography in the vernacular. The rest should be taught through the medium of English in the first three classes.

(*c*) The training now given in the use of the English language and literature is not satisfactory. This can be remedied by the introduction of the direct method of English teaching by teachers specially trained for the purpose. At present, the four lowest classes are sadly neglected. They should be under really qualified teachers.

(*d*) There should be a distinction, both in schools and in the University, between a practical training in the use of the English language and a training in the study of English literature.

(*e*) No; the matriculation examination in English, mathematics, mechanics and physical geography should be conducted in English and the other subjects in the vernacular.

(*f*) A practical training in the use of the English language should be given to those students whose general course of study may be other than linguistic. The object of this practical training is to enable a student to write systematically in good English what he has got to say on a particular subject of his study.

HOLLAND, Rev. W. E. S.

(i) and (iii) I would advocate a much larger use of the vernacular in university education so that alternately it may become the principal medium of education. I consider that a chief reason for the lamentably low standards attained in certain directions is due to the difficulty of the medium of instruction. It probably is also not without its effects on the intellectual attainment and capacity of our teaching staff. I consider the Bengali student to be the equal in intellectual powers of the students of an English university; and in diligence he is hard to rival. Yet the text-books in classical history at the I.A. stage include Smith's "Smaller Histories of Greece and Rome". A large part of college teaching and learning is concerned with understanding the meaning of the English words in which the subject is being studied. There is the less time and strength for the attainments of high standards in the subject itself. I consider that the large number of failures at each successive stage in the University course is due to the same cause. The advance in standard in the particular subject that may naturally be expected at the end of a two-years' course is too much when the difficulty of the medium is borne in mind. Further, freshness and keenness of interest in a particular subject evaporate when the medium through which it is studied interposes such difficulty. The issue is not confined to the mere difficulty of the medium. The whole setting of many of our curricula is so foreign that a subject is learned, not assimilated Take philosophy. There is probably no branch of learning for which India is (beyond all question) naturally more gifted and disposed. But, instead of starting with the philosophical thought of India, and moving along the (generally pantheistic) channels through which the Indian mind naturally works, leading on to a study of Western philosophy by means of carefully related resemblances and differences, we start with Plato and

HOLLAND, Rev. W. E. S.—*contd.*—HOLMES, Rev. W. H. G.

Aristotle, and so on down the list of European philosophers. A new era of philosophical advance will open the day when philosophy begins to be taught in the vernacular, using the vocabulary of Sanskrit instead of Western philosophy.

We insert slice-wise into the Indian memory (not mind), a great chunk of Western philosophy. It is nowhere related to the system through which he naturally thinks. No channels are laid down for the passage of his thought from one system to the other. The result is he learns our philosophy, but he never thinks it. Our philosophic courses are, in effect, the history of philosophy. And so in nearly a century of our Western education we have not produced a single Indian philosopher of European reputation. A distinguished Indian student who had attained the highest honours in an Indian university told me he could remember the moment and the room in Oxford when he began to think. Enquiries from staff and students alike have revealed the fact that they do almost all their thinking in the vernacular. To be educated in a language which is not the vehicle of thought must cramp intellectual development in all kinds of ways. The foreignness of our whole curricula sterilises our best Indian minds.

To return to the language of instruction. Bengal has a larger population than Japan. Yet Japan, by use of the vernacular, has built up an educational system that commands the respect of the West. Bengali, Hindi, Marathi, Tamil, and Telugu (with perhaps Gujarati, Malayalam, and Kanarese) would provide most inhabitants of India with at least a quasi-vernacular. And the first three would educate more than 200 millions of India's population.

I consider that the standard of English as a subject of study should remain pretty much where it is. Further, a sufficient working knowledge of English should be required to enable the student to read and understand the literature of the West. He should be able to study the best works in English on his subject just as many Englishmen can study works in French or Latin. Such a practical working knowledge of English is, further, absolutely requisite for political reasons. But that is no reason why the student should be lectured to or examined in English. If he is to think he will think most freely and fruitfully in his own language.

I should, therefore, require the standard in the school of English literature to remain much as at present. I should demand of all university students such a practical knowledge of English as to enable them to study English writings. And I should allow English as an optional language of instruction and examination. I should allow any lecture and examination papers, other than those in English literature, to be done in the vernacular. Let the student of English history read English historical works. But, let him, if he likes, express his answers in the vernacular. And let his lecturer teach him in the same.

There will be a new outburst of intellectual life in Bengal when throughout their education they think and express themselves in the vernacular. And for its teachers, except in English literature, Bengal need be no more dependent upon England than is Japan.

HOLMES, Rev. W. H. G.

(i) Yes. (But I could wish it were possible to found vernacular higher education and a vernacular university in the province.)

(ii) (*a*) Most inadequate; they can neither speak it nor understand it. I have to interview hundreds of students who have just passed the matriculation examination. Bad as my Bengali is they understand it better than they understand my English. They cannot possibly follow lectures given in English and the dictation and learn-by-heart method is indispensable.

(*b*) If English is to be the medium of instruction in the University it should be the medium of instruction at the earliest possible moment in the school.

(*c*) Schoolboys are, in the majority of cases, taught English by masters who have a most inadequate command of it. The improvement above all others that is needed is to improve the quality of the teaching staff in secondary schools.

(*d*) Surely; the present training in the study of English literature is largely futile because students do not know English well enough to use it with even moderate ease and correctness. All that the study of English literature means to them is an exercise in memory by which certain phrases and sentences from essays by such men as Stopford A. Brooke or Carlyle are to be retained sufficiently long to be disgorged when wanted. For example, students have had to study critical works on Milton's *Paradise Lost* and *Paradise Regained* without having to read one word of these works except a few tiny quotations made by the critic. It is the same also with Burns; students are now reading Carlyle's criticism of Burns, but they do not read a word of Burns himself. The training of their minds to appreciate literature is in no sense going on.

(*e*) Yes; if English is to be the sole medium of instruction in the University.

HOSSAIN, WAHED.

(i) My answer is in the affirmative.

(ii) (*a*) and (*c*) I think that many of our young men enter upon a university career before they are fit for it, and I agree with Sir James Meston in his observations made in this respect at the convocation of the Allahabad University :—

"The great majority of our boys leave our high schools before they are fit to take proper advantage of a university training. Speaking generally, their English is weak, their mental discipline incomplete, their power of expression defective; they cannot follow college lectures with profit, either in the language or the handling of the principles."

Their chief difficulty is, perhaps, the English language. But it cannot be expected that every Indian student should acquire a thorough mastery of English, foreign and hard as it is, at the matriculation stage. The only thing that we can fairly expect is that a young man entering upon a university career should have a good knowledge of English. I would, therefore, suggest that school education should be improved in the way indicated in my answer to question 8.

(*f*) Instead of English the vernacular should be the medium of instruction in secondary schools. But this rule should not be made compulsory, and an option should be given to students, to write their answers, either in English or in their respective vernacular, at the matriculation examination.

(*d*) I would draw a distinction, both in school and university, up to a certain stage. During the period of school education boys should learn English as a language. But, as I have already stated, this period is not enough to acquire a mastery over the language although the period is perhaps sufficient to get an adequate knowledge of English. Now, before a language is studied as literature complete mastery over it is necessary. So I am inclined to think that English should be learned as a language right up to the I.A. term and then it should be studied as literature from the third year under the existing system of the University.

It is suggested in certain quarters that the I.A. examination be abolished, and that the period of the matriculation be extended by two years. This arrangement will interfere with certain professions, and put obstacles in the way of those young men who wish to go in for the mukhtarship examination after the matriculation; or enter ministerial service after school education under the existing system. Moreover, those who wish to prepare themselves for

the lower-grade pleadership, or take V. L. M. S., will be thrown out unless the matriculation is considered as equivalent to the I.A. after its abolition. To obviate these difficulties, even if the I. A. examination is retained, I submit that English should be taught as a language, and not as literature, right up to the I.A. standard.

(*e*) It is not at all necessary that the matriculation examination in all subjects should be conducted in English. The examination of such subjects as history, geography, etc., should be conducted in the vernacular. As an examiner of the Calcutta University I have always found that boys do well in the vernacular in those subjects, and many of them much better than in English.

(*f*) English should be taught to all students right up to the B A. standard. There should be specialised courses, and those students, who take up a special subject, should have a thorough grounding in that subject, in addition to English. For the M.A. degree one of the specialised courses only should be the subject of study.

HOWARD, Mrs. G. L. C..

(i) Certainly; for students who intend to take up scientific subjects.

(ii) (*f*) I think a certain amount of teaching in English would be an advantage. At present, students who come to Pusa for so-called post-graduate work are often lamentably deficient in English. They do not readily understand new ideas expressed in conversation, and cannot write a really intelligible account, in English, of what they have seen. One can see in speaking to them that they are often pondering the meaning of the words. Under these circumstances, it is quite hopeless to expect them to read with profit papers or books on subjects introducing a whole series of new terms such as genetics.

HUNTER, MARK.

(i) Yes; most decidedly.

(ii) (*a*) I believe—at least so it is said—that Madras students are ahead of most other Indian students in this matter. In the Presidency College, Madras, intermediate students are, from the first, quite able to follow instruction in English, and to study for themselves any English book likely to be recommended to them. When inspecting up-country colleges I have been told sometimes that the students' knowledge of English was not sufficient to allow of the adoption of what I recommended as intelligent methods of teaching and study; but I think these complaints—so far as they were not a sort of excuse—merely pointed to the fact that a large number of students had been admitted to the college whose school and public examination record showed them to be unfit to enter on a university course.

(*b*) In the higher classes, assuredly, I am not sufficiently an expert to have much of an opinion as to the stage at which precisely English should begin to be the medium of instruction in all subjects.

(*c*) I cannot say I am; avoiding details I would say generally that the teaching is at fault. When an Indian boy begins to learn English as likely as not he is taught by a person of a somewhat low order of intelligence whose own acquaintance with English is exceedingly imperfect; and, at no stage, probably, in the pupil's school life is he taught English by a teacher possessed of any special qualifications for the task. Most schoolmasters are required to teach at least two subjects, English and something else, mathematics, science, or history, and it is for proficiency in the something else that they are appointed. High schools are, in general, staffed with pass graduates and, a

all pass graduates have taken English as a compulsory subject, they are all supposed to be able to teach English well enough. In the training college the same mistake is made. There, the normal student learns to teach English (compulsory course) and something else (special optional). No one *specialises* in the teaching of English. It is right to say that a change in this matter is under consideration.

(*d*) I do not believe that, for university purposes, any such distinction can be profitably drawn. One is very familiar with criticism of a purely destructive character of 'literary' courses in English, and endless exhortations to make our courses more 'practical' have been addressed to us. If anything in the shape of constructive criticism has been offered it has hitherto escaped my notice, and I have yet to see, even in rough outline, any sort of definite scheme for a 'practical' university course in English. After all, for university purposes, the study of language cannot well be separated from a study of books, and books possessing a literary value will always be found to be more suitable than books which have none. The practical ends will themselves be best served if the course in English be a well-conceived literary course. Besides, courses in English are intended to serve cultural, no less than practical, ends. I do not believe there is, in reality, any conflict of aims. A course in English will be of practical value, that is to say, it will give the student what he wants for the successful study of other subjects, and for engaging profitably in practical affairs—capacity to read with understanding, habits of clear and accurate thinking, facility in expression—very largely in proportion as the course is *literary*.

(*e*) Yes.

(*f*) I am satisfied with the Madras arrangement, which is:—

Intermediate course.—English compulsory for all; about two-fifths of the whole course.

B. A. pass.—English compulsory for all; about half the whole course.

B. A. honours.—A preliminary course in English for all. It is a one-year course, but engages only a small portion of the student's time during the year. [The complete honours course extends over three (or four) years.] The preliminary course in English consists of a part of the ordinary B.A. course, *viz.*, nineteenth century prose (with set books) and composition on the subject matter of certain set books. I believe this course to be quite suitable. The professors of science at first regarded it with some suspicion, but they have since testified to its usefulness, and, in the scheme for B.Sc. courses and examinations (pass and honours) recently adopted by the senate, this same preliminary course has been included on the unanimous recommendation of a committee of the senate the great majority of the members of which are scientists.

HUQ, The Hon'ble Maulvi A. K. FUZLUL.

(i) I am very strongly of opinion that English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course. I believe that some of the most glaring defects in the present condition of affairs in the University of Calcutta are largely due to a policy which relegates English to an undeserved position of inferiority. English has been unduly, and most unjustly, sacrificed at the bidding of a number of faddists who have been laying undue importance on the question of the study of the vernaculars.

(ii) (*a*) I do not think that University students possess, on their entrance to the University, an adequate command of English. This is due to the fact that the study of English is now at a discount in the various schools leading up to the matriculation in consequence of the policy pursued by the University.

HUQ, The Hon'ble Maulvi A. K. FUZLUL—*contd.*—HUQUE, Kazi IMDADUL.

(*b*) English should be used as the medium of instruction in secondary schools for those students who are being prepared for the matriculation, and the process should begin at as early a stage as possible. My own personal experience teaches me that there should be a reversion, with such modification as may be necessary, to the older state of things, and that, except in the very lowest classes, the medium of instruction should be English. The beginning must be with the vernacular, but English should be gradually introduced, so that when the boy reaches what was known as the fourth class under the old system (that is to say, the class fourth down on the list beginning from the matriculation) the instruction should be wholly in English. Much will depend, of course, upon the teacher on whom will devolve the duty of conveying instruction in a foreign language in a manner suited to the capacities of the pupils.

(*c*) I am not satisfied with the kind of training now given in English before entrance to the University. I would suggest that the subject of study should be curtailed, and greater attention paid to the study of English. For this purpose, the number of books of study in English should be increased. Boys should be taught the art of paraphrasing sentences from a text into the boy's own English. Great attention should be paid to English composition. I would also recommend a reversion to the older method of prescribing a text-book for the matriculation examination in English. This text-book should be thoroughly studied, and the examination should be fairly stiff.

(*d*) Yes; I would draw a distinction, both in school and university, between practical training and the study of English literature.

(*e*) Yes; I think that the matriculation in all subjects should be conducted in English except the examination in the so-called second languages where it may be left to the discretion of the examiners to require candidates to write the answers in the particular second language concerned or in English.

(*f*) Yes; I think that English should be taught to all students during their University course. There ought to be a minimum standard of study of the English language which ought to be compulsory for all University students, whether their general course of study is linguistic or not. For those who want to specialise in English the course of study should necessarily be of a stiffer character.

HUQUE, Kazi IMDADUL.

(i) English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course. But, at the same time, there ought to be provision for the highest possible university training in the vernacular. As suggested in connection with the matriculation course there should be, side by side with instruction and examination through the medium of English instruction and examination through the medium of the vernacular, at every stage in the University course.

(ii) (*a*) At present, the command of English possessed by students on their entrance to the University is not adequate in most cases.

(*b*) In secondary schools English ought to be the medium of instruction to a very limited extent. Except in the training in the use of the English language the vernacular ought to be the medium of instruction in everything.

(*c*) The kind of training now given in English before entrance to the University is not satisfactory. I would suggest some such steps as indicated below for better training in English :—

(A) The appointment of efficient teachers of English in all classes from below, upwards. The practice now is to leave the beginners and the lower classes generally in the hands of ill-qualified and ill-paid teachers. This must be discontinued. None but thoroughly trained men should be allowed to teach English in any class.

(B) Training in the use of the English language should be taken in hand from the very first and carried on persistently throughout the school course.

(C) For matriculation students three books should be prescribed for thorough study, *viz.*, one book of selections, including poetical pieces, one abridged fiction, and one small poetical work. Besides these there ought to be a few books of story, travel, biography, etc., both English and vernacular, for the candidates' own study. These should form the basis of practical training in the use of the language. For example, students may be practised in studying the books by themselves and in writing out the substance and criticising the characters of an English book in Bengali and of a Bengali book in English. Oral work on these lines may also be carried on.

(D) During the last four years of the school course a large amount of conversation and composition in English should be done. This should be correlated, as far as possible, with the other school subjects, such as history, geography, vernacular, literature, science, etc. Students should be made to express (both orally and in writing) in English the substance of what they have studied or what they have seen or done themselves in life.

(E) From as early a stage as possible exercises should be given in writing out in the vernacular something told or read out in English in class.

(*d*) Yes; I should draw a distinction between practical training in the use of the English language and training in the study of the English literature both in school and university.

(*e*) The matriculation examination in all subjects except English ought to be conducted in the vernacular.

(*f*) English should be taught to all students during their University course. For students whose general course of study may be other than linguistic, only a practical training in the use of the language may be given.

HUSAIN, The Hon'ble Mian MUHAMMAD FAZLI, Khan Bahadur.

(i) Yes.

(ii) (*a*) Not quite.

(*b*) Only in technicalities.

(*c*) More reading of a general nature.

(*d*) Yes.

(*e*) No.

(*f*) Yes; composition, translation, and general reading.

HYDARI, M. A. N.

(i) No.

(iii) I would have the vernacular as the medium of instruction in high schools and colleges up to the B.A. At the same time, I want to note most emphatically that if English is given up as a medium of instruction it should be always and invariably open for Muhammadan students to have Urdu as the medium of instruction, and in all Government colleges and in the University the Urdu side should be as fully equipped as the other vernacular sides; if this for any reason is not possible it is absolutely necessary in the interests of Muhammadan students that English should continue to be the medium of instruction.

IMAM, The Hon'ble Justice Sir ALI.

I have already stated in my answer to question 8 that I consider English as necessary for imparting instruction in the universities, and also my reasons for the same.

Indian Association, Calcutta—IRFAN, Maulvi MOHAMMAD.

Indian Association, Calcutta.

(i) In the existing condition of things English should be used as the medium of instruction and of examination at every stage above the matriculation course.

(ii) (*a*) It cannot be laid down as a general proposition that all students, on their entrance to the University, have an adequate command of English, but many have.

(*b*) For students who are preparing for the matriculation the vernacular should be chiefly used as a medium of instruction. Growth of ideas and expansion of the mind should be the objective. This will reduce the number of text-books in the various subjects which are in the English language. The difficulty that students now suffer from having to learn these subjects in English will be considerably reduced. They will be, therefore, more free to attend to the study of the English language. Care should be taken that special stress is laid upon their acquiring greater familiarity with the English language than now.

(*c*) The way in which English is now taught in schools is capable of considerable improvement. The grammar method, which takes the life out of language, is generally followed. There are mechanical exercises which do not tend to produce assimilation. Students cannot acquire any idea of the living tendencies of language. Language should be taught rather through the ear than through grammar and dictionary.

In schools teachers should encourage students to read English story books as a help to acquire a good knowledge of English.

(*d*) There is a great distinction between practical training in the use of the English language and training in the study of English literature. What is necessary for our students generally is the practical training, or, in other words, good "working knowledge".

(*e*) No.

(*f*) For students whose course of study is other than linguistic a good "working knowledge" of English would be very useful.

IRFAN, Maulvi MOHAMMAD.

(i) Yes; I hold that English should be the medium of instruction in the college department.

(ii) (*a*) Students do not have as adequate a command of English at present as they had before.

(*b*) The vernacular system introduced into secondary schools in classes below class VII has greatly retarded the progress of English education. This system should be abolished, and English should be made the medium of instruction in classes above class IV and Mussalmans should be given option to take up Urdu as the vernacular from that class.

(*c*) No; as proposed in (*b*).

(*e*) Yes; the matriculation examination in all subjects should be conducted in English as at present.

I beg to point out that the vernacular of the Muhammadans is not the vernacular of the Hindus in Bengal. The vernacular of the Muhammadans in general is a mixed language consisting of Arabic, Persian, and Urdu words. In East Bengal the Muhammadans speak a language mixed with Arabic, Persian, and Urdu words. In West Bengal the vernacular of the Muhammadans is almost Urdu, as will be proved by their correspondence, documents, etc. If Bengali be introduced and recognised by the authorities as the vernacular of the Muhammadans they will be great sufferers. Muhammadan students will be Hinduised in manners, habits, and customs. The Sanskritised Bengali text-books contain very little that is Islamic. They are full of Hindu mythology and

Hindu characters. An impartial judge can imagine the disastrous consequences of the study of such books.

So provision should immediately be made for teaching Urdu in secondary schools and colleges as well.

IRONS, Miss M. V.

(i) English should be used as the medium of instruction above the matriculation in the University.

(ii) (*a*) On their entrance to the University some students do not possess a sufficient knowledge of English, but within a few months they acquire that knowledge. If the matriculation examination is carefully conducted, and the teaching of English in schools is improved, the right sort of students will be admitted into the University.

(*b*) Those who intend to study beyond the matriculation must have English as their medium of instruction, even in secondary schools. For those who do not go further some vernacular may as well be a medium of instruction.

(*c*) The kind of training given in English before entrance to the University is not satisfactory. In order to have command of the English language students should be placed in charge of teachers who are competent to teach this subject. They should be made to talk in English throughout their lessons.

(*d*) A distinction should be drawn between practical training in the use of the English language and training in the study of English literature.

(*e*) Yes; the matriculation examination should be conducted in English in all subjects.

(*f*) English should be taught to all students during their University course. Those who would pursue a course other than a linguistic one should study some of the books on English literature to enable them to understand the works of good authors.

ISMAIL, Khan Bahadur MOHAMMAD.

(i) English should be the medium of instruction and of examination at every stage above the matriculation standard.

(ii) (*a*) No.

(*b*) In the upper classes in secondary schools English should be used as the medium of instruction in all subjects except the second language

(*c*) No; teachers with a better knowledge of English are required for schools.

(*d*) Yes; there should be regular coaching in the use of the English language.

(*e*) Yes.

(*f*) Yes; up to the B.A. standard.

IYER, The Hon'ble Mr. Justice T. V. SESHAGIRI.

I have strong views upon this question. Too much importance is being attached to the study of English. As I said before, a high degree of proficiency in English is necessary in the two professions I have indicated. But, for general diffusion of knowledge, which the country stands greatly in need of, this requirement of a high degree of proficiency in English is unnecessary and uncalled for. I would make English a compulsory second language in all the classes leading up to the school final. All non-language subjects should be taught in the vernacular. In the intermediate class also, although I would require that the teaching should in all subjects be in English, I do not think that the literary subjects in English which are prescribed for intermediate students really help them in acquiring a good knowledge of the optional subjects in which they are required to specialise. No doubt, it must be open to students to specialise in English, but this must '

JALIL, ABDUL.

(i) Yes; English should be used as the medium of instruction and examination at every stage above the matriculation in the University course only till the time when a commission, appointed fifteen years after the introduction of the system of using the vernacular as the medium of instruction and examination for all school examinations, including the matriculation, gives its opinion about the introduction, or otherwise, of the same system in the colleges.

(ii) (*a*) University students, on their entrance to the University, have an adequate knowledge of English, but do not have an adequate command of it.

(*b*) English should be used as the medium of instruction only in so far as the technical terms, if necessary, may be freely used in imparting instruction through the vernaculars.

(*c*) No; better and more qualified teachers should be required to teach English to the lower classes. Throughout the education in schools, as far as English is concerned, the aim should be to give a student practical training in the use of the English language, rather than training in English literature.

(*d*) *Schools.*—In standards below the matriculation practical training in the use of the English language should alone be given while in the classes preparing for matriculation the above should be supplemented by training in the study of English literature.

Colleges.—The system as proposed above for the matriculation class should be followed for the first four years by a student in the University except in cases as explained under (*f*), below.

(*e*) No; students should be given an option.

This was done in the Bombay University, but the students are reported not to have availed themselves of this privilege. The reason is not far to seek. At present, instruction being mostly given in English, students do not feel confident in expressing themselves in the vernacular. The study of the vernaculars is too much subordinated to that of English with the result that a student has, in fact, far less knowledge and command of his own vernacular as compared with the English which he is able to gather up under the present system.

(*f*) To the first part of the question the answer is in the affirmative.

For students whose general course of study may be other than linguistic the training in English literature should be minimised or altogether abandoned. They should be required to take up only practical training in the use of the English language.

JOHNSTON, Rev. A. B.

(i) On the one hand, if India is to be one, it is expedient that men of one province should be able to go to a university in another province. It is also an aid to the comparison of the standards of different universities if men can pass from province to province. Teaching in the numerous vernaculars will seriously localise the students of the universities; and impede, if not make impossible, the passage of lecturers from one university to another.

On the other hand, the vast majority of the inhabitants of India will continue to think in the vernacular; and the wide diffusion of culture will progress most rapidly if teachers think and write in a vernacular. National literatures will develope far more quickly if university teaching is done in the vernacular.

JOHNSTON, Rev. A. B.—*contd.*—JONES, C. E. W.

But the practical difficulties of vernacular universities teaching in at least Bengali, Hindi, Urdu, Marathi. Gujerati, Tamil, and Telugu are enormous and, at present, probably insuperable. And who shall decide where Hindi universities end and Urdu universities begin ? The United Provinces have had one Hindi *v.* Urdu controversy. Do they want another ?

If the inauguration of responsible government meant smaller provinces then those provinces might each support a university, and decide in what language (or languages) teaching should be given. At present, to teach in English seems the easiest and best way But there is much to be said for the position that men will learn more quickly, and think more effectively, in their mother tongue. English as a subject could still be taught in English ; and English would remain—as it is now—the one *lingua franca* of India.

But the best policy would probably be to teach English from the lowest classes of primary schools so that it became almost a mother tongue. At present, the chief reason why primary schools languish is probably because no English is taught in them. Many nations are largely bilingual. Then students would come up to the University fully able to understand lectures in English. This was the method of thirty or forty years ago ; and the cultured English of the older school of Indian gentlemen would strongly support this solution of the language difficulties in Indian universities. Our Senior Professor of English, Professor J. S. Zemin, one time principal of the Doveton College, has, in conversation with me, strongly emphasised this point ; and he has had some forty years' experience of Bengal university life.

JONES, C. E. W.

(i) Yes ; for the following reasons :—

(A) The multiplicity of vernaculars.
(B) The lack of text-books in the vernaculars.
(C) The popularity of English.

I doubt whether students would care to receive instruction through the medium of the vernacular, or to be examined in the vernacular if the choice were offered to them.

(ii) (*a*) My experience has been that University students on entrance to the University have not an adequate command of English. The result of this has been that university teaching, for the first two years of the course at any rate, has been confined to prescribed text-books which are laboriously crammed almost word for word. This is true not only of the study of English literature, but of other literary subjects, *e.g.*, history, economics, and philosophy. University students are unable to profit by lectures, even in the last two years of the course. Whatever notes they take down have to be laboriously dictated and, in practice, these notes are learned off by heart.

(*b*) In this connection, I would refer to my suggestion for the extension of the school course for boys who wish to proceed to the University. If that suggestion were adopted the ordinary school course would consist of the following stages :—

(1) The elementary stage—four years.
(2) The middle (or higher elementary) stage—four years.
(3) The high stage—two years.
(4) The advanced high stage—two years, for boys preparing for the University.

English should be introduced as a subject of instruction in the first year of the middle stage, and should be taught as a second language up to the end of the

JONES, C. E. W.—*contd.*

high stage. In the advanced high stage it should be employed as the medium of instruction.

The advantages of this scheme may be summarised as follows :—

(A) Boys taking the high school course who do not intend to proceed to the University would be able to obtain a more thorough training in the ordinary subjects of instruction (other than English) than is possible under the present system in which English is the medium of instruction in the high stage. At present, the high school course is very largely a repetition of the middle course, the only difference being that in the middle course the majority of the subjects is taught in the vernacular, while in the high school course English is the medium.

(B) These boys would also be able to receive better training in English. The present high school system not only hampers the pursuit of general knowledge, but also handicaps the study of English. For, practically, the whole time of the boys is devoted to text-books, and conversation and simple composition are neglected.

(C) Finally, the scheme would provide a better preparation for boys who intend to proceed to the University. For not only would they be more facile in the use of written and spoken English, but they would be able to apply English, with considerable success, as an instrument for further study. Their knowledge not only of the English language, but of other subjects, would be enormously increased.

(*c*) The training in English is, at present, too literary, and not sufficiently practical. What is wanted throughout the middle and ordinary high school stages is plenty of conversation and oral and written composition. The study of English literature should be postponed to the advanced high school stage and, even then, it should be undertaken only by boys who intend to take up literary subjects at the University.

(*d*) For my opinion regarding the teaching of English in schools please see above. In the University only candidates for degrees in literary subjects should undertake the study of English literature. For other candidates, *e.g.*, candidates for degrees in science and mathematics, the training in English should be strictly practical.

(*e*) Yes; if my suggestion for extending the high school course were carried out. Otherwise, candidates should be given the option of answering questions in the vernacular in all subjects other than English.

(*f*) Yes; because facility in the use of at least one European language is indispensable in every branch of study.

The aim of the training in English for those students whose course of study is other than linguistic should be to increase their facility in writing, reading, and speaking the language and, at the same time, to equip them with a certain amount of general knowledge.

For this purpose, I would suggest the following courses :—

(1) Intermediate course :—

(A) Rapid reading of a certain number of standard works of general interest.
(B) Frequent essays on the subject matter of those books.
(C) Conversations or discussions between teachers and students and between students and students on matters of general interest.

(2) Degree course (ordinary) :—As above.

(3) Degree course (honours) :—

(A) Rapid reading.
(B) Essays.

JONES, T. CUTHBERTSON.

(i) Yes; for better or worse English has come to stay as the medium of instruction in Indian universities. It is the *lingua franca* of India, the symbol and expression of Indian unity and national feeling, the means of direct communication with Western thought in India, and the most effective means of acquiring Western science.

(ii) (*a*) I do not consider that University students have, on their entrance to the University, an adequate command of English. They are frequently unable to follow lectures in English, particularly when, after being taught in school by Indian teachers, they begin to be instructed by Englishmen, with whose accent and intonation they are not familiar. They are frequently quite unable to understand the gist of ordinary text-books in English prose without assistance.

(*b*) I consider that English should be the sole medium of instruction in secondary schools for those students who are being prepared for the matriculation.

(*c*) No; I would suggest the abolition of text-books in English for examination purposes, and confine the test to dictation, translation from, and into, the student's vernacular, grammar, and composition. The prescribed text-book in English is the curse of the matriculation examination. Students commit to memory paraphrases of passages and get up bazar "keys" by heart. Texts should be read in the class as a means of assisting the student to acquire the language, and also for educational purposes, such as training the taste, reasoning power, and character. The texts read should be reported to the University, together with a satisfactory explanation of the method of teaching used and of the work done in the class. But students should not be *examined* on their text-book knowledge in English. In addition to dictation, composition, and translation much more attention should be paid to translation and retranslation, a method which I have found of the greatest value myself in learning French composition, and which I have introduced with marked success into the teaching of English in my own college. It was the method used by Roger Ascham in teaching Queen Elizabeth Latin and Greek, and I believe its neglect in the modern teaching of Latin and Greek is one reason of the failure of so many students at Home to acquire even a moderate knowledge of the ancient classics in spite of the time and effort given to their study. Briefly, the method is as follows:—

Let the teacher dictate or write on the blackboard a passage of simple, modern, idiomatic English prose and tell the student to translate it very carefully and literally into his own vernacular, making a careful note of differences of idiom and grammar. After twenty-four hours let the student who, in the meantime, can be translating another passage from English into the vernacular to avoid waste of time, retranslate the passage from the vernacular into English, keeping as close to the original as possible, and then let him carefully compare his version with that of the original, and write out his mistakes. Here the help of the teacher will be required to point out where a difference between the original passage and the student's version is due to a mistake in grammar or idiom, and where it is merely an alternative rendering.

(*d*) Yes; I would certainly draw such a distinction. I would drop English literature (including the study of Milton, Shakespeare, Tennyson, and Keats) as a compulsory subject for the arts degree. This is what makes an Indian university ridiculous in the eyes of Europe, and gives point to the jests about 'Babu English'. For the unfortunate Indian student too frequently devotes to learning notes on Shakespeare by heart precious time which might be more profitably spent upon history, economics, or acquiring a good working knowledge of modern English prose. Let the exceptional

student who has a taste for literature take up Shakespeare and Milton as optional subjects, but let us be content with a fair knowledge of current English for the average man.

(*f*) I would, therefore, make English literature as opposed to the study of the English language an optional subject for the intermediate and B.A. degrees in an Indian university, and I would not permit an Indian student to take up the M.A. degree in English unless he had passed the B.A. degree with English literature as an optional subject.

Those who do not take up English literature as an optional subject in the intermediate and B.A. examinations should study all subjects through the medium of English, and be constantly exercised in translation, English composition, and translation and retranslation. The separate study of English texts for examination purposes will then not be necessary although reading and speaking English should be encouraged as much as possible in the college literary, historical, and other societies and clubs. Tutors should also insist upon their wards reading standard English prose works in their leisure hours.

KADIR, A. F. M. ABDUL.

(i) The real bane of the present system of university education is the fact that English is the medium of instruction and examination at every stage. The vernacular should be the medium for all purposes and for all subjects up to the matriculation standard save in English. The pupil will save much of his time, and he will learn the three R.'s more quickly than he is doing now. The time thus saved will be employed, with profit, in learning English, where we may even raise the standard a little and prescribe a separate course of *study only for those who want to enter the University for higher examination and degrees.* An experiment, though on a small scale, has already been made in this line when candidates have been allowed to answer a history paper in their vernaculars.

(ii) A bifurcation can be made during pre-university teaching at the stage when the student reaches the present second class. Here, a special course should be prescribed for those who want to go in for the degree. The medium of instruction and examination for them will be English only in that subject. The University will then get better material to work with. This will also make the Indian guardian think seriously regarding the future of his children which, at present, he is not liable to do, with the result that any and every matriculate flocks to the University door.

KAR, SITES CHANDRA.

(i) It is desirable to replace English by Bengali as the medium of instruction, and I think steps should be taken to bring about the change. It is beyond doubt that the necessity of mastering a foreign tongue is an enormous strain and drag on intellectual progress. I am alive to the objection that this salutary change cannot be effected all at once. Indeed, alike for the political reason that Government work is carried on in English as for the fact that for a considerable time to come the importation of Western knowledge will have to be made through the medium of English, it would be necessary to insist upon the teaching of the English language. I would, therefore, suggest that the teaching in the University should be in Bengali and in the school (in the upper forms) in English. In suggesting English as the medium of instruction in the schools I have in mind the very great incentive it would, in that case, give to the acquisition of that practical familiarity with the language which is desirable.

(iii) I should here refer to my answer to question 8 and remind the Commission that the school course would come up to, and include, what is at present known as the intermediate course.

KARIM, Maulvi ABDUL.

(i) Under the existing circumstances the medium of instruction and of examination at every stage above the matriculation in the University course should be English.

(ii) (*a*) Students have not, on their entrance to the University, an adequate command of English.

(*b*) Up to class VI (middle English standard) the vernacular should be the medium of instruction for *all* students, and from class VII upwards option should be given only to those students who prepare for the matriculation examination to learn a subject either through the medium of the vernacular or English.

(*c*) I am not at all satisfied with the kind of training at present given in English before entrance to the University. A number of voluminous books on English is recommended, and students are taught at random whichever book or books the headmaster of a school chooses to teach. I do not think they can thereby acquire a clear idea of standard works or a sound knowledge of English. The old arrangement of publishing in one volume selected pieces from standard works was, I think, better than this. I do not, however, approve of the old system of examining only in the selected pieces. Passages from the selection need not be set for examination or elucidation. Passages similar to those selected, either from the books from which the selections are made or from other works of the same standard, might be set at the examination. If a selection is published the cost of books will be much less than what it is at present.

The method of teaching English in our schools is most defective. Boys learn words without realising their significance or knowing their proper use. Teaching by means of translation, which is perhaps the least effective method of teaching a foreign language, is generally followed in our schools. It retards the quick comprehension of the spoken tongue, and the intervention of the vernacular medium postpones the time when the pupil can speak without consciously translating from his native speech into the foreign language. To this is partly due the difficulty of even some advanced students of English in grasping the true significance of a simple idea without a preliminary rendering into the vernacular. On account of this double mental process the music of the language cannot be fully appreciated, nor the facts expressed through its medium fully understood. In teaching English the vernacular should be very sparingly used, and translation should not be the means of understanding words and sentences in English. The teacher should endeavour to connect English words directly with the ideas they express, or with other English words known to the boys, and, thus, to replace translation, as far as possible, by object-lessons, picture-lessons, and explanations in the English language. As a new language is learnt more by speaking it and hearing it spoken than by a study of its vocabulary and grammar and, as boys cannot easily learn to speak the language unless they think in it, much more importance should be attached to English conversation in the class-room and outside it than is done at present. Correct pronunciation, expressive reading, good composition, and proper recitation, at present neglected, should be carefully attended to.

The success of the teacher's work chiefly depends upon his method, which should be suited to the needs of the pupils, their capacity, knowledge, and stage of development. Teaching should be rational, and not merely formal or mechanical. The mind should not be merely fed with facts, figures, and words, but the pupil's power of reasoning, judging, comparing, and contrasting should be properly developed. That mere telling is not teaching must not be

forgotten. Besides, the teacher should bear in mind that the first thing to be learnt by the boys is not the more or less archaic language of English literature, but the spoken language of daily conversation. Quality, and not quantity, should be always aimed at. "Little and well" should be the teacher's motto. As a rule, things should be taught first and words next. At present, in many cases, only words are taught. Education should not be imparted by words, but by clearly realised ideas and things. Many students get up a book instead of studying a subject. Care should be invariably taken that knowledge is not a mere matter of words; when it is so it is the worst kind of cramming. Accuracy of idea and precision of statement should go together. Further, the teacher should not only see that the pupils grasp his meaning, but should make them give back their knowledge in their own words.

(*d*) A distinction should be drawn in the school, if not in the University, between practical training in the use of the English language and training in the study of English literature.

(*e*) The matriculation examination in subjects other than the English language may be conducted either in English or in the vernacular.

(*f*) I do not think it is essentially necessary that English should be taught beyond the intermediate stage to students whose general course of study may be other than linguistic.

KARVE, D. K.

(i) I think the University should have two departments. In one English should be the medium of instruction and of examination at every stage above the matriculation in the University course. In the second department the vernacular of the province should be the medium of instruction and of examination at every stage above the matriculation. In this connection, I think that the principle should be accepted once for all, and the aim should be to bring it into operation, step by step, during the next five or ten years. Examinations and degrees in both the departments should be valued equally.

(ii) (*a*) I think that students do not possess an adequate command of English at the time of their entrance to the University.

(*b*) As regards secondary schools my opinion is that the medium of instruction, as also the medium of examination, should immediately be made the mother tongue of the scholar. The unsatisfactory state of secondary education—the complaints of cram, of the meagre knowledge of students, of the inadequate knowledge of English—is, to a large extent, due to the fact that boys of tender age have to learn subjects, even the classical languages, through a foreign medium. It is an established psychological principle that to learn things through a foreign tongue requires far more expenditure of brain-power than to learn the same thing through the mother tongue. Such knowledge is not probably assimilated. The time has, therefore, come to change the medium of instruction, as also of examination, in secondary schools. If this reform is brought about secondary education would be placed on a sounder basis, and this improvement is calculated to better university instruction. For students would come better prepared and better equipped to profit by the higher education at present imparted by colleges.

(*c*) If the above reform is introduced then training in English at the matriculation can be made more adequate than it is at present; far more attention can be given to the study of English than it has been possible to give hitherto.

(*e*) Except in English all examinations at the matriculation should be conducted through the mother tongue of the candidate.

(*f*) Yes.

KHAN, ABUL HASHEM—KHAN, Mahomed HABIBUR RAHMAN—KHASTGIR, KARUNAMAY.

KHAN, ABUL HASHEM.

(i) I see no reason why English should be the only medium of instruction and of examination in the University course, save in the subject of English literature.

(ii) (*a*) I do not consider that, at present, university students, on their entrance to the University as a rule, possess an adequate command of English.

(*b*) Save in the teaching of English I do not think that English should be made the medium of instruction in secondary schools for students preparing for the matriculation examination.

(*c*) I am not satisfied with the kind of training now given in English before entrance to the University. I would suggest a raising of the standard of proficiency in the English language. The English course prescribed for the matriculation might consist of prescribed text-books and a standard of general knowledge. A stiffer examination test should be imposed than is the case at present.

(*d*) School training, so far as English is concerned, should be confined to training in language. The study of English as a literature should be left to the college and university.

(*e*) Save in the subject of English the matriculation examination in other subjects may be conducted either in the vernacular or in English.

(*f*) I am of opinion that English should be taught to all students during the university course up to the intermediate stage. Beyond the intermediate stage English may cease to be taught to such students as take up a non-linguistic course. The kind of English teaching in the linguistic and non-linguistic courses up to the intermediate stage may be the same.

(iii) In the University and pre-University courses English should be the medium of instruction only in teaching the subjects of English language and literature. For other subjects the vernacular medium should be encouraged. The only change necessary for the purpose is the replacement of English books by vernacular. This may be done gradually. Some difficulty might arise on the score of the multiplicity of the vernaculars. To meet this I should allow colleges so choosing (*e.g.*, Government and missionary colleges) to teach their subjects through the medium of English. Such an arrangement will also go to solve the difficulty arising from the backwardness of a vernacular to be immediately made a medium of instruction in any of the University subjects.

KHAN, Mahomed HABIBUR RAHMAN.

(i) No; the medium of instruction both in schools and universities should be the vernacular of the province. Without this our life and mode of thought become more artificial and superficial than they need be. India will never develop her real genius and intellectual life till it is made possible for the inhabitants of the country to acquire all varieties of knowledge in the language which comes to them most naturally, and this they will never be able to do as long as English is allowed to remain the only language of culture in the land. Meanwhile, English should be taught as a compulsory language both in schools and in the universities.

KHASTGIR, KARUNAMAY.

(i) Yes; I hold that English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course.

KHASTGIR, KARUNAMAY—*contd.*—KO, TAW SEIN—KUNDU, Rai BEJOY NARAYAN, Bahadur.

(ii) (*a*) At present, students, when they enter the University, have a poor knowledge of English and, consequently, no adequate command of English. So the method of teaching English in schools must be improved first of all.

(*b*) I have said in my reply to question 8 that history, geography, and sanitary science should be taught in the vernacular and English should be the medium of instruction in English and mathematics only.

(*c*) I am not at all satisfied with the teaching of English in the secondary schools of Bengal. I have suggested that English should be taught by properly trained teachers and arrangements for tutorial assistance for all students should be made in all schools.

(*d*) I should like such a distinction to be made in schools if proper steps could be taken for enforcing it.

(*e*) I have already said that the matriculation examination in English and mathematics should be conducted in English, and in other subjects it should be conducted in English or the vernacular at the option of the student.

(*f*) Students who propose to pursue their studies in the faculty of arts must read English until they specialise in any particular subject at a higher stage in their University career. But those students who intend to pursue their studies in the faculties of science or applied science and technology or medicine need not read English throughout their University career.

KO, TAW SEIN.

(i) Yes.

(ii) (*a*) No; their knowledge of English is very inadequate.

(*b*) Perhaps in secondary schools mathematics and geography may be taught in the vernacular and the rest in English. If possible, the whole course should be taught in English.

(*c*) The kind of training now given in English, before entrance to the University, is very faulty. Improvements may be effected by having more composition, translation, and conversation.

(*d*) Yes; in school practical training in the use of the English language is of far greater importance than the study of English literature, which should be taken up only at the University.

(*e*) If not abolished, as proposed in my reply to another question, the matriculation examination in all subjects should be conducted in English.

(*f*) Yes.

KUNDU, Rai BEJOY NARAYAN, Bahadur.

(i) English should be used as the medium of instruction and of examination at every stage above the matriculation examination.

(ii) (*a*) Students, on their entrance to the University, have not an adequate command of English as at present the matriculation standard in English is very low.

(*b*) English should be the medium of teaching English and history only up to the matriculation standard and the vernacular that of teaching other subjects.

(*c*) The kind of training now given in English before entrance to the University is not satisfactory. The majority of teachers of English have not a sufficient command of English and their pronunciation is highly defective. Of course, as teachers are very poorly paid *bona fide* teachers are not always available. Many schools are now managed by persons who are either law students, or who have a mind to do some other business, so they hold the teaching occupation temporarily as a means to an end. Steps should be taken by the University to remedy this.

KUNDU, Rai BEJOY NARAYAN, Bahadur—*contd.*—KUNDU, PURNACHANDRA—LAHIRI, BECHARAM—LAHIRI, GOPAL CHANDRA.

(*d*) Under the present system there is no arrangement whatsoever for practical training in the use of the English language. So that students cannot follow their professors in their lectures and they cannot talk in English properly.

(*e*) In the matriculation examination all the subjects other than English and history should be conducted in the vernacular.

(*f*) All students, including those whose general course of study may be other than linguistic, should receive training in the study of English literature up to the matriculation and I.Sc. standards.

KUNDU, PURNACHANDRA.

(i) The medium of instruction and of examination at every stage in our University and pre University courses (except in English literature and in the English language) should be Bengali. Of course, under the existing conditions of Bengali literature it is impossible to rely entirely upon this language alone. I consider that a *fair grounding in the English language* is also absolutely necessary. One can appreciate most easily the spirit of a discourse delivered in one's own language; he can then extend his knowledge by an intelligent and well-directed study of books in English.

(ii) I would, therefore, make the following recommendations:—

(A) In all subjects, all through the University course, excepting in the English language and English literature, lectures should be delivered in Bengali; if, for want of a proper vocabulary, this becomes impossible or difficult, the lecturer or the student might, when occasion arises, introduce English words to express his ideas, but the lecture or answer, as a whole, should be in Bengali.

(B) Students should be referred to books and journals in English for additional study and further work, and they should possess a sufficient knowledge of English to understand these books without any difficulty; if Bengali books are available they should, of course, be referred to these.

(C) The examination should also be conducted in Bengali, and answers written in that language as far as practicable.

This system should ensure the better training of the student, remove the unnecessary strain of having to bear the unpleasant burden of a foreign language at every stage of his training, and partially remove the necessity of cramming.

LAHIRI, BECHARAM.

(i) Yes.

(ii) (*a*) No.

(*b*) In geography, science, and hygiene the vernacular may be used.

For the subject of the second language the following may be prescribed as compulsory:—

(A) One paper in a classical language.

(B) One paper in a vernacular.

(*c*) No; the study of grammar, conversation in English, and reading from easy newspapers.

(*d*) Yes.

(*e*) No; *vide* my answer to (*b*).

LAHIRI, GOPAL CHANDRA.

(i) As text-books and teachers become available all subjects except English should be taught through the medium of the vernacular of the students. The same

principle should be applied to the matriculation studies also. Examination in all subjects but English should also be conducted in the vernacular of the candidates.

(ii) (*b*) My answer is contained in that to question 9.

LAHIRY, RANOJIT CHANDRA.

(i) An attempt should be made to introduce the vernacular medium of instruction in all subjects—especially history and logic—up to the intermediate standard.

(ii) (*c*) It is desirable to have text-books in the matriculation. More attention should be given to spelling and pronunciation.

(*d*) There is surely a distinction between practical training in the use of the English language and training in the study of English literature. Up to the matriculation the training should be of the former kind.

(*e*) The matriculation examination in all subjects need not be conducted in English.

(*f*) English should be taught to all students up to the B.A. The old kind of teaching may be reintroduced.

LANGLEY, G. H.

(i) If it be considered by Bengali educationists—who are best able to judge—that the use of English as a medium of instruction at all stages above the matriculation hinders the spontaneous exercise of the student's own mental powers I consider that some instruction in these stages should be given in the vernacular. Should such a change be necessary, however, steps must needs be taken to secure proficiency in English since most of the higher studies must be carried on in this language.

LATIF, Syed ABDUL, Khan Bahadur.

(i) English should be the medium of instruction at every stage above the University course. The present advancement of India is due to the teaching of English. English has grown into a cosmopolitan language, and has a unifying influence in the British Empire. People now learn this language with as much ease as they learn their own vernaculars. In many educated families English has become, as it were, a part of their mother tongue. But, nevertheless, it is true that the teaching of English has very much deteriorated. The old method of teaching this language under which English scholars like Lal Behari Dey, Sumbhu Chandra Mukherjee and Sasi Dutt were produced should be restored. It should be taught as a foreign language. English grammar, spelling, and composition should be taught as in former days. Text-books should be prescribed for all classes of the school course. The matriculation examination should be conducted in all subjects, except history and science, in the English language. University teaching in all subjects should be in English, with the provision that those who like may answer questions in history and science in their own vernaculars. In the University I would recommend the teaching more of modern English than of mediæval English, except to those who want to make a special study of the language.

MACKENZIE, A. H.

(i) Yes; in all subjects except classical languages. The vernaculars have not a vocabulary rich or exact enough to express ideas in 'Western' subjects (*e.g.*,

MACKENZIE, A. H.—*contd.*

history, Western philosophy, science). In regard to this question it is interes ing to recall the experience of the American College at Beirut:—"When t college was first started it was decided by a committee to give instruction all scientific subjects, including medicine, through the medium of Arabic. A lot expense and trouble was incurred in having books written on the various subjec and in arranging to keep them up to date. After a short while, however, it w found that science was making such rapid advances that it was quite impossib to keep track of all the new developments and theories if Arabic were adher to as the medium of instruction and a committee recognising that, if they we to do their duty by their graduates, they must give them courses whic embraced all the latest discoveries and theses, reluctantly decided to adopt t system of teaching all sciences, including medicine, in English. This experien of what is generally recognised as one of the most important educational inst tutions in the East certainly goes a long way towards strengthening the positic of those who maintain that instruction in science and other kindred subjects be of any real use must be imparted to Orientals through the medium of European language." ("The Near East," 12th October, 1917.)

(ii) (*a*) Those who at present pass the matriculation examination of the Allahab University in the second and third divisions have not an adequate comman of English.

(*b*) English should be used as the medium in those classes in which the instru tion necessitates the use of a vocabulary richer than that familiar to the pupi in the speaking and reading of their vernaculars, *i.e.*, in the two highest class of secondary schools as at present organised. In the United Provinces th 'vernacular' fails as a medium for the expression of many abstract, and mo 'Western', ideas; the pupil has to use Persian (if his vernacular is Urdu) Sanskrit (if his vernacular is Hindi) or English words. The vocabulary Bengali is richer than that of either Urdu or Hindi but, for the expression 'Western' ideas, English would probably be necessary in Bengal also in th two present highest classes. On this vexed question of the medium teaching the experience of Egypt is instructive. "Some ten years ago whe the 'Egypt for the Egyptians' wave was at its height.....the Nationa ists.....made a great commotion in favour of having instruction i Government schools given in Arabic. They gained their point..... and the fiat went forth that even in scientific subjects teaching was fro that time onwards to be done in the vernacular. The result naturally too some time to show itself, but it is now only too apparent. In the firs place, the standard of the graduates has fallen off, and the efficiency of th average student's knowledge of English as a separate subject is much belo what it used to be under the old system. Secondly, as the boys learne English as a separate subject, and had very little practice in it beyond wha they received in the course of their English lessons, it followed that whe students possessing the secondary certificate proceeded, for instance, to th school of law, where the lectures continued to be given in English, they had t be given a course in that language before they could properly follow the lega lectures. The system is as unsatisfactory for the students as it is for th lecturers, and the judicial adviser referred very pointedly to this defect in hi recent report." (Cairo Correspondent of the 'Pioneer' in the 'Pioneer' o the 24th October, 1917.) The remarks of the judicial adviser (Sir W Brunyate) were:—"The examiners and the principal once more complain o the candidates' defective knowledge of European languages, and it has no been found necessary to establish lectures in the English language at th school itself. This is, of course, the inevitable result of the change o policy adopted some ten years ago, in pursuance of which the Arabi language is now almost exclusively used as the medium of instruction i primary and secondary schools."

MACKENZIE, A. H.—*contd.*

(*c*) No; the chief improvements required are :—

(A) Better teachers and, consequently, improved methods of teaching. The means to secure them are better pay, and the provision of adequate means of training them.

"The pay is often deplorable, and the teachers of many privately-managed schools constitute a discontented and ever-changing body. Especially is this so in the two Bengals. The committee which in 1908 reported on the condition of secondary education in these provinces found that in a number of privately-managed high schools no less than 1,317 teachers out of 3,228 teachers of English had not passed the intermediate examination, while training was quite unknown. Again, out of 4,700 teachers of English and of other subjects in the same kind of high schools some 4,200 were in receipt of less than Rs. 50 a month and of these, again, 3,300 were in receipt of less than Rs. 30. The Calcutta University is reported to demand no more in a recognised school than that the headmaster should receive Rs. 50, the second Rs. 40, and the others Rs. 25 ..... With teachers of such qualifications, and on such salaries, little can be hoped for." (Sixth Quinquennial Review on the Progress of Education in India, 1907-12, page 82.) Of the 10,857 teachers employed in secondary schools in Bengal in 1912 only 1,058 were possessed of a university degree and only 2,021 were trained.

(B) Smaller classes.—Classes must be small enough to enable teachers to give pupils individual attention. The maximum limit should be 25. In Bengal as many as 50 are allowed. With classes of this size the teacher's instruction in English is confined to the elucidation of 'text'; pupils are not taught how to speak or write the language. There is a certain amount of written work in English but, on account of the absence of individual correction and criticism, it is practically valueless as a training in self-expression in the language.

(*d*) No; except in the case of students whose general course of study may be other than linguistic and, in their case, only at the university stage. One of the most effective means of training students in the use of the English language is to require from them the study of the best models, *i.e.*, the study of literature. Moreover, in all subjects one of the main aims should be to foster in students a desire to learn for themselves; in English this means that we should endeavour to inculcate a love of reading for its own sake. This we can never do by means of 'passages' whose only merit is that they are 'good English'.

The chief mistakes made by our universities in the teaching of English have been in selecting unsuitable literature for study (although it must be admitted that what might be unsuitable for one teacher and class might be excellent for another teacher and class), and in *confining* the teaching of English to the teaching of English literature. At no stage of the undergraduate course does the student, in the majority of colleges, receive any training worthy of the name in *composition;* the chief reason for this is the size of classes. It is probable also that the teaching of English literature suffers more than any other subject from the system of 'external' examinations. Examination can gauge the comprehension of literature, but it cannot gauge the enjoyment of literature; and the main function of the teacher of literature is to teach students to enjoy it.

Apart from any other reason the retention of English literature as a part of the English course in high schools and in colleges on the arts side is justified on the ground of its ethical value. English literature is the record which the most gifted of our countrymen has left of their feelings and aspirations,

and the teaching of it is one of the best means by which we can set before students the highest Western ideals. However imperfect the Indian student's study of our literature has been in the past it has resulted in incalculable spiritual benefit to India.

(*e*) Yes; except in classical languages. In the United Provinces the 'vernacular' is not a suitable medium for the expression of thought with that exactness which should be required from the matriculant.

(*f*) Yes; English is the vehicle of Western knowledge in all branches of pure and applied science. For those students whose general course of study may be other than linguistic there should be courses in reading and composition. Students should be trained to read books in the sense in which reading is ordinarily understood, *i.e.*, for the sake of their contents. They need not be taught to grasp the exact significance of every phrase; the aim should be to give them the power of reading intelligently and quickly. The books chosen for this purpose should be such as are likely to appeal to students by the nature of their contents (*e.g.*, for science students, ***Discovery—The Spirit and Service of Science***, by Gregory, or ***Science from an Easy Chair***, by Ray Lankester). In composition students should be trained to refer to books for information on some specific subject, to make intelligent use of an index, and to collect from different sources and arrange facts bearing on a given topic.

MAHALANOBIS, PRASANTA CHANDRA.

(ii) (*b*) In lessons in English the medium should invariably be English. In other subjects the use of English may be encouraged, but should not be insisted on.

(*c*) It is necessary to encourage students to read a good deal of easy English literature, preferably in the form of suitable story books, books of adventure, etc., so that they may get familiar with the language.

Too much attention should not be paid to grammatical niceties of a technical nature. At present, we have too much of the formal study of grammar in our high schools.

(*d*) Both in school and university the primary emphasis should lie on practical training in the use of the English language.

The study of English literature should be reserved for those taking up linguistic studies. But it is essential for even *every* science student to study some good literature (in whatever language it might be) and, in case no other literature is taken up for serious study in the college (*i.e.*, the present intermediate), the study of English literature should be made compulsory. But, on the whole, every student should be encouraged to choose Bengali literature for such purposes.

It is essential for a sound liberal education to include humanitarian studies in literature; so the study of Bengali *literature* should be made compulsory for all college students. In addition, the study of a literature other than the vernacular is also highly desirable for all. In any case, the study of a *second literature* should be compulsory for all "arts" students. English literature is very well suited to meet the end in view and, perhaps, may even be given preference over Sanskrit literature.

(*e*) The matriculation examination in all subjects except English should be conducted in the *vernacular*.

At the present moment, the appointment of many examiners who do not understand Bengali may not make this wholly possible in practice, but this should certainly be kept in view as the goal.

MAHALANOBIS, PRASANTA CHANDRA—*contd.*—MAHASAI, KUMAR KSHITINDRADEB RAI.

(*f*) English lessons should be available for all students during their University course, but for non-linguistic students there is no need for any formal tests in English. The teaching for such students should consist of a thorough practical training in the use of the English language.

(iii) The *vernacular* should be the medium of *examination* at *all stages* of the University. An exception should be made in the case of English papers.

This is one of the most fundamental conditions of success for any real educational reconstruction in Bengal.

The teaching in the intermediate stage (*i.e.*, in the college) should preferably be in English. In the University proper (*i.e.*, from the present third-year stage) greater freedom may be allowed. While higher teaching, *e.g.*, post-graduate work, should almost wholly be in the vernacular.

This would secure training *both* in English (in the intermediate stage) and in the vernacular (in the higher stages). The first is a social necessity. The second is a necessary condition for any permanent intellectual work

MAHASAI, KUMAR KSHITINDRADEB RAI.

(i) By all means; English should be used as a medium of instruction and of examination at every stage above the matriculation in the University course. The time has not yet come at which any change should be made in that direction.

It is rather neo-patriotism, I should say, to insist upon making the vernacular a medium of instruction and of examination. In case it is so done immense practical difficulties would surely arise. It should be remembered that there is no specific language which may claim to be the vernacular of a district, nay, of a province. In Bengal we have our vernacular "Bengali" for the "Bengali". Hindi, Assamese, Pali, and a thousand other languages, which may be styled the vernaculars of the people using those languages as their mother tongue, which of these is the University to encourage? Which should be the favoured language? What are the tests to determine it? These are difficult problems which any sane man will be really afraid to face. Are not the classes to be multiplied twofold, threefold, or how many folds one cannot say if vernacular be made the medium of instruction. Where is the money to come from, and to what benefit? Where to find men properly equipped to teach the higher subjects in the vernaculars? Is it safe to presume that there are men competent to teach all the higher subjects of study in so many different vernaculars among the Pali-knowing Oriya, Assamese, and Khasi people, and what not? Competent men are to be trained before we can venture to launch upon such a speculation.

Can we say that if the vernaculars be introduced there should be more efficient teaching? New words are to be coined, new men are to be trained, new books are to be written, before there is any possibility of questioning the position of English as a medium of instruction in the University classes. In scientific subjects and other branches of higher study we have to sit for years together to learn from Europe through the medium of the English language.

It is preposterous to question the position of the English language as a medium of instruction and, if instead the vernaculars be adopted in spite of so many practical difficulties, the whole progress will be set back, and we will have to begin anew from where we were a hundred years ago.

A common script and language must be found before anything can be done in that direction and it may be hoped that there is no chance for it in the near future. Upon the solution of this question the future of the country wholly depends. Let us hope for good that it may be dropped altogether for the present.

(ii) (*a*) I do not consider that university students have, on their entrance to the University, any adequate command of English.

(*b*) and (*d*) In secondary schools English should be used as the medium of instruction for students preparing for the matriculation examination above the fourth

class. Sanskrit should be taught purely in the vernacular, and not through the medium of English as is done in part at present. In schools for the practical training in the use of the English language some device should be made which is not considered necessary for training in the study of English literature in the University classes. It may be suggested that the services of an European instructor should always be retained for the purpose of imparting practical training in English in school classes. He need not necessarily be a graduate. An undergraduate European may serve the purpose equally well. It may be an expensive affair, but it is, undoubtedly, expedient. Pronunciation and colloquial English are invariably neglected. This is my experience.

(*e*) What other device can possibly be made to remedy this evil? Funds must be found somehow to retain an European instructor at least; otherwise, institutions should not be affiliated.

(*e*) Much depends upon the selection of good text-books in all the school classes which, I am afraid, are indiscreetly introduced nowadays for favour and patronage at the sacrifice of usefulness. The attention of the Commissioners is respectfully invited to remedy these defects which, I hope, will be done for good.

(*f*) I hold that the matriculation examination in all subjects, except in Sanskrit, should be conducted in English. All students during their University course must have a compulsory training in the study of English literature, no matter whether they are qualifying themselves for a general course of study, linguistic or otherwise.

MAHTAB, The Hon'ble Sir BIJAY CHAND.

(i) Yes; but in the case of examination students may be given the option to answer questions in such subjects as science and mathematics in the vernacular up to the I.Sc. standard.

(ii) (*a*) I do not think they have an adequate command of English on their entrance to the University, but a higher culture should be attempted during the University career.

(*b*) In secondary schools English should be the medium of instruction in all subjects (except, of course, vernacular literature) in the highest two classes but students should have the option to answer questions in the vernacular in all subjects except English literature.

(*c*) It is begun too early in the lower classes, and the courses of study are, at the same time, too numerous to afford facilities for beginners to acquire a new language. The number of subjects should either be lessened, or the study of English commenced later after three or four years of training in the vernacular of such subjects as are now taught in the lowest classes. Greater care should be taken in teaching grammar and composition than in the mere study of text-books.

(*d*) In the case of all students who do not take up literature as their special course of study practical training in the use of the English language should be given with greater care than training in the study of English literature; but, in the case of those who make literature their special study, both kinds of training should be equally well attended to. While this should be the rule with the University no particular attention need be given to the practical training in the case of schools.

(*e*) No; *vide* answer to clause (*b*) above.

(*f*) Yes; English should be taught to all students during their University course but those students whose general course of study is other than linguistic may be given the option to answer their questions in the vernacular up to the I.Sc. standard. Above this standard English should be the medium of instruction and examination everywhere. Every student of the University must have a compulsory subject in English literature up to the B.A. or B.Sc. standard.

MAITRA, AKSHAY KUMAR.

(i) English should not, however, be the only medium of giving instruction and of testing efficiency in the University courses in those branches with which a linguistic study of the English language would not be really concerned.

(ii) (*b*) English may be used as the medium of instruction in secondary schools to those who are being prepared for the matriculation only in such subjects in which it is absolutely necessary at that stage of education.

(*c*) I am not satisfied with the kind of training now given in English before entrance to the University. Ten long years are spent in schools during which the direct method of teaching English should give better results. The object should be to teach the language, and not the literature, which might be pursued in the University by those alone who like linguistic studies. Boys in schools should be taught how to read and write English correctly so that they might be able to acquire all up-to-date knowledge of the civilised world through the medium of the English language.

(*d*) I would draw a distinction both in school and university between this practical training in the use of the English language and training in the study of English literature.

(*e*) The matriculation examination may be conducted in the vernacular in all subjects except English, mathematics, and science; and in all subjects except English if the technical terms now in use can be adopted by the Indian vernaculars.

(*f*) English need not be taught to all students during their University course. For those whose general course of study may be other than linguistic the teaching may be imparted in English or in the vernacular as the teacher finds it convenient.

(iii) In the pre-University, as well as in the University, courses the vernacular may be used as the medium of instruction and of examination at all stages only in those subjects in which it can be conveniently utilised when suitable text-books are available in the vernacular.

MAITRA, GOPAL CHANDRA.

(iii) English language and literature should, as now, be an important and compulsory subject for the University and pre-University examinations, but the medium of instruction and examination in the other subjects may be either English or the student's vernacular, whichever is found more convenient.

MAITRA, HERAMBACHANDRA.

(i) I beg to invite attention to what I have said on this subject in my answer to question 1.

(ii) (*a*) University students should have sufficient knowledge of English to be able to profit by the courses of instruction prescribed by the University, though this may not be "an adequate command of English" from the point of view of those whose vernacular is English, which may be insisted upon in the case of candidates for honours in English at the B. A. examination.

(*b*) In subjects like mathematics and geography instruction may be given through the medium of the vernacular, though English terminology should be retained.

(*c*) From my experience as a teacher I have come to the conclusion that a text-book in English should be prescribed as part of the English course for

the matriculation, and history (including a history of England, which should be descriptive rather than scientific) should be a compulsory subject for the matriculation.

(*d*) There should be no distinction at school between "practical training in the use of the English language" and "training in the study of English literature". A certain amount of training in the study of English literature should form an essential part of the arts course.

(*e*) Matriculation candidates are now given the option of answering questions in history in the vernacular. This may be extended to geography and mathematics, but English terminology should be retained.

(*f*) For those who do not take up a literary course for the B. A. instruction should be given in English composition, and a text-book written in simple English may be prescribed.

MAJUMDAR, BIRAJ MOHAN.

) and (iii) Up to the matriculation standard all the subjects except English may very well be taught in the vernacular, and students ought to be allowed to write out their answers in the vernacular. This may, in future, be extended gradually to the college classes as well. Students will then be in a position to have a thorough grasp of the subjects which they have to study, and the unnecessary strain upon them would be considerably diminished. No doubt, it will take a long time before even books may be had in the vernacular dealing with all the subjects. But, unless an attempt is made in this direction now, it will never be within the range of possibility in the future.

MAJUMDAR, PANCHANAN.

.., I do.

(ii) (*a*) No; I do not.

(*b*) English should be the medium of instruction in the first four classes of secondary schools.

(*c*) No; I am not.

I am not competent to speak on these matters, but it appears to me that the direct method of teaching English and the conversational method may be employed with advantage.

(*d*) In school I would, but I would not do it in the University, where I think the former should be subordinated to the latter.

(*e*) Yes; I do.

(*f*) Yes; I do.

In the case of such students the standard of knowledge of English should not be high, but only such proficiency in the subject ought to suffice as will enable them to express their ideas clearly to others.

MAJUMDAR, RAMESH CHANDRA.

(i) No.

(ii) (*b*) The English technical terms may be retained, especially in those cases where suitable equivalents are not to be found in the vernacular.

(*c*) No.

(iii) The ideal would be to impart the highest training through the medium of the vernacular. This should, however, be gradually accomplished, beginning with the matriculation at once, extending it to the intermediate in five years' time, and to the B.A. in the course of another five or ten years. The interval would be employed in securing good books in Bengali written on various subjects.

MAJUMDER, NARENDRAKUMAR.

(i) No; but English may be used as the alternative medium of examination (according to the choice of candidates) at every stage above the I.A. and I.Sc. examinations in the University course.

(ii) (*b*) To *no* extent.

(*c*) I am not at all satisfied with the kind of training now given in English before entrance to the University. After eight to nine years' training in English a matriculate can scarcely write or speak correct English, not to speak of fluency. Surely no one ever can be, or ought to be, satisfied with the training, spread over eight to ten years' time, which produces such miserable results.

The first defect in the system is the commencement of training in English at so early a period when the mind is all but developed which is, under the present system, indispensable because when the boy comes to the high *English* school his medium of education will be English. It is submitted that *if boys are permitted to take up English for the sake of the language at a later period, say, at the age of twelve or thirteen, they can learn better and quicker.*

The "direct" method of teaching ought to be introduced.

Conversation in English is, to a great extent, independent of erudition in English. A man may be highly educated in English literature and still be a very bad speaker. Power of conversation arises from practice *Conversation in English should be introduced from the very beginning, even before the student has an acquaintance with the English alphabet.*

Simple forms of letter writing should be taught as soon as boys have finished the first book of reading, whatever it may be.

Boys should acquire *practice in writing simple descriptive essays* not exceeding, say, ten lines, and the writing of such essays should be insisted upon.

If the method of teaching is direct the *elementary principles of grammar* may be taught orally from the very beginning.

(*d*) Practical training in the use of the English language should not be spread over sixteen to eighteen years of a man's life, as it is at present, with results as miserable as possible. In high English schools only practical training is to be imparted, which will be continued, not necessarily more extensively, but more intensively, in the first year or two at the University. Students of English literature and students of other subjects should separate only after this stage. It is a mistake to try to impart training in English through the medium of Milton's *Paradise Lost*, Book I, to a student who will never perhaps in his whole life have any opportunity of reading *Paradise Lost*, Book II. That time might be better employed in essay writing or conversation.

(*e*) The matriculation examination should *not* be conducted in English in any subject except in the subject of English.

(*f*) Yes; intensive practical training should be given to every student during the first year or two of his University course. Besides reading books every student must also be capable of writing and speaking English. But the student whose general course of study may be other than linguistic should learn at this stage, besides English, at least one other continental language, only to the extent that he may read any paper or book in the subject he is interested in, but he will not be required to write or speak in that language.

(iii) English should be introduced not earlier than the fourth class of high English schools of Bengal, but it should never be made the medium of education in schools or even during the first year or two of the University course. In high English schools the direct method of teaching English should be adopted, and conversation, correspondence, essay writing, and only simple grammar (not Rowe's Hints) ought to be introduced.

If English is not the medium of education the time and energy that will be released will be quite sufficient for learning seven other subjects, *e.g.*, mathematics,

Sanskrit, history, geography, and civics, art—pictorial and plastic—constructive art and music, natural science, elementary economics, insurance, etc., besides English, during the eight years or so before the student leaves the school for the University.

In the University, instead of the I.A. and I.Sc. examinations of the present day, we may have an examination after one year only, called the previous examination, and all students for the previous examination should get an intensive practical training in English. During this period the medium of education and examination in other subjects should *not* be English.

MAYHEW, The Hon'ble Mr. A. I.

(i) My answer to this question is in the affirmative so far as existing universities and their courses are concerned. I have seen no signs of any widespread demand among the educated classes in this country for any reversal of our present policy in this respect. Until such a demand arises, and until there is more proof than has been adduced so far that the disadvantages arising from the use of the various vernaculars as media of instruction are likely to be less than the disadvantages arising from the use of English, I would deprecate any change. The use of English as a medium of instruction binds together the educated classes of all parts of India and brings them into touch with the Western world of learning. At the same time, I think that there is room for experiment in the development of higher education through the vernaculars. Such experiments would be most useful provided that they are conducted in response to a clear popular demand and without detriment to the further development of higher education through the medium of English. It seems to me possible that such experiments may accompany the development of university work in Native States.

(ii) (*a*) The students' command of English at the outset of their academic career is wholly inadequate in the two universities with which I am acquainted. This can most easily and satisfactorily be established by a reference to the answer papers of successful matriculation candidates. The intermediate examination results also confirm what I believe to be the opinion of practically all lecturers in the intermediate classes.

(*b*) and (*c*) English should be used as the medium of instruction so far as is possible in secondary schools preparing for university courses. By "so far as is possible" I mean "so far as is compatible with an understanding by the pupils of the subject matter, and with the avoidance of undue strain on the mental and physical resources of the pupils". Though it is possible that for pupils who do not proceed to university studies instruction through the vernacular in all subjects except English might be the wisest course such a procedure is not practicable in the preparation of pupils for university courses as constituted at present, and as they must, so far as I can see, continue generally to be constituted in future. It is impossible to lay down any rigid rules in regard to the stage at which English should be introduced as a medium. If English were begun earlier, and were taught by more efficient teachers, particularly in the early stages, and if the secondary school curriculum in subjects other than English could be reduced (for University candidates), I think that the use of English in the final stages of the school course would be far more effective and less conducive to cramming. Students well prepared in English could learn quickly in the initial University stages much that is at present taught laboriously and with poor results in our secondary schools. A lengthening of the secondary school course (for university candidates), or the insertion of a new type of institution between the secondary school and university, is obviously attractive to the educationist, but presents economic difficulties that have, so far, been found insuperable.

MAYHEW, The Hon'ble Mr. A. I.—*contd.*—MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN —MAZUMDAR, C. H.

(*d*) I consider this distinction most necessary. In our secondary schools practical training in the use of the English language should predominate. Even if there were time in our secondary school course for thorough training in the study of English literature I fear that we have not the teachers to carry out this training. At the same time, a small—very small—portion of the best literature must be read (and portions also committed to memory) by all pupils in our secondary schools. This amount must be increased in respect of all university students. The teacher who really loves literature will use this small portion quite as effectively as a larger amount, and his aim will be to develope in his pupils a desire to read more on their own account. But the time spent on such purely literary work must be very much less than the time devoted to training pupils and students to speak, write, and understand English correctly. Such training can, and should, be given in connection with all subjects of instruction. To put it crudely, an essay on a historical, scientific, or geographical subject has, for the ordinary pupil and student, more practical value than an essay connected with the reading of general literature, and much of the time now devoted to conversation about Shakespeare's plots and characters might more usefully be devoted to conversation on subjects other than English, of the school and college curriculum.

(*e*) If the matriculation examination is not conducted in English I can see no means of ascertaining whether candidates have been adequately prepared for university instruction through the medium of English, and teachers will be inclined to underrate the importance of using English [subject to provisos in (*b*), above] as a medium of instruction.

MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN.

(1) It is a vexed question which has undergone long discussions since the days of Rajah Ram Mohan Ray. Considering all the *pros* and *cons* English should still continue to be the medium of instruction, though not in every subject, not to the extent to which it is carried at present; *e.g.*, Sanskrit, Persian, or Arabic should be taught as independent languages, and not as mere auxiliaries to English education. A passage in English may well be asked to be translated into Sanskrit, Persian, or Arabic, as the case may be; but to ask a candidate when testing his merit on these subjects to translate a passage in these languages into English is to test his knowledge in English, and not in any of these languages. Generally speaking the medium of instruction in any country to be effective should be the mother tongue of the people of that country. But, here, the Bengali language has been considerably improved and enlarged through the medium of the English language, but it is not yet sufficiently rich to dispense with that medium. If an adequate impetus be imparted towards the further growth and development of the vernacular languages a time may come for a change in the medium of instruction imparted by our universities.

I have already said that sufficient training is not given in English before entrance to the University, and have suggested that, instead of a multiplicity of indifferent books few of which are thoroughly studied, the University should revert to the old system of prescribing a course book containing selections from approved authors both in prose and poetry, which should be properly taught for two years so as to initiate the student into the spirit of the English language; while the examination should be so conducted as to test his knowledge without cramming.

MAZUMDAR, C. H.

(1) Yes; except in technological subjects, where instruction may be given in the vernacular, if necessary.

MAZUMDAR, C. H.—*contd.*—MCDOUGALL, Miss ELEANOR—MITRA, KHAGENDRA N.—MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur.

(ii) (*a*) No.
(*b*) The medium of instruction should be English, at least in the top three classes of a secondary school.
(*c*) No; English should be taught by trained teachers with special proficiency in the subject.
(*e*) Yes.
(*f*) Yes; except for boys studying technological subjects.

MCDOUGALL, Miss ELEANOR.

(i) English is essential for the present. I do not know what may be the case in Bengal; but in South India it is most important that the student, if he is to study Western learning at all, should acquire the mental habits induced by the use of a precise, clear, and concise language such as English, which has long been a vehicle for scientific and scholarly thought.

MITRA, KHAGENDRA N.

(i) and (iii) The kind of training now given in English to students of our high schools is quite unsatisfactory. By following a scientific system of learning a language a matriculate may gain in less time much more than students of the same standard do at present. The following improvements may be suggested:—

(A) To begin the study of English at an advanced age, when a student is expected to possess a fair amount of knowledge of his own vernacular.
(B) To require of matriculation students a more intensive and systematic study of English composition and grammar.
(C) To introduce in English texts for matriculation pieces from elementary scientific books so as to enable students to gain elementary scientific ideas.
(D) To study English literature, together with the use of the English language, only in the college course.
(E) To teach Sanskrit and Bengali through the medium of Bengali up to the M.A. standard, and to use Bengali as the medium of examination.
(F) To allow the use of Bengali a free scope, as far as possible, in the teaching of other subjects in the B.A. and M.A. classes.
(G) To use Bengali as the medium of teaching of history and also of examination in the same in the intermediate and B. A. classes.
(H) To use English as the medium of the matriculation examination in none of the subjects except in English.

MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur.

(i) At present, most of the books on scientific and mathematical subjects are written in the English language. For the present, therefore, English should be the medium of instruction, but efforts must be made to write books on those subjects in Bengali and, after that, Bengali may be the medium of instruction. But, at the same time, I should suggest that the study of English literature should be a compulsory subject at every stage up to the B.A. and B.Sc. examinations. I should also suggest that the teaching of English literature should be by Englishmen if possible.

(ii) (*a*) At present, some students, on their entrance to the University, have no adequate command of English, but I have suggested some methods in my answer to question 8 by which students after passing the matriculation examination can receive adequate training in English.

MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur—*contd.*—MITRA, RAM CHARAN—MITTER, Dr. DWARKANATH.

(*b*) The vernacular may be the medium of instruction in matriculation classes in subjects other than English, but attempts should be made to give students adequate training in the English language in order to enable them to understand instruction given through the medium of English. The present standard of the study in English in matriculation classes may be continued.

(*c*) I have suggested, in my answer to question 8, some methods by which students after passing the matriculation examination can receive adequate training in English. After that students should be admitted to the University.

(*d*) Practical training in the use of the English language should be simultaneous with the training in the study of English literature, and adequate tests as to fitness in both these branches should be made.

(*e*) It is not essential that the matriculation examination in all subjects should be conducted in English, but the present system may be continued.

(*f*) Yes; for students whose general course of study may be other than linguistic. I should suggest that the history of the particular subjects of their study, with special reference to their discovery and use, should be taught and, in addition thereto, they should be given a general knowledge of the English language. I wish that some select extracts from the works of the best English authors distinguished for excellence of style, and biographies of great men (especially scientists), may be prescribed for their study. The standard may, however, be lower than that of the arts department. In India the mother tongues of the different provinces are different and, as English is the only medium of exchanging the thoughts of the people of different provinces, I should suggest that the study of English literature should be compulsory throughout.

MITRA, RAM CHARAN.

(i) Yes.

(ii) (*a*) Not adequate. I have already submitted my suggestion. See my answer to question 8.

(*b*) English should be the medium of instruction in every subject, *e.g.*, English, history, geography, and mathematics.

(*c*) The standard in English should be raised.

(*d*) Training in the study of English literature is different from practical training in the use of the English language. The former should form a subject for higher education while the latter should be taught both in schools and colleges.

(*e*) Yes; it is indispensable because all extant books on scientific subjects are in English.

(*f*) Yes; the way in which English is now taught in colleges is not adequate even for students who are not going in for language. Students should be taught to converse in English, and they should have more written exercises in English.

MITTER, Dr. DWARKANATH.

(i) My answer is in the affirmative.

(ii) (*a*) No; they have not an adequate command of English.

(*b*) In secondary schools English should be taught, but mathematics, geography, history, mechanics, etc., may be taught in the vernacular.

(*c*) No; I think it desirable that we should revert to the old system of having prescribed text-books in English for the matriculation examination; for proficiency in a foreign language can be better acquired by reading a few text-books with great care and attention, rather than by glancing over a number of books.

(*e*) Yes.

(*f*) Yes ; I would advocate that English be made a compulsory subject for those who take up a science course up to the B.Sc. stage.

MITTER, The Hon'ble Mr. PROVASH CHUNDER.

(i) Yes ; with the exception of oriental languages.

(ii) (*a*) Yes ; but I would lay special stress upon the ability of students to speak English and to understand that language.

(*b*) English should be a compulsory second language and should be taught by the direct method. Great attention should be paid to ability to converse in English and to understand English.

(*c*) No ; I have already suggested the direct method and the importance of conversational powers in English. I would also lay great stress upon the ability to translate freely vernacular thoughts into English.

(*d*) Yes.

(*e*) No.

(*f*) I have already indicated my views. I would suggest that ability to express oneself in English and to understand thoughts expressed in English should be the main object kept in view

MOHAMMAD, Dr. WALI.

(i) English should be used as the medium of instruction at every stage above the matriculation in the University course. This is necessary not because we do not love our vernaculars (of which we have, unfortunately, too many), not because it will require too much time, money, and energy to get books translated into our vernaculars, but because English is becoming the medium of communication between the educated classes of India, and because India has to take her place not only in the councils of the Empire, but in the Empires of the world.

(ii) (*a*) University students, on their entrance to the University, do not possess an adequate knowledge of the English language, and are unable to follow intelligently lectures in any subject. This makes them feel tempted to memorise and to cram their work instead of understanding it properly. At present no one can take the B.A. degree without studying English for four successive years after joining the University—and this to the detriment of study in other subjects.

(*b*) Students should, for at least *three* years after joining the primary school, study every subject in their vernacular. After that English should be taught as a compulsory second language, and the teaching should be undertaken by the best teachers according to the latest "direct" methods. The study of English should continue to the highest class. The medium of instruction in all subjects (except English), and in all classes, except the highest two classes, should be the vernacular, and not English. Candidates may have the option of answering the examinations at the end of their school course in English or in the vernacular in all subjects except English. By this means a better knowledge of the vernacular will be gained, and closer interest in vernacular studies will be engendered. Not only will students be enabled to know their own vernacular well, but the school will be brought closer to the homes of pupils. Above all, the subjects taught in their own language will become more of a reality to pupils. There will be a thoroughness and a solidity which are, under the present system, conspicuous by their absence.

(c) The training given in English before entrance to the University is not up to the necessary standard. As said above, English has to be studied as a compulsory subject both in the intermediate and B.A. classes. Thus, a student has to devote a substantial part of his four-years' course to the acquisition of a knowledge of English literature and language while his real object is to study some other subject. This compulsory study of English for a student studying medicine, engineering, philosophy, or economics means a great waste of time. Two alternatives as to improvement in this direction may be suggested :—

(A) If the intermediate classes are relegated to the school, and the school course lengthened, these two years should be mainly devoted to the study of the English language. Teachers should be duly qualified and must, at least, be able graduates.

(B) If the intermediate classes are not relegated to the school then the first year at the University should be devoted mainly to the study of English. (The course for the B.A. degree would, in their case, be of three years' duration.)

(*d*) Knowledge of the English language is essential as a medium of instruction, as a vehicle of thought, and as a medium of communication, but knowledge of English literature is not essential for these purposes. One who knows the language can, with a little effort, study the literature in that language. The greatest service the schools can render to the cause of higher education would be to pay proper attention to the teaching of the English language. The standard aimed at should be such as may enable every student entering the University to follow intelligently lectures delivered on any subject.

It is rather difficult to make any distinction between the English language and English literature for students studying in the school. This distinction should be made for college students, and the English language and English literature should form two distinct branches of study. Why should every student be compelled to read a couple of Shakespeare's plays or Milton or Spenser or study industriously the language in which Chaucer or Dryden wrote his books and learn by heart things little of which he cares for, and most of which he imperfectly understands ?

MONAHAN, The Hon'ble Mr. F. J.

In the course of my official work I have had considerable opportunity of judging of the knowledge of English possessed by the average youth who has passed the matriculation examination of the Calcutta University and I am satisfied that the great majority of those who pass that examination is quite incapable of following intelligently lectures given in English. I am convinced that the use of English as the medium of instruction and examination in the University course is chiefly responsible for the very low standard of what is called "higher education" in this country.

While saying this I do not wish to dispute the soundness of the decision to impart higher education through the medium of English at the time when it was taken by the Government of India. At that time the indigenous systems of education in India had fallen into decay. The history of education in India before British rule remains to be written. I do not know that the subject has ever been thoroughly investigated—at any rate it is very inadequately dealt with in official publications. However, there are indications that in ancient times, and down to the eve of the Muhammadan conquest, many branches of higher study were assiduously cultivated at various centres of education in India and that, in particular, physical science had made considerable progress in Bengal about the time of the first Muhammadan invasion of this province In later times Hindu learning declined from various causes, chief among which, no doubt, were foreign invasion and conquest; the study of science was neglected, and learning was degraded, chemistry degenerating into alchemy, astronomy into astrology, philosophy into

MONAHAN, The Hon'ble Mr. F. J.—*contd.*

magic, by a process comparable to the disappearance of arts and sciences from Western Europe as the result of the barbarian invasions during what are called the dark ages of European history. The study of Sanskrit literature, grammar law, theology, and philosophy, however, survived in the Sanskrit *tols* down to the time when the Government of Bengal passed to the British. Eminent British orientalists of the school which shortly afterwards arose in Bengal were interested in the ancient history of India, and attracted by the beauties of Sanskrit literature they perceived also the necessity, for administrative purposes, of encouraging the study of Hindu law. They found among the Hindus no serious study of physical science They were not in a position to make any close investigation of the Hindu systems o philosophy, and they mistook the allegories, in which philosophical ideas were clothed for fantastic theories with regard to physical phenomena, or " the fairly tales of Hindu imagination ".

As to the state of Muhammadan education in Bengal at that time I have not much information. It appears that in the higher Muhammadan educational institutions grammar, rhetoric, logic, literature, jurisprudence, and science were taught. Probably the course of physical science in those institutions was of a rudimentary kind owing to general causes which had arrested the progress o science in the Islamic world generally and, perhaps, others special to the position of Muhammadanism in Bengal. There was no living Bengali literature, and the fact that there had ever been a literature in Bengali was almost forgotten. The future of the Bengali language and literature could not be foreseen. At the same time large numbers among the Hindus of the higher castes showed great aptitude and eagerness in acquiring English.

Probably the only practicable means of diffusing Western knowledge and ideas in India which could then have been adopted was that of giving higher education solely through the medium of English, and it cannot be denied that this method has been attended with considerable success, and has conferred great benefits on India in the moral, as well as in the material, order.

What I submit is that this method, as the *sole* method of higher education countenanced or assisted by Government in this country, has become out of date that it is no longer necessary, and that it is having a bad effect in stunting and retarding the intellectual development of a naturally gifted people.

After a century and a half of British rule English has not become the language of any important section of the people of Bengal to the extent of being their mother tongue. To the great majority of people of all classes in Bengal English is now, and, so far as can be foreseen, is likely always, to remain a foreign language and Bengalis are not exceptions to the general rule among human beings in that they find it easier to acquire knowledge through the medium of their mother tongue than through a foreign language. When forced, as a condition of making a living, to learn subjects through the medium of English, and pass examinations conducted in that language, they, naturally, fall back on that powerful instrument, their memory, and it is not surprising if, as I am told, students of the University are disposed to look upon attendance at lectures as a useless formality, and a waste of time which might be more profitably employed in " study " after the modern Indian method, that is, in learning passages of text-books by heart. I notice that parents of students, who are, for any reason, prevented from attending college for a time, are concerned not on account of any interruption of the young men's education, but because they may be unable to make up their " percentage of attendances."

There are some classes of people in India for whom instruction through the medium of English is suitable, namely, Europeans and Anglo-Indians, and some few Indians (a very small number at present) for whom English is really their home language and mother tongue, but for the great majority of boys and young men in India it is, and for an indefinite time, probably will remain, practically impossible to acquire at an early age such a knowledge of English as would make English for them a suitable medium of instruction at any stage of their University course. Still less is English a suitable medium of instruction for the great majority of boys in secondary schools.

I think it is very generally recognised that a majority of students who pass the matriculation examination of the Calcutta University have not enough knowledge of English to enable them to follow courses of English lectures with

MONAHAN, The Hon'ble Mr. F. J.—*contd.*

advantage, but a remedy, which seems to find favour in some educational circles, is that of improving the teaching of English in schools by the employment of English headmasters, or of Indian masters specially trained under Englishmen, and, at the same time, considerably raising the standard of the matriculation test. I think that a little reflection on the practical conditions of the problem should suffice to convince anyone that, for financial reasons, as well as other reasons equally cogent, this solution is not practicable.

It is very easy to form an exaggerated idea of the progress which the English language has made in India. We find a rapid spread of English education, and a great demand for it; in Calcutta and other centres of population a large number of educated Indians, who talk English with apparent fluency; Indian officials, professional men, merchants, industrialists, politicians, and journalists, who conduct business in English. We find educated Indian gentlemen from different parts of India using English as a means of communication with one another. But, on a little closer acquaintance, it is discovered that, subject to a very few exceptions, the conversation of these gentlemen in English covers a somewhat restricted range of ideas. The English vocabulary of Indian lawyers, politicians, and journalists is limited and, in their speeches and articles, they repeat the same phrases in a somewhat wearisome manner. The most highly educated Bengalis—distinguished barristers, high officials, members of the Legislative Council—when conversing among themselves use Bengali, often no doubt, with an admixture of English words. In short, with very few exceptions, the educated Indian using English is at much the same kind of disadvantage as an Englishman when using any foreign language which he knows well. He is not quite free in expressing his ideas—often, perhaps unconsciously, he says not exactly what he means, or would like to say, but what he happens to know, or thinks he knows, the English for, and he fails to do justice to himself.

On the other hand, the Bengali language has developed greatly since the time when the English policy in higher education was adopted, and there is now a vigorous and growing Bengali literature, so that there will be no real difficulty in teaching all subjects through Bengali if that method of instruction is encouraged by Government and the University. Suitable Bengali text-books are, no doubt, at present wanting, but such books, or Bengali translations of English text-books, would be produced very rapidly with proper encouragement. If it be objected that the Bengali language lacks certain scientific terms. I would say that such terms may easily be borrowed by Bengali from other languages, as they have been borrowed by the English language from Greek and Latin There exists in Sanskrit a rich store of scientific words which can be introduced into Bengali naturally and easily; besides, new words may be formed to an almost unlimited extent from Sanskrit roots. Or it may be found more convenient for Bengali to borrow words from Greek or from Latin or from English. The Bengali language has taken in the past many words from Persian and Arabic, as well as from English, and it is constantly taking new words from English. The existence of different languages in the different countries of Europe does not prevent each European country from profiting immediately in its education by every advance in knowledge achieved in another country while using its own language as the sole medium of instruction within its borders, and there is no reason why the use of Bengali as the general medium of instruction in Bengal should prevent Bengal from keeping pace with the general progress of the civilised world.

The increased use of English in official proceedings and records in India may be used as an argument in favour of the continuance of the present method of higher education; in fact, it is partly a cause, and partly a result, of the development of education through the medium of English but I do not think that it has had a good effect on administration. Elsewhere will be found a copy of a memorandum, which I drew up in 1908, as a note of dissent* from the report of a committee appointed to enquire into the remuneration of clerks and the organisation of work in district offices in the former province of Eastern Bengal and Assam, of which I was a member. Since then, I have been employed as Commissioner of two divisions in Bengal, and have been constantly engaged in inspecting district offices, and I have been more and more impressed with the loss of efficiency and waste of power and time which have resulted from the excessive use of English in

* See question 15 in Volume XI.

MONAHAN, The Hon'ble Mr. F. J.—*contd.*

such offices. A matter of detail, but of some significance, is the contrast between the neat and clear entries made in Bengali in old registers and the slovenly and illegible handwriting in the present registers kept in English. In this respect the registers of the average collectorate compare nowadays most unfavourably with the Bengali books of zamindars' offices. In making suggestions now with regard to the use of English in official work I would go somewhat further than I did in my note of 1908. A Bengali pleader in court, addressing, in confused and halting English sentences, a Bengali magistrate no more familiar with English than he is himself, in the presence of parties in the case and representatives of the public who do not understand a word of what he is saying, is, to my mind, a melancholy as well as a ridiculous, spectacle. And, while it is the practice now to invest all Indian subordinate magistrates and lower grade civil judges with power to record evidence in English, the record made in English by a Bengali magistrate or judge of evidence given in Bengali is, almost always and necessarily, inaccurate. Official documents, such as judgments, orders, and reports, composed in English by Bengali officers, are usually deficient in clearness and accuracy and, while elegance of style is not expected in such compositions, it is very necessary for good administration that they should be clear. As part of the administrative changes which are in contemplation we may expect that, eventually, all the higher district officials of different departments will be Indians and, when this comes to pass, there will be no logical reason for keeping in English any official records or proceedings except those of Government itself, the high courts, and some heads of departments.

I think that some Englishmen who advocate the use of English as a medium of instruction in schools and colleges are influenced by natural enthusiasm for the Imperial idea. They value the English language as a bond of union in the Empire and dream of its becoming the common and universal language of India. The idea is attractive, but I submit that it is not practical. We may get an idea of the extent to which English is likely to be adopted as a common language in India within a measurable time if we consider the duration of Muhammadan rule in this country, the number of Muhammadan immigrants from the North-West during that period, and the extent to which they settled permanently in India, the extent to which Persian or Urdu was adopted as a common language in India, and the extent to which Englishmen, or descendants of Englishmen, have settled permanently in this country.

I think that we may reasonably hope that the permanent incorporation of India in the British Empire will not be dependent on the adoption of English as a general and common language in India. Then, it may be said that English is the commercial language of the world, and especially of the "Middle" and "Far" East. This is true, but there are also many examples which show that to attain success in commerce or industry a very small amount of knowledge of English, or indeed of education, of any kind suffices. The millionaire Marwari merchant of Barabazar has not taken the trouble to learn English, and employs a Bengali B.A. on Rs. 40 a month to conduct his English correspondence. Though a good general education, including English, should be an advantage to an Indian in every walk of life, yet if the main object were to make as many Indians as possible commercially and industrially efficient, probably the best plan would be to help them to acquire as quickly as possible at school some form of "pidgin" English, in addition to arithmetic and book-keeping, and apprentice them at an early age to a commercial or industrial business. In the report of the Indian Universities Commission of 1902 (paragraph 17) there is a passage which suggests a comparison between teaching through the medium of English in Indian schools and colleges, and the practice of teaching various subjects through the medium of Latin, which formerly prevailed in Europe, but I submit that there is really no analogy between the two cases. There would be an analogy if the people of India, as a whole, had adopted some corrupt form of English as their common language, had embraced the Anglican form of Christianity as their religion, and were accustomed to hear the English Bible and Book of Common Prayer recited in their churches.

It seems to me that in a country like India, with its great variety of races, languages, civilisations, ideals, religions, and philosophies, it is a mistake to impose on the whole population one method of higher education through the medium of a foreign language and uniform sets of uniformity courses, at the same time making the University examinations the sole avenue to employment in the middle and

MONAHAN, The Hon'ble Mr. F. J.—*contd.*—MUKERJEE, ADHAR CHANDRA.

higher ranks of the public services and in the professions. I think that a good deal of the discontent prevalent among Indians of the upper and middle classes is traceable to this. I would suggest that, on the one hand, University examinations should cease to qualify for posts under Government, subject, possibly, to certain exceptions in the case of technical departments, and that, on the other, the University should be organised on a more catholic principle, and should admit to affiliation colleges and other institutions of higher education teaching different courses, and using different languages as their media of instruction, only assuring itself that the standard of teaching is sufficiently high. For the great majority of students the most suitable medium of instruction would be their own mother tongue, or "vernacular"—to use the official expression—but, for some, English would be a suitable medium of instruction. I would leave students free to choose the course which they will follow, the University only insisting that the matriculation examination for admission to any course shall thoroughly test the student's knowledge of the language which is to be the medium of instruction in that course. For admission to a college or a course in which English is to be the medium of instruction the standard of English in the matriculation examination should be much higher than it is at present. For admission to other colleges and courses the matriculation examination might include either no English at all, or only elementary English, as a test of general education.

I should anticipate that under such a system the great majority of University students in Bengal would enter colleges or courses in which the medium of instruction would be Bengali, but for some there would be colleges or courses in which the medium of instruction would be English, for others it might be Hindi or Urdu. I think that the Sanskrit College, Calcutta, and higher grade Sanskrit *tols*, as well as institutions for Islamic studies throughout the province, should be affiliated to the University.

Under such a system there would no longer be general University examinations for all affiliated institutions. There would be different examinations for different institutions, or for groups of institutions teaching the same course, the examination being conducted in every case in the language in which the course was taught. According to the character and importance of the different institutions, and the wishes of their governing bodies an institution might be left to hold its own examinations, the University merely satisfying itself that they were properly conducted, and up to a fairly highly standard, or the University might help affiliated institutions by holding examinations for them. Obviously, under this system, the degrees of all colleges would not have equal value, but this does not seem to be a serious objection. Degrees obtained from different colleges would find their different levels of value in general estimation, it being the business of the University, however, to see that none fell below a certain level. Sanskrit colleges and *tols* would confer their own special titles, as heretofore.

MUKERJEE, ADHAR CHANDRA.

(i) Above the matriculation English should be the medium of examination for the use of the vernaculars as the medium of examination is, at present, not possible; but for purposes of teaching mixed English and the vernacular is possible.

(ii) (*a*) No; neither of English nor of the vernacular.
(*b*) The vernacular should be used as the medium of instruction, not English.
(*c*) No; a better knowledge of composition is required. [Easy text-books by standard writers should be read in the classes, as well as at home; there should be constant exercises in translation (from English into the vernacular) and re-translation (from the latter into the former); boys should be taught how to express long stories concisely; they should also be taught the rules for the use of the direct and the indirect narration and of the sequence of tenses; there should be constant exercises in letter writing, essay writing, etc.].
(*d*) There is a distinction, and both should be cultivated.
(*e*) No.
(*f*) Such teaching as will improve the knowledge of English composition.

MUKERJEE, Dr. ADITYANATH.

(i) I would insist upon English as the medium of instruction in the case of the major subject only [kindly see my answer to question 9 (i)].

My reasons are that thought and language are correlative, that there can be no development of either without that of the other. I do not think that the vernaculars have made enough progress in respect of range and elasticity of expressive power to be the vehicles of ideas in a subject in its advanced stage in which the student is proceeding to specialise.

(ii) (*a*) and (*c*) Kindly see my reply to question 8.

(*b*) The medium of instruction should be the vernaculars and, in the case of scientific and technical subjects, a mixture of vernacular and English.

(*d*) Except when English happens to be the major subject, in which case it should be studied as English *literature*, I would teach English solely with a view to give the student a thorough working knowledge of the *language*.

(*e*) No; except when the subject itself is English.

(*f*) Yes; English should be taught to all students throughout their University course—it should be a 'compulsory' subject [as suggested in my reply under question 9 (i)], and the training should be purely practical unless it be the honours or major subject.

The University should create boards of studies of the several vernaculars of the province, and the changes to be introduced should be left to these boards.

MUKERJEE, BIJOY GOPAL.

(i) Yes; except in the case of the second language and the vernacular.

(ii) (*a*) A good number of the students who enter the University has an adequate command of English; still it is desirable that the matriculation examination in English should be a little more stiff than at present.

(*b*) From class III upwards English should be the medium of instruction in subjects other than the second language and the vernacular.

(*c*) and (*d*) As from an early stage of a student's career he should receive not only a practical training in the use of the English language, but also a training in the study of English literature, I am not in favour of the present system of recommending a large number of books for the matriculation examination in English as merely showing the standard up to which a candidate will be expected to read. This generally leads to a superficial and haphazard study of a few books, and the student is not sufficiently encouraged to form a habit of serious study with all diligence and attention. It is, therefore, extremely desirable that the University should prescribe some text-books in English for the matriculation examination.

(*e*) In subjects other than the second language and the vernacular the matriculation examination should be conducted in English.

(*f*) Yes; until they pass the B.A. or the B.Sc. examination. It is only when a student begins to study for the B.Sc. degree that he may be allowed to discontinue the study of fine literature but, even then, he should have some training in the use of the English language, and some prose text-books may be prescribed for him, as presenting models of style.

MUKERJEE, RADHAKAMAL.

(i) The objective ought to be to use the vernacular as the medium of instruction at all stages in the University course, which will save a great deal of time and intellectual strain, and develope precise and clear understanding and originality.

MUKERJEE, RADHAKAMAL—*contd.*—MUKERJI, SATISH CHANDRA—MUKHERJEE, B.

(iii) There are already proper text-books in the vernacular on the different subjects, and no difficulty will be felt in using Bengal as the sole medium of instruction in secondary schools and in the University course up to the I.A. and I.Sc. standards. In the B.A. and M.A. standards the teacher should have the liberty to use the language that is natural to him. English must continue to be taught as an optional subject in secondary schools, and a compulsory subject for students taking up University courses for degrees. But the teaching of English will have to be improved. The teaching should be more and more by the direct or semi-direct method. Composition and literature should be more and more emphasised than prescribed texts, and the oral exercise system be more and more introduced.

MUKERJI, SATISH CHANDRA.

The first, and the most difficult, question that arises in connection with Indian education is what should be the language by the help of which students will acquire knowledge. Some subjects, like history and geography, can be taught in Bengali in the school classes. But under the present circumstances of Bengal, it is not practicable to teach in Bengali, though it is true that most of the energy of students is used up in acquiring a mastery over the English language and literature. What I suggest is that for general students enough knowledge of modern English prose to enable them to read English books on different subjects and express their ideas in tolerable English is all that is necessary. If the style of English written by a medical man or an engineer be poor it may be tolerated considering the difficulty experienced by a foreigner in learning the language. Modern novels like those of Stevenson and Conan Doyle should be read instead of English classics as modern English will be learnt more easily in this way. Students should be specially trained to carry on conversations in English correctly pronounced as it is generally found that Bengali college students, though they may know English pretty well, cannot talk English correctly and fluently, and cannot understand the lectures delivered by English professors, for they do not know the correct English pronunciation. In order to remove this defect it is necessary that school teachers of English should be trained in the pronunciation of English by Englishmen in the college of pedagogics, and these trained teachers should make it a point to teach pupils how to talk English correctly and fluently. Debating in English should form an important part of the teaching of English.

Only those who are to take up the professions of law or journalism or teaching of languages are to have an additional course in English literature (as already mentioned in my answer to question 1). The energy economised in connection with the learning of English by general students will be profitably spent in acquiring a knowledge of the natural sciences and the different branches of Indian history and geography.

MUKHERJEE, B.

(i) English should be the medium of instruction and examination at every stage above the matriculation in the University course. English is fast becoming the only common medium for educated Indians throughout the country, and nothing should be done to impair its extended use.

(ii) (*a*) In my own experience as a teacher in the M.A. classes of the Calcutta University for three years (1914-17) as an assistant to the Minto professor of economics, I have found that students are, generally speaking, very poorly equipped, and have very little real command over the English language. It was a part of my work in the University to look over tutorial papers in economics. The answers of students, generally speaking, revealed a deplorable lack of command over the English language. Of course, there were good papers and good students who could write chaste and correct English, but the majority

of the students wrote very bad English, and their papers were full of such grammatical and idiomatic mistakes as one never expects to find in M.A. students. So much as regards writing good English. As regards speaking good English, here, again, there were some students who were really admirable, but the majority steadily refused to stand up on their legs and open their lips, and it was a very difficult problem amongst us professors, which gave us many anxious moments, as to how to induce the students to stand up and speak.

My experience as a professor in the Diocesan College for Girls in Calcutta is quite different. Here, I lecture on Indian economics, and the total number of my students is less than 20. The girls in this college write very good English and, in my examination of the tutorial work, I am generally very much pleased with the chaste and idiomatic English which they write. I have also found in my conversation with the girls, both in and outside the class-room, that they talk very good English, and that quite fluently too—even though the girls were B.A. students whereas my students in the University were all M. A. students.

The reasons are not far to seek. While some of my students at the Diocesan College are *English* girls and, therefore, quite naturally, have a very good command over the English language there are other *Indian* girls in my classes who also have an admirable command over it. The reason is that more attention is given to the girls' command over the language in this college and in the collegiate school—from where most of the girls in the college come—than in most other places. The girls, most of whom are resident boarders, have to live with the European Sisters all the time and, necessarily, they manage to pick up a better knowledge of the English language than students elsewhere whose conditions of living are quite different.

(*b*) In the pre-matriculation stage the best medium for instruction is the vernacular. The case for adopting the Indian vernaculars as the media of instruction in secondary schools was so ably stated in the Imperial Council by Mr. Rayaningar on the 17th March, 1915, that I take the liberty of quoting a portion of his speech here :—

"A little examination will reveal the superior advantages of imparting instruction through the vernaculars. If any real knowledge is sought to be communicated to an unmatriculated boy the medium of the mother tongu must have undoubted advantages. The mind of the boy is not distracted there is no diffusion of energy ; it is only the difficulties of the subject which the mind is left free to face. And, owing to the concentration of mental energy, the difficulties are overcome and knowledge is acquired. But, if the attention is diverted to the difficulties of a foreign tongue in addition, the immature mind naturally fails to assimilate either the language or the knowledge it is sought to convey. This leads to one result, the mechanical repetition of half-understood sentences. In fact, cramming is encouraged, and the boy learns neither the vernacular nor the foreign language properly. Throughout the course there is no education in the real sense of the word. The defects of the early training endure in all after-life. Is it a wonder that with this defective training most of our graduates are not able to do anything great in life, and all their energy is spent in unproductive work ? The case of those who fail in the entrance examination is still worse. They are stranded in life. They are not eligible for even the very lowest appointments in the public services. They are useless for industrial or commercial careers. They feel unhappy and discontented. Their lot will not be so bad if they had a sound secondary education through the medium of the vernacular. Then they would have at least gained sufficient general knowledge to help them on in qualifying themselves as skilled artisans or independent traders. A sound vernacular education, again, is less likely to divert

students from their hereditary professions than a superficial English education." (Page 188, *Gazette of India*, part VI, dated 27th March, 1915.)

Further, as Mr. Rayaningar argued, no great extension of female education is possible in this country without a vernacular basis for our secondary education. "How many among our girls," he remarked "can afford to waste their time in the unprofitable pursuit of present-day secondary education? It is obvious that, as it is, we cannot make much headway in the matter of female education. If, on the other hand, vernaculars are made the media of instruction in secondary schools, female education will gain ground not only directly, but also indirectly. I say indirectly because when boys read in vernacular their lessons of general knowledge their girl relations, too will be able to pick up some knowledge of the subjects. Besides vernaculars being used as the channel of instruction, vernacular literature will multiply. It is through the vernaculars, and vernaculars alone, that knowledge can reach the masses." (Page 189.)

There is an overwhelming weight of opinion in the country in favour of adopting the vernaculars as the media of instruction in secondary schools. Among those who support this view may be mentioned Sir Gooroo Dass Banerjee who in his *Education Problem in India* remarked:—

"Sentiment, no doubt, is in favour of making the vernacular the modium of imparting knowledge, and reason supports that sentiment to a great extent . . . I, therefore, submit that, in the secondary course, *i.e.*, up to the matriculation examination standard, subjects, other than English, should be taught in the student's vernacular wherever practicable."

Sir Asutosh Mukherjee is, I believe, also of the same opinion as appeared from his convocation address of 1907:—

"At the matriculation stage the course must be so framed as to include subjects that would train and develope some power of expression, some power of reasoning, and some power of observation. To give students some power of expression unquestionably the best medium is his own language, in the first place, with the structure and literature of which he ought to have a tolerable familiarity."

On the whole, therefore, I would advocate the adoption of the vernaculars as the media of instruction in all secondary schools though, of course, it would be easy to refute some of the arguments which are advanced to support this case. The balance of advantage, however, lies in favour of the vernaculars being adopted in the pre-matriculation stage which will help students to have a far better grasp of the difficult subjects with which they deal than now, when they have to contend with the additional handicap of a foreign language which they do not understand or appreciate very well.

(*c*) I have no recent experience and I, therefore, regret my inability to answer this question.

(*d*) Both in the school and in the University, apart from the regular study of English literature as governed by the University syllabus, practical training in the use of the English language might be given by essay competitions, debating clubs, reading of papers, college magazines, short conversational classes, where both professors and students will meet and talk with a certain degree of freedom on matters, whether in or outside the texts.

(*e*) Yes; so far as it is practicable.

MUKHERJEE, JNANENDRANATH.

(i) No.

(ii) The use of Bengali, wherever possible, will make it easier for students to grasp their subjects. A limit to the free use of Bengali is set by the present resources

of the language. Our language is rich in works of fiction, general literature, philosophy, and history. There is a dearth of suitable text-books in other subjects.

(iii) At present, Bengali should be introduced in the intermediate course. Until suitable text-books in the language appear standard text-books in English should be freely used. Students should also be freely allowed to borrow and use English words and expressions. For technical terms or nomenclatures they should be given no option. The current nomenclature must be adhered to. This arrangement will greatly lighten the work of students, and will thus relieve the strain the current system entails upon them.

Steps should be taken simultaneously to encourage the study of English literature. Under the new conditions the average student will be able to devote more time and attention to the study of English. The standard of proficiency required in the English language must not, on any account, be lowered. The suggested improvements in the methods of examination will also stimulate the study of English literature. Bengali literature is developing very rapidly, and it is hoped that it will soon be possible to extend the use of the language to the graduate course.

In the pre-University course students should begin to study English from the lowest classes along with Bengali. The course of study in English at any stage should be recast so as to include, besides suitable texts in English prose and poetry, British history. All other subjects should be taught in Bengali. The course in English should also be amplified with texts from the best works suitable to the age of the boys.

MUKHERJI, PANCHANANDAS.

(i) Yes; I hold that English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course.

(ii) (*a*) I do not think that the majority of our University students have, on their entrance to the University, an adequate command of English. I would refer here to my observations on question 8.

(*b*) English should be used as the medium of instruction only in the highest two classes of secondary schools.

(*c*) *Vide* my answer to question 8.

(*d*) Such a distinction may be drawn in schools where students should be trained in the correct use of the English language; but training in the study of English literature should begin after the matriculation stage.

(*e*) No option should be given to students to answer questions (except those on English in English) or in their own vernacular.

(*f*) English should be taught to all students during their University course up to their degree examination. But for students whose general course of study is other than linguistic (I include under this class those students who have taken up science subjects) I would advocate a higher practical training in the use of the English language (especially in original composition).

Murarichand College, Sylhet.

(i) The vernacular should be the optional medium of instruction and examination except in English (where the medium must be English). (***Carried by a majority of three.***)

(ii) (*a*) No.

(*b*) In the highest two classes the medium should be English as far as the teaching of English is concerned. In all other classes every subject should be taught through the medium of the vernacular.

Murarichand College, Sylhet,—*contd.*—NAG, J. C.—NAG, P. N.—NAIK, K. G

(*c*) No; introduction of text-books; penalising of schools where boys are found to use cram notes and keys; provision of better teachers, preferably M.A.'s, to teach English from the lowest classes; and conversational classes. Unseens and translation and composition, as at present.

(*d*) Yes; practical training in the use of the English language should be encouraged.

(*f*) English literature compulsory in the intermediate and B.A. In the B.Sc. the practical use of the English language, for which scientific essays may be prescribed as text-books.

NAG, J. C.

(i) English should be used as the medium of teaching in the university course.

(ii) (*a*) No.

(*b*) English should be made compulsory for those students who are being prepared for the matriculation examination.

(*c*) No; I should like to suggest that English should be taught in high schools by means of good English readers, and some facility for conversation in English should be given to students.

(*d*) For those who are not trying to specialise in English literature a sound practical training in the use of the English language is necessary.

(*e*) Not necessarily; students may be asked to use their own vernacular in answering questions at the examination. But this should not hold good with regard to the examination in English.

(*f*) Students should be taught how to compose in English. They might also be taught how to express themselves in English. For this purpose a year or a year and a half's training in English may be made compulsory at the University.

NAG, P. N.

(i) Yes.

(ii) (*a*) Yes; most boys, on their entrance to the University, do not perfectly understand the lectures in the college classes, which are given through the medium of English on account of the vernacular being made use of largely in the upper classes of high schools.

(*b*) In the first two classes in secondary schools the medium of instruction should be English in order to give to a student greater facility of understanding a subject. Conversation in English should be largely practised.

(*c*) The training now given in English before entrance to the University is not satisfactory. Most often a student does not perfectly understand an English passage selected from even the books recommended by the University. A large number of English text-books is recommended which he has neither the time nor the patience to read carefully before he sits for his examination. Text-books of moral and hygienic importance should also be recommended. The present matriculation does not appear to me any improvement on the former.

(*e*) Yes.

(*f*) Yes; English should be a subject of study for all students up to the B.A. and B.Sc. degrees during their university course except in the case of second language and vernacular.

NAIK, K. G.

(i) During my nearly nine years' experience in Bengal I gathered that students have little difficulty in grasping new ideas through the English medium. But it

would certainly be advantageous to teach through the Bengali medium in schools and at the matriculation. An option might be given to boys to answer their papers in the vernacular or in English. So far as college courses are concerned a sort of combined effort to give the lecture *via* English and Bengali should be made. It would take nearly ten years before one would venture to suggest teaching *via* Bengali in the first two years at college. So far as science is concerned the senior degree classes should be taught through the English medium. I am not conservative; a fair trial should be given by a free use of the vernacular media up to the matriculation. If the experiment succeeds we can then adopt it thereafter. With Bengali as the medium for instruction English must be made compulsory.

NANDI, MATHURA KANTA,

(i) Yes.

(ii) (*a*) No.

(*b*) Text-books at the high school stage should be in English (in such subjects as history, geography, mathematics, etc.), suited to the capacity of the boys at the particular stage, but the vernacular should be freely used in exposition, whenever necessary, though the medium of instruction should be mainly English.

(*c*) No; none but trained teachers (B.T.'s or L.T.'s) should be placed in charge of English even in the lowest classes, to teach the subject on the modern improved system—the conversational method.

(*d*) In secondary schools the teaching of English should mainly take the form of training in the use of the English language, though some taste for literature should not altogether be lost sight of. Greater stress should be laid upon the latter aspect in colleges, especially in cases where the course of study is linguistic.

(*e*) With the improved method of teaching English there is no reason why the matriculation examination should not be conducted in English in all subjects.

NANDY, The Hon'ble Maharajah Sir MANINDRA CHANDRA.

(i) Yes; the University should use Bengali, as far as practicable, as a medium of instruction. Bengali should be the main, if not the sole, medium of instruction up to the I.A. and I.Sc. standards, and special efforts should be made to translate the best books from English, French, and German.

NANJUNDAYYA, H. V.

(i) Yes; except where the subject requires another language such as Sanskrit, etc.

(ii) (*a*) Not adequate in general.

(*b*) After the lower secondary stage English should be the medium of instruction, but in the examinations answers in all subjects except English, mathematics, and science, may be optionally given in English.

(*c*) I think the so-called direct method is a snare and not likely to give good results. It is the fashion to cry down grammar and grammatical exercises, but without drill in composition, etc., the standard of English acquired has distinctly deteriorated.

(*d*) Yes.

(*e*) On the whole, I think the matriculation should be conducted in English. Only as we have done in our University, I would increase the secondary school period by one year and reduce the college course to three years.

NANJUNDAYYA, H. V.—*contd.*—NEOGI, Dr. P.

(*f*) In our University we have reduced the English course a great deal for those students who take the B.Sc. course. What those persons who do not wish to make a speciality of English (language and literature) want is a practical knowledge (composition, etc.), and they need not go into the niceties of grammar and philology.

(iii) Though I have answered question (i) in the affirmative I should like to give a short answer to this also as I think that a parallel course should be instituted and brought to perfection by degrees, allowing a candidate to reach the standard of the B.A. degree culture at least through instruction in the languages of the country. English should all along be studied as a language subject, and instruction in all other subjects should be given in the vernacular. The study of English may well begin after passing the lower secondary stage, or perhaps a year or two earlier. This presupposes that persistent and adequate steps will be taken to provide proper books written in the languages of the country and the employment of teachers who can handle subjects properly in these languages.

NEOGI, Dr. P.

It would be convenient to answer questions 11 and 12 together as both relate to one subject, *viz.*, the relation of the vernaculars to University teaching.

In dealing with this subject it should be clearly recognised that, so far as the vernaculars are concerned, *Bengal is fortunately placed as there is only one major vernacular, viz., Bengali*, which is spoken both by Hindus and Muhammadans. But as the jurisdiction of the Calcutta University extends at present to Assam and Burma the question of Assamese and Burmese may also be considered. I hope, however, Burma will shortly have her own university so that the question of the Burmese language does not concern us, but Assam, I am afraid, shall have to wait much longer before she claims, and obtains, a university of her own and, therefore, Assamese forms a vernacular, though a minor one, in relation to university teaching. In addition to Assamese, Urdu, Hindi, and Oriya would be regarded as other minor vernaculars, as, though the province of Bihar and Orissa has got a separate university, many inhabitants of Bihar and Orissa have been living in Bengal. We are thus concerned with five vernaculars—Bengali being the major, and Hindi, Urdu, Oriya, and Assamese the minor, vernaculars. Of these, Bengali is the most highly cultivated and progressive language, and books in all branches of learning are multiplying as years are passing. Recently, I made inquiries if text-books exist in Bengali, so far as different scientific subjects are concerned, with a view to having Bengali as a medium of science teaching*. I found that in many science subjects text-books already exist and others are in preparation or in contemplation.

The second point in this connection is to clearly recognise that the study of the English language is indissolubly connected with university education primarily for three reasons, *viz.*:—

(A) English is the court language of India;

(B) English has become the *lingua franca* throughout India amongst educated people and no single vernacular can hope to take its place; and

(C) English is the medium through which Western science and thought of an advanced character will have to be imparted into India for a long time to come.

Having premised these two points it would now be necessary to determine whether English should continue to be the medium of education in secondary schools and colleges or whether English may be taught as an indispensable second language and may be replaced, at least partially, by the vernaculars as the medium of instruction.

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* I contributed an article on the subject embodying my inquiries, together with a list of books in each science subject, in the Bengali monthly magazine "Bharat barsha."

NEOGI, Dr. P.—*contd.*

I would now proceed to examine these two alternatives. My own views on the subject are the following, and I have reasons to believe that they are the views of a very large and increasing section of my educated countrymen :—

(1) *Primary education should be entirely conducted through the medium of the vernaculars.*

(2) *English should be taught as a compulsory second language in all secondary schools.*

(3) So far as the case of Bengali students (Hindus and Muhammadans) is concerned *Bengali should be the compulsory medium of secondary education, and Bengali candidates for the matriculation examinations should be required to answer question papers in all subjects in their mother tongue. In the case of students having Assamese, Hindi, Urdu, or any other vernacular they should be given the option to answer questions either in their vernaculars or in English.* I propose this distinction between Bengali and the other minor vernaculars as the latter may not contain suitable text-books. At present, candidates have been given the option to answer questions in their vernaculars so far as history is concerned. This option has not much been availed of by candidates for the reason (which I have learnt from head masters of secondary schools) that headmasters advise the students to read history through the medium of English, their argument being the students thereby would learn more English. Unless that system of compulsory answers in Bengali be introduced in all subjects in the matriculation the experiment of having the vernaculars as the medium of instruction will not succeed. As regards text-books in Bengali they already exist so far as history, geography, arithmetic, geometry, etc., are concerned, and *I believe that text-books in all subjects of the matriculation standard would be forthcoming the very year the scheme is introduced.*

The reason why we insist that primary and secondary education should be entirely imparted through the medium of Bengali is not far to seek as *ninety per cent of the difficulties of school students lies in the fact that they have to learn their subjects in their infancy through the medium of a foreign language.* When I see my younger brothers and young children committing to memory pages after pages of books written in a language which they do not understand for the purpose of disgorging their newly acquired knowledge in answer papers I cannot conscientiously blame them for their habit of cramming. If secondary education be conducted in the vernaculars a much larger number of subjects may certainly be taught than at present, and the very low standard that prevails in the matriculation examination may easily be raised.

(4) So far as *collegiate education* is concerned the medium should *gradually, though in stages,* be altered from English to Bengali as advanced text-books, especially in science, come to be written in that language. For the present, the scheme given below may be adopted with advantage.

(A) B. A., B. Sc., and higher teaching should be wholly through the English medium.

(B) In the I. A. and I. Sc. standards history, logic, and chemistry may be taught in Bengali whilst mathematics, physics, and botany should be taught in English. A good plan for encouraging the study of all subjects in the vernaculars in the I. A. and I. Sc. standards would be to *grant candidates the option to answer the questions in their vernaculars.*

One objection may legitimately be made, *viz.*, that Europeans teach in many colleges. This objection may easily be met by making Bengali the optional medium of instruction in the I.A. and I. Sc. standards.

(C) So far as the B.L., M.B., and B.E. studies are concerned I would recommend that they be conducted in English, but *in medical school like the Campbell Medical School and Dacca Medical School, Bengali should*

NEOGI, Dr. P.—*contd.*—NEUT, Rev. Father A.—North Bengal Zamindars' Association, Rangpur.

be the medium of instruction, especially as the Bengali language is rich in medical literature.

From the consideration of the question of the vernaculars as the medium of instruction I would pass on to consider what position the teaching of *Bengali literature* (I confine my remarks to Bengali literature as I am not sufficiently acquainted with the literature of Hindi, Urdu, and other vernaculars) should occupy. At present the study of a vernacular subject is compulsory in the matriculation, I. A., I. Sc., and B. A. examinations for which a certain number of books is notified as specimens of style. I would respectfully urge that this system be replaced by a graduated system of systematic study of Bengali literature, prose and poetry, modern and mediæval, together with the history of modern Bengali literature. I would also submit that an *M.A. degree in Bengali be instituted* which would demand the widest knowledge of Bengali literature, and would also include the philology and history of mediæval Bengali literature. As the subject may likely be an easy one I would suggest that there be *two classes, instead of three,* in which the successful candidates in the M. A. examination in Bengali would be arranged, and that a candidate shall have to obtain *70 per cent and 50 per cent marks in order to be put into classes I and II, respectively.* I hope these M. A.'s in Bengali will be the real masters of the Bengali language and literature and will make very successful professors of the language in schools and colleges.

NEUT, Rev. Father A.

(i) It stands to reason that in an English university English should predominate. The medium of instruction and of examination, above the matriculation at the very least, should, therefore, be English. How, otherwise, could students derive the full benefit from the study of English literature and of science conveyed through English works? Students will never sufficiently master the language unless it be constantly used in the instruction given and they have to face an examination conducted in English?

(ii) (*a*) On their entrance to the University students, at present, have certainly not an adequate command of English.

(*b*) English should be used solely—except, of course in so far as a comparison with the vernaculars serves towards the better understanding of the teaching— as the medium of instruction in secondary schools.

(*c*) The training in English is, at present, far too bookish to be satisfactory. I would strongly recommend the direct method which succeeds so remarkably where it is applied by a teacher who has taken the trouble to make himself acquainted with it. Anyone can test for himself the result, in one school at least known to me in the north of Calcutta, under a devoted Indian and some assistants trained by him. The school, I understand, has been visited by some members of the Commission, and the educational authorities of Bengal have praised it highly.

(*e*) The matriculation examination in all subjects should be conducted in English; otherwise, it becomes impossible to exclude from the University course those who are unable to follow it.

North Bengal Zamindars' Association, Rangpur.

(i) Yes; English should be used as the medium of instruction, but not necessarily of examination, at every stage above the matriculation in the University course. The student should be given the option of answering questions in all subjects, except English literature, in their own vernacular. This will minimise the danger of cramming students with notes and sketches which generally inflict upon them many a sleepless night and rob them of their health.

North Bengal Zamindars' Association, Rangpur—*contd.*—PAL, The Hon'ble Rai RADHA CHARAN, Bahadur—PARANJPYE, The Hon'ble Mr. R. P.

(ii) (*a*) A great majority does not have it.
(*b*) Except in English literature the medium of instruction in secondary schools should be both English and the vernacular, students being given the option of choice; for, in that case, ambitious students will have an opportunity of mastering English better, and students of average merit will find their course easier provided that there is no preferential treatment in examination.
(*c*) Specified books should be recommended by the University. Notes and sketches should be strongly deprecated.
(*d*) Yes.
(*e*) Both.
(*f*) Yes; such students whose course of general study may be other than linguistic should have only a general education in English.

PAL, The Hon'ble Rai RADHA CHARAN, Bahadur.

(i) Not necessarily; only so long as suitable text-books in the vernaculars are not available.

(ii) (*a*) Yes; only in case English is retained as a medium of instruction.
(*b*) Not at all; steps, however, must be taken that students are taught English, both for speaking and writing.
(*c*) No; there should be fixed text-books. Greater attention should be paid to English composition. Students and teachers should also be encouraged respectively to study and read to the classes suitable books other than text-books, and questions of a general character from these may be set for examinations.
(*d*) Yes; attention should be specially directed towards learning the English language at school. English literature should not be tried except in the University courses.
(*e*) Certainly not.
(*f*) Yes.

PARANJPYE, The Hon'ble Mr. R. P.

(i) At present, the vernaculars should not be used as media of instruction and examination at any stage above the matriculation. These are not so used even at the matriculation at present. They should be optionally used for the matriculation, and the question should be left over until experience is gained. At the same time, the question is not so urgent in the case of the University course. Students should get enough knowledge of English by the time they matriculate to be able to use it for the study of other subjects, and the transition from the vernacular to English as a medium of instruction should be complete in the first two years of the college course.

(ii) (*a*) Even the staunchest vernacularist considers that university students should have an adequate command of English. This is a *sine qua non* of Indian progress; and I would not press the claim of the vernaculars even at the matriculation if it were to jeopardise the command over English on the part of the student.
(*b*) I should make use of the vernacular in teaching subjects other than English in secondary schools, though I would not mind using English text-books if suitable vernacular books are not available. Of course, I would give an option to schools to use English, if they like, in the teaching. Teaching through the vernacular would be ineffective unless the examination is also through the vernacular.

PARANJPYE, The Hon'ble Mr. R. P.—*contd.*—PEAKE, C. W

(*c*) The teaching of English can be, and ought to be, considerably improved in schools. A greater amount of reading, and a good deal of practice in speaking, should be insisted upon in schools. Intricacies of grammar should not be given importance. If it were possible I would like an oral test in English; but, as it is not practicable, I would do all I can to place the matter prominently before headmasters, and find out by means of inspection if it is being carried out.

(*d*) In school a distinction should certainly be drawn between a knowledge of the language and a knowledge of the literature. But in the University it is important that the study of the two should go together, the first having more importance in the earlier stages but the second getting more and more important in the later ones. All the present advance of India is due to the study of English literature and of the ideals it embodies by Indians. Nothing should be done to cut away the source of these ideals. By the time that every young man is a graduate he should have some acquaintance with some of the masterpieces of English literature and, if he specialises in any of the literary subjects, he should have a fairly good knowledge of the history and tendencies of English thought and letters.

(*e*) I have already answered this in (*a*), above, and consider that option should be given to answer all subjects in the vernacular.

(*f*) English must be taught to all students for the first two years of their course at least. For students whose course of study is not linguistic a detailed course in the older English classics—especially in poetry—need not be insisted upon. They should be encouraged to read good English prose, though I believe it is not possible to find a place for an examination in English in the last two years. It would not be so difficult to require a fair proficiency in writing an essay. I think that in colleges there should necessarily be a few hours a week reserved for the rapid reading of English for each class of students and this should be entrusted not to the regular professors of English, but to those who teach the students their regular subjects. Practice in English composition and in making a connected speech for a few minutes would be a very desirable addition to the student of science or mathematics. But all this should be done in a thoroughly practical, and not in a pedantic, spirit.

PEAKE, C. W.

(i) I consider that English should be used as the medium of instruction and examination at every stage above the present matriculation stage. English should also be used as the medium of examination at any examination constituted at the present entrance stage, but in classes of high schools reading up to that examination I should give the authorities of each individual school some latitude as to the extent to which they should use English as the medium of instruction.

(iii) (*a*) There is no doubt that University students have ordinarily not acquired an adequate command of English by the time they reach the present entrance stage, though, to be fair, it must be remembered that the standard required is a fairly high one. It requires no small command of a foreign language to be able to follow lectures and to express one's self clearly by its means on a variety of subjects, and I doubt whether many English schoolboys ever reach this stage at the time they leave school.

(*d*) In order to improve the student's working knowledge of English I regard it as essential that a distinction should be drawn between practical training in English and training in the study of English literature, and I believe that the main chance of effecting improvement lies in this distinction being rigidly observed. The most effective step in this direction would be to have no

PEAKE, C. W.—*contd.*—People's Association, Khulna—RAHIM, The Hon'ble Mr. Justice ABDUR.

English text-books or questions on grammar in the examination and to limit the examination to a test of the student's capacity to render successfully unseen passages of modern English into his vernacular and *vice versa*. It would be impossible to cram in an examination of this kind, which would be the best possible test of the practical character of the student's knowledge of the English language. Further, students would soon realise that their best training would be the systematic reading of modern English books, and a direct result of this would be a wide extension of general knowledge on their part. At the examination at the intermediate stage the compulsory test in English should be of the same character, but of a higher standard of difficulty, and English literature should be an optional subject except for those students who propose to take this subject for their B.A. examination.

People's Association, Khulna.

(i) Our answer is a strong affirmative.

(ii) (*a*) Ordinarily not.

(*b*) Speaking broadly the vernacular should be maintained as the medium of instruction.

(*c*) We are not satisfied. We suggest the following improvements most emphatically :—

(A) Text-books should be prescribed and taught as literature, and questions should be set on them in examination.

(B) All schools affiliated to the University should have well-qualified teachers to train the boys.

(C) The University should prescribe a graduated course for all the lower classes of the school.

(*d*) Except in English the examination should be conducted in the vernacular.

(*e*) A course of general instruction seems to be desiable in the case of all University students, but it must be so arranged as not to make an unduly large demand upon the time of those students whose general course of study is other than linguistic. For this purpose some simple and general course of instruction must be devised for such students.

RAHIM, The Hon'ble Mr. Justice ABDUR.

(i) Yes.

(ii) (*a*) Generally, yes ; in Madras.

(*b*) To the full extent ; at least for six or five years before the matriculation.

(*c*) Better training ought to be given in speaking and writing the language. The first is altogether neglected at present in most schools.

(*d*) In schools the curricula of English should consist mainly of modern writings on subjects of useful and general knowledge and of such poetry and tales as would impart a healthy stimulus to the juvenile ambition and imagination.

(*e*) Yes.

(*f*) In the intermediate I should insist upon a course of English literature—modern authors being given adequate recognition—for all students. Afterwards I should drop it, except, of course, for those who wish to take their degree in that literature.

Here I may observe that the question between English and the vernaculars is one of difficulty and capable only of a tentative and gradual solution. English is the language of the Government, the courts, and public business generally, and also of commerce, and it is fast becoming the common language of the intelligent and progressive middle class throughout India. It contains a richer, more varied, and more scientific vocabulary, and more useful and

better educative literature than any Indian vernacular. It is the only language in India through whose medium we can readily obtain first-hand accurate information about things, events, and peoples all over the world. There can be no question, therefore, that English must be retained as the medium of education in the universities in British India. On the other hand, the vernaculars by the very fact of their being the people's tongues have undeniable claims to adequate recognition. They must have a chance of developing and of being endowed more and more with literatures and sciences. For the present, the test for admission to the University should be the matriculation passed in schools where the medium of instruction has been English for at least six or five years previously. In such schools the vernacular should be a compulsory second language until three or four years before the matriculation. Side by side, let there be schools where subjects are taught up to the matriculation standard in the vernacular, with English as a compulsory second language. This system would allow the vernacular a chance to grow, and such of them as have sufficient vitality and capacity may, in course of time, attain greater recognition as the medium of public business. Then it will be for the University to consider whether it should not adopt it as the medium of higher education.

The attention of the Commission has in all likelihood been drawn to an important experiment that is now being made in Hyderabad by the establishment of the Usmania University in which Urdu will be the principal medium of training throughout. Such a scheme may have a chance of success in a state like Hyderabad where Urdu is the language of public business and the court, and is understood generally by classes which in the near future will avail themselves of higher education. If the Usmania University prove a success the solution of the problem of the vernaculars will have become much easier.

RAY, Dr. BIDHAN CHANDRA.

(i) As far as practicable English should not be used as the medium of 'instruction' in college (at least during the intermediate stage) in any subject except English literature and language. But the "examinations," especially the written ones, should all be conducted in English.

(ii) (*b*) In secondary schools English should be used as the medium of instruction only as far as the English language itself is concerned; all other subjects should, as far as practicable, be taught in the vernacular.

(*c*) The kind of training now given in schools is not satisfactory. I would suggest that the first attempt at the teaching of English should be through conversation, regard being had to an enlargement of vocabulary and the attainment of fluency in speech, rather than to ensure grammatical accuracy or logical arrangement. At this stage of the school career the boy should also learn to articulate properly. Reading from books should come next; then comes oral composition, which should aim at developing the power of free expression and of connected and continuous speech. Written composition, spelling, and pronouncing should then occupy the attention of the student and, finally, grammar should be taught to complete the teaching of English.

(*d*) The training in the study of English literature should follow the course of instruction in the use of the English language. In the higher classes of school, as also in the University, the instruction *in the English language* may be continued, and debating classes, classes for elocution, etc., would promote the knowledge of the language.

(*e*) *Vide* my answer to (i), above.

(*f*) I think that English as a language and English literature should be taught to all students up to the B.A. standard. Leaving aside the medical and

engineering courses, as also training in highly technical subjects, all students studying for the arts, the scientific, or the applied scientific subjects should be taught English up to the B.A. standard. Those who take up purely scientific subjects may get their training in the study of the English language from reading standard books on scientific subjects in English.

(*iii*) In this connection, it is important to remember that it is not necessary, while imparting instruction in scientific subjects, to translate popular scientific names or words into the vernacular. The want of sufficient books on scientific subjects in the vernacular would be supplied, in the near future, by men (who can command the vernacular languages) translating, for the time being, books from other languages into the vernacular. Incidentally, I may mention that one wholesome effect of the supply of such books would be to afford an opportunity of learning such subjects, to those who have not, or cannot, go beyond the vernacular stage of education. I hope the time will soon come when a large number of original contributors to the stock of human knowledge will write in the vernacular.

RAY, Rai BISWAMBAR, Bahadur.

(i) Yes.

(ii) (*a*) No.

(*b*) The medium of instruction in English, history, and mathematics should be English.

(*c*) No; a far better knowledge of English grammar should be insisted upon, and the manner of teaching should be such that each student may be well attended to and more care should be taken of those students who are comparatively deficient

I also suggest that *tutorial* classes be held at least once every week to closely examine the students' progress.

(*d*) Yes.

(*e*) No.

(*f*) Yes; I would advocate practical training in the use of the English language for those students whose general course of study may be other than linguistic.

RAY, JOGES CHANDRA.

(i) No.

(iii) English should be taught as a second language in secondary schools.

The reasons for defective training in English at present are:—

(A) Too early introduction of the language.

(B) Unsuitable text-books.

(C) Undue importance shown to grammar teaching.

(D) Too many books on grammar and also on the English language as readers.

At present, pupils in schools are supposed to acquire a knowledge of the English language, and college students of English literature. But I think schoolboys in many schools are taught in the highest two forms not simple modern English, but often English literature (*vide* the lists of books recommended by the Calcutta University). This should not be the case. Even in colleges I would teach modern English in the intermediate classes, leaving English literature to those B.A. students who would take up linguistic studies. It is no use teaching English classics to those students who do not know modern English. For the M.A. degree in the English language and literature the standard may be made as high as possible. But for the ordinary B.A. degree in English there is not much room for old classics.

RAY, Maharaja KSHAUNISH CHANDRA, Bahadur.

(i) and (iii) No; English being a foreign language most of the time and energy of students are spent in the acquisition of this language and, except in the case of very bright and intelligent boys, they can devote very little time to thinking and developing their ideas on other subjects. Consequently, it is desirable that there should be a bifurcation even as regards the medium of instruction both in the University and pre-University stages. Those bright and intelligent boys who wish to go in for the arts course, and are meant for the Bar or other learned professions, necessarily should have English as their medium of instruction, whereas those who are of inferior intellect, and have not that wide comprehension of things found in the former, should have vernacular as the medium of instruction. In this latter class may be included all science students and students taking specialised technical subjects as those of medicine, engineering, etc. It will be a very good principle if many of the comparatively dull students (and they form a large part of the students joining the University) who are very deficient in English could be eliminated from the very pre-University stage by the creation of special courses of instruction for them in the University and pre-University stages, *viz.*, by the establishment of special classes for them through the medium of the vernacular imparting technical education. As matters stand now all gates of appointments are shut against non-matriculates. They can take up neither medicine nor engineering. If by the establishment of such special classes in the pre-University stages, corresponding to some extent to B classes now existing in some schools, arrangements can be made for imparting a rudimentary training, through the vernacular, for the study of higher technical subjects in the University a large number of students backward in English may be given a chance of shining in other spheres, thus relieving congestion from the general and arts departments of the University, where the medium of instruction must necessarily be English.

The vernacular may also be used as the medium in subjects like Sanskrit, history, etc., both in the matriculation examination and afterwards.

RAY, MANMATHANATH.

(i) *Instruction* above the matriculation need not necessarily be in the medium of English—it may be through the medium of the vernacular or vernacular and English mixed. The Bishop of Madras in a valuable paper on "Indian Education" in the *Nineteenth Century* for January, 1905, points out that the necessity of adopting English as the medium of instruction constitutes the chief difficulty in the acquisition of knowledge. Instruction in English is an unnecessary waste of energy and is, in many cases, an impossible feat. It may be useful to note what the despatch of 1854 had to say on this point. It regrets a tendency to neglect the study of the vernacular languages and lays down that "in any general system of education English should be taught where there is a demand for it, but such instruction should always be combined with such instruction as can be conveyed through the (vernacular) language." Option may be given in some subjects in the intermediate examination only to answer in the vernacular. Although the vocabulary and the terminology have acquired considerable strength during the last few years they are not sufficient yet.

(iii) (*a*) At the present time, students, on their entrance to the University, have not got an adequate command of English, and are heavily handicapped from the very beginning. The present practice of committing to memory ill-understood phrases and texts may be traced to students having received instruction through the medium of English before they had a sufficient knowledge of English to understand what was taught. This has also the effect of

destroying originality and thinking power. They should have an adequate command of English on their entrance to the University.

(*b*) English should not be used as the medium of instruction in secondary schools. This would result in a considerable saving of time—it would not be necessary to teach the same subject at first in Bengali, and then again in English.—and the time saved should be utilised for the teaching of English on a better and a surer basis than what is now adopted.

(*c*) The training now given in English should be improved. Grammar and texts should be taught, and a student should be taught not only to read and to compose, but also to speak correctly in English. Indian schoolboys should be taught from the very beginning to associate English words with the things and ideas they signify. They should also be impressed with the heinousness of a false concord in English.

(*d*) The training in the use of h English language and the training in the study of English literature are both to be acquired, but neither at the expense of the other.

(*e*) The matriculation examination should be conducted in the English language not in all the subjects, but only in English

(*f*) Everybody should read the masterpieces of English literature, no matter whether their general course of study is linguistic or otherwise; there may, however, be special courses for the B.Sc. examination, consisting of the works of Huxley, Bacon, etc.

RAY, Sir P. C.

(ii) (*e*) Yes; except in arithmetic, geography, and history.

RAY, Raja PRAMADA NATH.

(i) Yes.

(ii) (*a*) They ought to have, but under the existing system they have not.

(*b*) To a great extent, from class VI upwards.

(*c*) The kind of training that is now given in English before entrance to the University is not satisfactory. A better class of teachers, with adequate pay and direct methods of teaching, is necessary.

(*d*) Yes

(*e*) Yes; in all subjects except the second language, which should include provincial history.

(*f*) Modern English literature, to a certain extent, is needed also for those whose general course of studies would be other than linguistic.

RAY, SARAT CHANDRA.

(i) Yes.

(ii) (*a*) No; I, therefore, suggested, in answer to question 8, that the standard of the matriculation examination be raised.

(*b*) In secondary schools, by which I mean middle English schools, instruction should be given through the medium of the vernacular in all subjects except English. English should be taught, as far as practicable, on the lines adopted in the matriculation schools, *i.e.*, through the medium of the vernacular, as well as English.

(*c*) No; I would suggest the following improvements:—

(A) The English standard for the matriculation should be so modified as to bring it within the comprehensive power of students, *e.g.*, the present standard comprises various subjects which cannot be easily

understood or assimilated by students. The standard, as I suggested before, should be raised, but, at the same time, it should be such as to interest the student in the study.

(B) Teachers should, as a rule, speak in the classes in simple English, and should enforce interchange of thought between students in the English language, especially in classes.

(C) Exercises in English composition and grammar should be enforced. Students should be required to write essays on various simple and interesting subjects every now and then, and prizes should be given to the best writer.

(*d*) Yes; I would draw a distinction between practical training in the use of the English language and training in the study of English literature in this way, namely, the study of English literature should be reserved for the college students. Practical training in the English language should be begun in the school classes and carried on further.

(*e*) No; the examination in the second language should, as far as possible, be conducted in the same language. The questions should be set in easy English, but the answers must, in all cases, be given in the second language.

(*f*) Yes; English should be enforced, even in the case of students taking up a science course.

REYAZUDDIN, SYED, Quazi.

(i) I hold that English should be used as the medium of instruction and of examination at every stage above the matriculation in the University course.

(ii) (*a*) I consider that University students have, on their entrance to the University, an adequate command of English.

(*b*) As far as possible, to enable them to pursue university studies.

(*c*) A little more knowledge of English is necessary.

(*d*) No.

(*e*) Yes.

RICHEY, The Hon'ble Mr. J. A.

(i) I do.

(ii) (*a*) I do not.

(*b*) I consider that the present extensive use of English as a medium of instruction in secondary schools can only be justified if the following two propositions are accepted as true:—

(A) That the use of English as a medium of instruction in subjects other than the English language improves the student's command of English.

(B) That before a boy can study a subject in college through the medium of English, he must have been trained to think in English on that subject in school.

I hold that neither of these propositions is true. That the first proposition is a fallacy can be practically demonstrated by a visit to any high school in India. The teacher of history for example, is, or should be, solely concerned with implanting in his pupils a knowledge of history. So long as a pupil's reply to a question is historically correct the history teacher should not, and in fact does not, care about the grammatical accuracy of the language in which it is couched, *e.g.*, the boy who says 'Jehangir were the son of Akbar' has as good a knowledge of the historical fact as one who says 'Jehangir was the son of Akbar.' No examiner could reasonably assign less marks in a history paper to the former answer than to the latter. Starting with this assumption the

RICHEY, The Hon'ble Mr. J. A.—*contd.*

teachers of subjects other than English do not insist on accurate English on the part of their pupils, still less on accurate spelling.

During the last six years it has been part of my regular duties to inspect secondary schools. I have been forcibly struck by the condition of the note books in subjects such as history and geography. Either the teacher lays no stress on the quality of the English used, in which case grammatical and spelling mistakes abound (*e.g.*, 'arithmatic' is found almost as often as 'arithmetic'), or, if he insists on good English, the boys reproduce the words of the text book or the teacher. Speaker after speaker at a conference recently held in Lahore emphasised this point, *i.e.*, that the use of English as a medium before a boy has a good working knowledge of English results either in verbal cram or in slipshod English.

The second proposition is based on a psychological, or perhaps I should say physiological fallacy. Given a good knowledge of a language it is perfectly possible for a man to express his thoughts in it on any subject which he has studied in his mother tongue. I never found any great difficulty in expressing my thoughts on history, politics, etc., to a Frenchman in French although I had never studied these subjects through the medium of French. Thousands of foreign students have attended German universities and obtained degrees from them in subjects which they had never previously studied in German. To take one local instance—there is in Lahore an Indian professor of Sanskrit who went to England in 1914 as a Government scholar and was sent to the Paris University in 1915. After two years' work there he obtained his D.és-Litt., the highest degree awarded by the University, for a thesis on Sanskrit literature written in French. He had of course, no knowledge of French when he left India in 1914.

The aim of the secondary school (regarded as a preparatory for a university) should be to educate its pupils intelligently up to the standard required for university study, and to give them such a thorough knowledge of the English tongue as will enable them to undertake that study through the medium of English. By attempting prematurely to make its pupils study in English it fails to educate them intelligently. It should be quite possible for the Indian secondary school to achieve its aim if it attacked the problem in the proper way.

All subjects of the school curriculum (save the English language itself) should be taught through the medium of the vernacular. At the same time, the teaching of English in the higher forms should be revised and brought into correlation with the rest of the school course. The object of the English teaching should be to enable boys to understand and to express themselves in straightforward modern English. Whom do they wish to understand? Obviously their teachers and lecturers in the first instance. What thoughts do they wish to express? Clearly those which their education has given them.

During the last two years at school, when the boys should have obtained a fair general vocabulary, let the teacher of English converse with them on the subjects which they are studying with their other teachers in the vernacular; and let the composition which the boys are set deal with those subjects. I do not mean that the teaching of English should be confined to practice of this nature. Reading, conversation, and composition on other topics to improve their colloquial knowledge of Engish should be continued. But the study of general subjects through the medium of the vernacular will set free a good deal of time now wasted in relearning through the medium of English courses which have been learnt in lower classes through the vernacular, and these additional periods may well be assigned to the English master. It should be his object to enable his pupils to express what they have learnt (and to understand a person speaking on these subjects) in correct and grammatical English. For the matter they will be dependent on their other masters, for the manner on their English master. An exception might be made in the

RICHEY, The Hon'ble Mr. J. A.—*contd.*

case of mathematics which might be taught in English in the highest forms, since in this subject the technical terms used are already English and the need for composing grammatical sentences is almost negligible.

(*d*) This system presupposes a radical alteration in the English teaching in secondary schools. The aim of such teaching should be as expressed in this section of the question, "practical training in the use of the English language." The 'study of English literature' should not be attempted at school. It is impossible for a boy to appreciate the literature of a language until he has a thorough knowledge of its ordinary vocabulary. Disregard of this elementary fact has resulted in the 'babuisms' which are so often a subject for jest. What kind of English is a boy likely to use who has been taught to read and write through the detailed study of Lamb's ***Tales from Shakespeare*** and ***Gulliver's Travels*** (two of the set books for the Punjab matriculation)? He is not familiar with modern English and cannot recognise archaisms; much less the value of literary phrases. The duty of the school is to teach modern colloquial English and, so far as possible, to make the pupils bilingual. There should be much more talking on the part of the boys and less by the teacher than there is at present. Incidentally, this can only be brought about by the provision of teachers who have been trained at normal colleges in modern methods of language teaching. India, and particularly Bengal, is woefully deficient in such institutions.

(*e*) If English were taught on the above lines it should be possible for a boy to answer his papers at the matriculation stage in English in subjects which he has studied through the medium of the vernacular; but there is no advantage gained in making him do so except where necessary.

I look on external examinations solely as entrance tests to further spheres of work or employment. They add nothing to the knowledge a boy already possesses. Regarded in this light it is for the future employer or instructor to state what qualifications he desires in candidates and to devise his test accordingly. The Calcutta University demands, or should demand, in a candidate for admission to its courses: —

(1) A good general education up to a certain standard.
(2) Ability to profit by the courses to which he seeks admission.

If (1) alone were taken into consideration then there would be no reason for examining a candidate in any subject through the medium of English supposing, as I have suggested, that all subjects had been taught him through the medium of the vernacular.

But the University cannot be satisfied as to (2) unless it tests the candidate's power of understanding and answering in English questions on the subjects which he must subsequently study through the medium of English.

This suggests a solution. Candidates for admission to the University should be required to answer English question papers in English on the subjects which they will study during their University career; in all other subjects their papers may be set and their answers may be written in the medium through which they have studied each subject, namely, their own vernacular.

It may be urged in objection that the option of answering papers in the vernacular already exists at the matriculation and is little used. The reply is that the subjects having been taught through the medium of English at school the candidates have had no practice in answering questions in the vernacular, and have, in many cases, owing to their imperfect knowledge of English, memorised the words of their English text-books.

(*f*) If the scheme suggested above for English teaching in schools were adopted the standard of colloquial English possessed by University students on admission should be much higher than at present. It should not be necessary for the University to teach English, except in the the form of English literature, and this only to students who adopt a

linguistic or similar course. (Obviously English literature should not form part of a science course.) It is no part of a university training to teach a modern language colloquially. The wider use of English as a vehicle for thought should be obtained by students through their practice of it in their other studies. Difficulties of grammar should have been overcome in school; the University has only to enlarge the vocabulary. On the other hand, the English literature course of the University should for the first two years, include works of the standard now required to be studied by candidates for matriculation. It should be simple and, at the same time, diffuse.

To summarise the above suggestions:—

(A) All subjects, save English, should be taught through the medium of the vernacular to the end of the high school stage, with the possible exception of mathematics in which the technical terms are borrowed from English.

(B) By adopting the above system a good deal of time would be set free which is at present wasted in endeavouring to teach the pupils through a medium they imperfectly comprehend, and also in revising in English matter which has already been taught in the vernacular. This time should be utilised by the English masters of senior classes for practising the boys in expressing in correct English the knowledge which they have acquired through the vernacular.

(C) At the matriculation examination a candidate who proposes to proceed to the University should be required to answer in English question papers set in that language on the subjects which he will study at the University. In all other subjects, except mathematics, he should be examined through the medium of the vernacular. Candidates not proceeding to the University should be examined through the vernacular, save in mathematics and English.

(D) The aim of the English teaching in the secondary school should be to train boys to understand and speak colloquial English, and to write the language grammatically.

(E) The study of English literature should not be attempted before the University stage. At that stage it should form a subject equivalent to, but not of more importance than, mathematics, history, etc., and should be included in such courses as the University may think suitable. The teaching of colloquial English is not the function of a university.

ROBERTS, DAVID E.

(i) There can be no question that the medium of instruction in science subjects should be other than English.

(ii) (*a*) The great majority, on their entrance to the University, have a far from adequate command of English. They are unable to follow their lectures for the first year or two and, in the case of science students who abandon their study of English after the intermediate stage, many of them are greatly handicapped throughout by their insufficient knowledge of English. They are unable to give expression to their knowledge in examinations and their knowledge of colloquial English is far from satisfactory.

ROY, HIRA LAL.

(i) No.

(iii) Throughout the school course the vernacular should be used as the only medium of instruction and examination. English as a second language—but a compulsory subject for study—should be taught throughout the last five years of the school course. This will give students sufficient knowledge of English to enable them

to read English books on advanced subjects. The use of the vernacular as the medium of instruction in the school course will leave sufficient time for the teaching of other subjects in the school as stated in my answer to questions 1 and 13.

In the University course, also, the medium of instruction and examination should be the vernacular, English being a compulsory subject only for those who take up a course on languages. Students willing to enter the executive or judicial service under Government or the legal profession may, in addition to the prescribed courses of the University, have a special course in English.

In ordinary courses English should be taught as a language, and not as literature, except for those who take up a purely literary course.

ROY, MUNINDRANATH.

(i) English should be the medium of teaching in colleges for yet some time to come.

(ii) (*a*) Students in schools do not get familiar with the English tongue. From the English knowledge acquired in schools to that required to study the college curricula in English is a long way, and there seems to be a big gap between.

(*b*) English should be the medium of instruction in English literature and history; not in mathematics and Sanskrit and second languages.

(*c*) The method followed in teaching English is defective for the following reasons:—

(A) The syllabus is too big and indefinite.

(B) There should be at most two books in prose and one of poetry, altogether *three* books, in the matriculation standard. And passages and chapters should be set apart from them for critical and minute study with regard to meanings, grammar, and giving substances of chapters and stories as a whole.

A thorough study of some portions of the book is needed for a school student in Bengal to get into the English idiom.

(*d*) Boys should be taught to speak and write English while in the bottom classes, by th methods notetl below:—

(1) Teaching them to recite in English chosen passages from their books or from the poets. This should be freely encouraged in hours set apart for these exercises.

(2) A shorter interesting history of English literature which may be introduced in the matriculation class (or in the first year in college) containing the most interesting episodes and the finest lines from the most prominent writers.

(3) An oral acquaintance with the best poets made at school through the teacher, which may help to interest students in the study of the English language.

(*f*) A general knowledge of the lines of great English writers and a fair knowledge of English prose is required from those who will study scientific and mathematical subjects.

ROY, The Hon'ble Rai SRI NATH, Bahadur.

(i) Yes.

(ii) (*a*) No.

(*b*) Except English and history all the other subjects may be taught in the vernacular.

(*c*) No; there should be a prescribed course.

(*d*) Yes.

(*e*) No; only the examination on the subjects of English and history.

(*f*) Those who go up for the degree examination in science need not have English as one of the subjects for examination after they pass the intermediate examination.

ROY, The Hon'ble Babu SURENDRA NATH.

(i) Yes.

(ii) (*a*) Yes; boys who passed the matriculation examination eight or ten years ago had a better knowledge of the English language than those who are matriculating now.

(*b*) I think that, except the examination paper in their own vernaculars, all other subjects should be conducted in English for the matriculation.

(*c*) I am not satisfied with the kind of training now given in English before entrance to the University.

I would suggest that there ought to be text-books, both in prose and in poetry, for the examination. Lectures should be delivered in English in the first two classes in a high English school.

(*d*) No.

(*e*) Yes.

(*f*) English should be taught to all students during the University course. The teaching would vary. I advocate that there should be text-books in English for all students whose general course of study may be other than linguistic.

RUDRA, S. K.

(i) Wherever possible instruction should be given in the vernacular. But the examinations should be held through the medium of English.

(ii) (*a*) No; in the majority of cases.

(*b*) and (*c*) English should be learnt well enough to enable a student matriculating to do all his reading in English with ease. But for purposes of instruction in secondary schools I would have it done through the vernacular as much as possible. This is the only way to bring light into the intellect. For, if I can rouse the budding intelligence and open affections thus, I have done my work as a teacher, and the student will ardently devour English books on all subjects in which he is interested, and the mastery of English would not be difficult. He would not only read with ease, but be able to express himself correctly in English.

(*d*) The answer is 'Yes.'

(*e*) Already answered.

(*f*) No; the study of subjects through the medium of English text-books is, to my mind, sufficient. Students should be encouraged to listen to lectures of general interest in history, literature, etc., and should be encouraged to read privately. Their general knowledge of men and things may be ascertained by a general paper, and by means of essays. Each college may pursue an independent course in this matter, and purely from a cultural point of view.

SAHA, MEGHNAD.

(i) I cannot agree thoroughly on all points. I think that up to the intermediate course, at any rate, free option should be given to teachers in the choice of the medium of instruction. I know from personal experience in coaching students for the intermediate examination that the vernacular is always a better medium of instruction than English.

SAHA, MEGHNAD—*contd.*

(ii) (*a*) The answer depends upon what is meant by "an adequate command of English." If this means that the student, besides having the capacity of understanding English, and reading an English book with ease, should also have the capacity of writing English correctly, I would like to dissent from the view. My own experience is that the acquisition of these two faculties never goes together. A student may follow an English passage quite intelligently, but frequently he is found unable to string together two words of English correctly. It requires time, study, and long practice before this faculty is matured.

I believe that this is the universal experience in all countries where a foreign tongue is, or was, used as the medium of instruction in lieu of the natural one. Here is a frank admission on the part of an Anglo-Indian journal which never misses an opportunity of sneering at Babu English :—

From the "Statesman," January 4, 1918—Occasional Notes :—

"Sir Michael O'Dwyer's experience in learning Russian has had its counterpart in the case of most of those who have ever acquired complete facility in the employment of a foreign language. Some kind of grammatical grounding is almost essential to the correct use of a language, but there comes a time when 'travelling and meeting and talking with all sorts of people' yield far better results than the indefinite continuance of memorising translation exercises and class work. The difficulty, if not the impossibility, of acquiring fluency even in reading by these methods alone is exemplified in the case of the hundreds of English boys who devote ten or twelve years' study to the Latin or Greek languages and are yet unable, two years after leaving school, to read a single classical author for the purpose of enjoyment."

What is true of English boys is also true of Indian boys. Happily, classical languages have long been discarded as the medium of instruction from English universities. At the present time, English is playing the same rôle in our universities which the classical languages once played in English universities.

I recognise, however, that an adequate knowledge of English is a matter of national necessity, and of daily importance to us. Weighing all facts, I believe that the best solution will be to insist from the student the acquisition of the capacity for understanding English, and reading an English book with fluency, but not the capacity for writing English correctly.

(*b*) For reasons which will be adduced later, in my answer to question 13, I would like to see that the vernacular, and the vernacular alone, is used as the sole medium of instruction in all subjects. English should be taught only as a second language, but great stress should be laid upon the acquisition of an adequate knowledge of English, as explained under (*a*), above.

(*c*) No; at present, we teach English by giving exercises in translation and grammar. The effect is that the student can never shake off the habit of "mental translation." Whenever he is required to express anything in English, whether in speech or in writing, the thought first comes to him in his mother tongue, and is then subjected to a process of mental translation, ultimately to be delivered in stilted English.

I believe that this defect can be removed if the "direct method of teaching" is adopted in all classes.

(*d*) Yes; efforts should be made to train students in the correct use of English as used in common parlance.

No; the matriculation examination should be entirely conducted in the vernacular. The examination in the English language and literature should, of course, be conducted partly in English, partly in vernacular.

SAHA, MEGHNAD—*contd.*—SAHAY, Rai Bahadur BHAGVATI—SAPRU, The Hon'ble Dr. TEJ BAHADUR.

(*f*) Yes; for those who adopt a literary profession. But, in the case of those students who want to take a scientific or industrial career, I do not think that English should be taught beyond the intermediate course.

(iii) I would recommend that the vernacular be made the sole medium of instruction in all subjects up to the matriculation. During the intermediate stage the teacher should be allowed the option of choosing his own medium of instruction.

SAHAY, Rai Bahadur BHAGVATI.

(i) I do emphatically hold that English should, for a long time to come, be used as the medium of instruction and of examination at every stage above the matriculation in the University course except in classics, where the medium of instruction and examination should be solely classics—not even the vernacular.

(ii) (*a*) No; I have suggested, in answer to question 8, how to give them an adequate command of English.

(*b*) From the fourth class onwards of a secondary school English should be taught directly, but by teachers who know both English and the vernacular of the students sufficiently well.

(*c*) No; I have indicated the improvement in my answer to question 8.

(*d*) No; the college should give a training in the study of English literature only.

I would restrict the teaching of English in schools to practical training in the use of the English language; but this practical training should be not of "the rule of thumb" order, giving the student just the ability to read, understand, and talk simple English with tolerable ease like an uneducated Englishman, but it should be intelligent and give the student the key to the English language and a command over it.

(*e*) Yes; I do; except in the oriental classes and vernaculars, in which the medium of examination should be solely classics and vernacular, respectively. If any evidence were wanted of the extent of English knowledge required of a matriculation candidate under the existing system it would be found in the concession granted to him to answer his history paper in his vernacular. There is absolutely no justification for such a concession if it is not an admission of the fact that such students may not be able to express their ideas in English. The abolition of this concession, if the examination is properly conducted, need not result in cram. A command over a language is obtained by practice in it, and the option now allowed to answer the history paper in the vernacular, narrows down the ground for practice, and, as such, it is to be deprecated. In its anxiety to relieve mental strain and avoid cram the University has only succeeded in weakening the mental calibre of its students by the means that it has adopted to these ends.

(*f*) English need not be taught to all students during their University course. It should be taught to those only who go in for a degree in English. For degrees in history, political philosophy, economics, science, mathematics, psychology, and logic the teaching of English should be an extension of the practical training in it of secondary schools. For a degree in English the teaching of English should be literary, historical, and critical.

SAPRU, The Hon'ble Dr. TEJ BAHADUR.

(i) At present, and for many years to come, I think English should be used as the medium of instruction at every stage above the matriculation in the University course. I must, however, candidly say that I am a strong advocate of instruction through the medium of the vernaculars, and I feel sure that, if we had a sufficiently large and varied literature in the vernaculars of our provinces, I should not at all hesitate

SAPRU, The Hon'ble Dr. TEJ BAHADUR—*contd.*

to advocate an immediate change. The vernaculars in these provinces (Urdu and Hindi) have been very much neglected in the past and much of the literature that exists (Urdu or Hindi) is the product of pre-British days. It lacks, however, variety and, in certain respects, it is very much undeveloped. During the last decade or so there has been a revival and I look forward to a more rapid development of our vernaculars on correct lines within the next fifteen or twenty years. I think it is clearly the duty of the universities to recognise the importance of the vernaculars as a surer medium of national regeneration and elevation, and if they can only do this I feel confident that the progress will be much more rapid and more varied. I see absolutely no reason why Urdu or Hindi should not be recognised along with Persian, Arabic, or Sanskrit. Speaking with reference to Urdu and Persian, with which I am familiar, I think there is a sufficient amount of poetry in Urdu which students even of the M.A. class could very well study. The progress of Urdu in the past ran on the lines of mediæval Persian. There was a break in its progress by reason of the neglect which overtook it in British times, while the development of Persian literature in Persia in modern times has been surprisingly large. I have every reason to believe that if Urdu is rescued from that neglect and its resources are developed it can form a very effective means of instruction in the University. I think the same remarks apply to Hindi. The main reason why I am so anxious about the development of the vernaculars and their being adopted as the medium of instruction in future is that education in a foreign language has practically killed all originality among us. Even in recent times the best of our work which will stand the test of time has been done in the vernaculars. As it is in Bengal so it is here. The greatest writers in Bengal, men like Sir Rabindra Nath Tagore, have adopted their own mother tongue as the medium of expression. It is the same in the United Provinces. In fiction and poetry, which are the two branches of literature which our men have not neglected in these provinces, their best output is to be found either in Urdu or Hindi. What is to my mind the alarming feature of modern education in India is that, while we possess a superficial knowledge of foreign literature and foreign culture and can, at best, enter into their spirit only as foreigners can, we have nearly forgotten, or are forgetting, everything that is best in our own literature or history. While, seemingly, the number of our graduates is increasing I very much doubt whether our intellectual stock as a nation has correspondingly increased and, excepting certain great names among Indian scholars who would have achieved distinction in the field of scholarship under any circumstances, I do not think that we have produced, during the last generation or so, any real great scholars who have taken the lead in the realm of thought. A good deal of the time of our students is taken up in mastering, or trying to master, the intricacies of foreign grammar and idiom, and in the race of intellectual development this is, to my mind, a serious handicap.

(ii) (*a*) Generally speaking, university students have not, on their entrance to the University, an adequate command of English.

(*b*) I do not think that it is at all necessary that English should be used as a medium in secondary schools for those students who are being prepared for the matriculation in regard to subjects such as the history of India, geography, and mathematics. I am aware that there are certain experts who maintain that this suggestion, if accepted, would lead to a weakening of the knowledge of English. I am not sure that it would, for I think that the time so saved could best be given to a more thorough study of English literature.

(*c*) I am not satisfied with the kind of training now given in English before entrance to the University. Ultimately, the problem resolves itself into a problem of teachers, and the class of teachers in secondary schools who are put in charge of our young boys is scarcely the class that could be trusted to give a really effective training in English. In addition to this, I would suggest that the utmost possible care be taken in prescribing text-books for Indian students. A text-book which would do very well for an English boy in an

SAPRU, The Hon'ble Dr. TEJ BAHADUR—*contd.*—SARKAR, AKSHAYKUMAR—SARKAR, BEJOY KUMAR.

English public school would not seldom be unsuitable for an Indian youth. To expect that an Indian boy residing in the United Provinces who had never seen the sea nor a ship would understand any work of prose or poetry dealing with such subjects, or that he would appreciate anything describing the scenes of country life in England, is, to my mind, absurd. There is a good deal to be found in English literature which is of general human interest, or which has direct relation to Indian conditions of life and thought and, if our young boys are introduced to literature of this class, I think they would have a better grasp of the English language and literature. Again, I have noticed that in recent years an extraordinary amount of stress is laid upon the teaching of grammar. While I am not opposed to it, provided it is done in a reasonable spirit I think an excessive amount of teaching of grammar to our young boys is harmful. I have tried, in the case of some boys and one girl, the experiment of postponing the teaching of grammar until a late stage of their progress, and can say with confidence that they understand English and express themselves in that language far better than nine out of ten to whom grammar is taught in a very artificial manner in our schools.

(*d*) I believe that the study of English literature is the best means of acquiring a correct knowledge of the English language and I am not in favour of drawing a distinction between practical training in the use of the English language and training in English literature. I know a contrary view is maintained by educational experts and I am afraid that there is a tendency to get it recognised more and more in our educational system.

(*e*) No.

(*f*) If the school course is strengthened, and the system of education in the secondary schools is overhauled, I would not insist upon English being taught to all students during the university course. Under the present system, however, I would insist upon its being taught. With regard to students whose general course of study is other than linguistic I would only suggest for their study books of general literature which might enable them to acquire a habit of correct expression, but I would not insist upon a very thorough or minute knowledge of English literature.

SARKAR, AKSHAYKUMAR.

(i) Yes.

(ii) (*a*) No.

(*b*) In all subjects excepting the vernacular and classical languages.

(*c*) I am not satisfied. Rule 10, chapter XXX, University Regulations, is excellent. But the working is defective in most of the schools. Simple rules of grammar should only be taught, without much attention to definition. Composition and translation and the development of the habit of reading a large number of books of suitable standard, and of the power to understand English, should be more attended to. Better teachers are wanted.

(*d*) I do. In the college classes the training should be in the knowledge of literature, while in the school classes it should be confined to that in language.

(*e*) Yes.

(*f*) I think that English should be taught up to the B.A., as at present, but it may not be so in the B.Sc.

SARKAR, BEJOY KUMAR.

(i) No.

(ii) (*b*) In none except partly in the subject of English.

(*c*) No; I would suggest the following improvements:—

(A) English should not be taught before a student has got some knowledge of his own vernacular. The study of English may well begin in the fifth or the

SARKAR, BEJOY KUMAR—*contd.*—SARKAR, GOPAL CHANDRA.

sixth class, and still the student may gain, with better advantage, as much knowledge of English in the matriculation class as at present.

(B) There should be a more intensive study of composition and a single text-book of selected readings. A book well read is much better than a dozen books carelessly read. The present system, which recommends a list of books for extensive study—the so-called "unseens"—may appear very nice on the surface; but, it seems to me, it has decreased the matriculate's knowledge of English as compared to those who read under the old regulations.

(C) English grammar should be read in the vernacular. It is a pity that the difficulties of learning a foreign language should be heightened by the very difficulty of the language in the works on grammar. The rules and technique of a foreign language may, with the greatest ease and advantage, be learned through one's own language. So far as I know this is done in all parts of the world. An Englishman learns French grammar through English, and not through French. So does a Frenchman learn English grammar through French, and not through English. This is also true about the study of the other foreign languages, German, Italian, Spanish, etc.

(*c*) In none, except partly in the subject of English.

I am at a loss to understand if there is any sense in conducting the examinations in Bengali and Sanskrit in English.

(iii) The changes recommended are:—

(A) *For Sanskrit.*—The vernacular medium should be made compulsory up to the M.A. examination.

Sanskrit and Bengali naturally go together, the former being the mother of the latter. It is quite unscientific and inconsistent that a Bengali youth should have to study Sanskrit through the medium of English. To be convinced of the ludicrousness of this novel system one has simply to look to the Sanskrit-English grammar prescribed for the matriculation examination at the present time. Even advanced students of Sanskrit can hardly understand what is meant in several parts of the book without spending an unduly long time on the subject.

(B) *For Bengali.*—The medium of Bengali should be made compulsory up to the highest examination.

(C) *For history and geography.*—The medium of the vernacular should be made compulsory up to the I.A.

(D) *For English.*—The English medium may be made compulsory after the matriculation.

(E) *For other subjects.*—The medium should be optional up to the highest standard—vernacular or English.

The medium of English has been a great handicap to progress in the existing university system. Unless, and until, the vernacular is recognised as the medium of instruction and examination we cannot expect real progress in Indian education.

SARKAR, GOPAL CHANDRA.

(i) My answer is in the negative.

(iii) The changes which I should like to propose are these:—

(A) Subjects such as mathematics, history, geography, and elementary science should be taught through the medium of the vernaculars up to the matriculation stage.

SARKAR, GOPAL CHANDRA—*contd.*—SARKAR, KALIPADA—SARMA, The Hon'ble Rao Bahadur B. N.—SASTRI, KOKILESWAR, Vidyaratna—SASTRI, Rai RAJENDRA CHANDRA, Bahadur.

(B) The prescribed course in English should be more comprenhensive than at present and a higher standard of proficiency should be demanded from candidates.

(C) Examinations in subjects other than English should be conducted through the medium of the vernaculars.

(D) Above the matriculation stage, for the intermediate examinations, subjects like history, geography, and mathematics; and for the degree examinations history, economics, and mental and moral sciences may be studied through the vernaculars. Examinations in these subjects should also be conducted through the medium of the vernaculars.

SARKAR, KALIPADA.

(i) No.

(iii) I would have a committee of specialists appointed by the University to prepare text-books in the vernacular in all necessary subjects, the aim being to teach those subjects in the vernacular. This will, of course, take time. A period of, say ten, years may be fixed after which this change may be effected. In the meantime, as many subjects should be done in the vernacular in the intermediate classes as possible, *i.e.*, for which text-books in the vernacular are already available. In the pre-university course everything except English should be done in the vernacular, which is quite possible immediately. English should be a compulsory subject both in the school and in the college.

SARMA, The Hon'ble Rao Bahadur B. N.

(i) For the present, yes; but there should be a steady attempt to create the requisite literature in the vernacular and, after a limited period, clear encouragement should be given to the teaching of the higher subjects through the medium of the vernacular.

(ii) (*a*) Enough to be able to understand the books on the subjects.
(*b*) I would deprecate the use of English as the medium of instruction in secondary schools.
(*d*) I would draw such a distinction.
(*e*) My answer to the first part covers this.
(*f*) Yes; the teaching should aim at an acquaintance with the highest thought and culture available. The student need not aim at proficiency and appreciation of the beauties or the elegant use of the language.

SASTRI, KOKILESWAR, Vidyaratna.

(i) and (iii) To lessen the existing gap between the university men and the other people of the country, the vernacular should be the medium of instruction and examination at every stage in the university and pre-university courses.

SASTRI, Rai RAJENDRA CHANDRA, Bahadur.

(i) Having regard to the poor knowledge of English of students entering the University it is very undesirable to use English as the medium of instruction at every stage above the matriculation. I should encourage the use of the vernaculars for the intermediate, B.A., and B.Sc. examinations, and leave the matter to the choice of the professors and pupils for the M.A. and M.Sc. examinations. As regards examinations I would insist upon answers being given in English in some of the

SASTRI, Rai RAJENDRA CHANDRA, Bahadur—*contd*—SATIAR, RADHIKA LAL—Scottish Churches College Senatus, Calcutta.

subjects—such as English, history, logic, philosophy, and science—and make the use of the vernaculars optional in the rest. The wholesale use of the vernaculars in answering university papers is open to serious objection as being calculated to lower the standard of English scholarship—already not a very high one—among our boys. Moreover, the vernaculars, not excluding even Bengali, which is the best developed among them, have not attained a stage of development sufficient for their use as the medium of examination in scientific and technical subjects.

(ii) (*b*) English cannot be used as the medium of instruction in secondary schools for students preparing for the matriculation examination. The instruction should be through the medium of the vernaculars, although the boys in the upper classes may be encouraged to converse and express their ideas in English; the extent to which this may be done will depend upon the staff employed, and the standard of instruction imparted in the schools concerned, and there cannot be any hard-and fast rule on the subject.

(*d*) Yes; but there are difficulties as to how they can be done.

(*e*) Already answered.

(*f*) Yes; up to the B.Sc. standard, and candidates taking up the B.Sc. course should be required to attend a course of lectures in English, although they may not be asked to pass any test in the subject. A certificate of proficiency from their professors may, however, be insisted upon.

SATIAR, RADHIKA LAL.

(i) English should, to my mind, be used as the medium of instruction and of examination at every stage above the matriculation in the university course.

(ii) (*a*) The command of English that matriculate students have on their entrance to the University although a little improved is not yet satisfactorily solid and substantial—quite wanting in thoroughness. At the matriculation examination, in addition to questions set for the purpose of testing the general knowledge of English, some question should be put to ascertain that students have thoroughly studied some standard text-book (to be selected by the University). Under the present system, a boy might pass the examination with the aid of the so-called "keys" now so much in vogue without properly studying the subject. The matriculation course should consist of some standard work to be thoroughly studied and some other books indicating the standard of knowledge of English to be attained.

(*b*) In secondary middle schools the medium of instruction should ordinarily be the vernacular, but the English language and grammar should also be taught so as to enable students, on their completion of the secondary course, to join the seventh year class of high English schools.

(*e*) The matriculation examination in all subjects should be conducted in English except the classics (Sanskrit, Persian, and the like), and the vernacular.

(*f*) Up to the B.A. and B.Sc. standards all boys should be taught English. Under the present system B.Sc. students lack, to some extent, the knowledge of English. In this connection, I beg leave to add that the intermediate examination may be dispensed with—a three-years' course after the matriculation would be enough for competing for the B.A. or B.Sc. degree.

Scottish Churches College Senatus, Calcutta.

(ii) (*b*) At this stage English should be used almost entirely as the medium of instruction. If satisfactory training in English has been given before this stage it is generally found that pupils do not suffer in the "content" of their knowledge by the introduction of English as the medium of instruction at an even earlier stage than the matriculation class.

Scottish Churches College Senatus, Calcutta—*contd.*—SEAL, Dr. BRAJENDRANATH.

(c) At present, the training in English is not satisfactory. English is taught in most cases as a dead language, little practice being given in the speaking of the language. The whole system, especially in the higher classes, is subordinated to the matriculation examination, in which, if a candidate obtains fairly good marks in formal grammar, he can scarcely fail to pass.

It is difficult without outlining a complete system to suggest improvements. The teaching of English is, at present, too formal, and little opportunity is given for using the language in a natural way. A certain amount of the time available for the teaching of English should be devoted to conversation.

(e) The candidate could be given the option of writing in the vernacular in certain subjects, but if he is at all fit to go forward to a college education his knowledge of English should be such that he should be able to express himself in simple English in any subject.

The most important factor in any system of education is the teacher, and no system, however perfect in itself, can be more than partially successful so long as the capacity, the training and the status of the teacher remain as they are. The knowledge of the pupil is just as faulty and incomplete when the vernacular is used as the medium of instruction as when English is used. The defects in the pupil's knowledge in any subject are due not so much to the medium of instruction, as to faulty representation and bad teaching.

SEAL, Dr. BRAJENDRANATH.

(i), and (iii) We must keep in view the different uses of English:—

(A) For study, *e.g.*, of English text-books.
(B) As a medium of instruction.
(C) As a medium of examination, written as well as oral.
(D) For conversation and correspondence.

Facile and correct English speaking may be encouraged by the holding of conversation classes in schools and colleges. A diploma for spoken English, and, if need be, for elocution, may be instituted. The elocutionary enthusiast must, however, bear in mind that tone and accent and other secondary (or tertiary) racial characters of speech are, to some extent, matters of climate, food, and conformation of vocal apparatus; and that a wide margin of variation must be wisely allowed. And the most perfect ape is still below the natural man!

English correspondence must be practised by all alike. Commercial classes will specialise in business correspondence.

(ii) (b) English text books should, as a rule, be used in studying all subjects (other than oriental languages—classical or vernacular) in all the stages of *higher* secondary and university education, though, whenever practicable, text-books written in the vernacular may be employed concurrently.

English as a medium of instruction should begin two years before the matriculation standard is reached. But, in certain subjects, *e.g.*, in history, as well as in elementary physics, chemistry, physiology, zoology, and botany, the instruction should continue to be in the vernacular in the entire school course, with free use of English technical terms and nomenclature. In the intermediate stage in logic, economics, and Indian history the instruction may be in the vernacular. The objection from jargon, or mixed (Anglo-Bengali) speech, and from the multiplicity of vernacular dialects, need not be taken seriously. Even the Oriya and the Assamese students understand, and often speak, the standard Bengali of cultivated speech and writing.

SEAL, Dr. BRAJENDRANATH—*contd.*—SEN, ATUL CHANDRA.

(*c*) An undue value is given in the matriculation scheme (and the preparatory schools) to translation into English from the candidate's vernacular. This is a trick that may be learnt mechanically. The 'direct' method is not practicable in any real sense, and the home and social conditions are adverse, being decidedly 'vernacular.' The European teacher in an Indian school will, therefore, have no chance. An officer may be deputed to study the methods of teaching English adopted in Russia, Germany, America, and, say, Egypt; he may give us useful hints, and can do no harm. But we need not wait for his report to introduce into our school classes English conversation, story-telling, narration, and oral description on the one hand, and to give greater value in exercises to the practice of original composition, on the other.

(*d*) I have already answered this under question 8. I would only add that for the literary courses (as distinguished from the applied science or technology courses, as well as from the I.Sc. and B.Sc. courses) the study of English literature should make a considerable use of comparative readings and comparative art criticisms. It is only through comparative views, for example, of eastern and western epics, of eastern and western dramas, of eastern and Western romances and novels, that Indians can rise to the conception of 'world-literature,' and of English literature, and of their own literatures as parts thereof; or can hope to obtain an insight—in a course of university (or higher secondary) education based on foreign models—into literature as the expression of life in representative forms and symbols, or, as Indian æsthetics would have it, as the imaginative transfiguration of life for the manifestation of the Rasas (emotional 'species' or 'forms') The Americans, as is natural, are developing a rudimentary sense of comparative literature as an element of humane culture, more especially the American women. For us, Indians, this is a vital need, both of our life and our art-construction; and with more Indian teachers of English literature the movement is bound to enter on a higher and fuller phase.

(*e*) Except in English the examination in all subjects in the matriculation curriculum should be conducted at the candidate's option in the candidate's vernacular. The same rule should apply to Indian history, logic, and economics at the intermediate examination when a sufficient number of proper text-books in the vernacular is available Similarly, for technological and professional subjects (other than law, medicine, and engineering) the option of examinations in the vernacular may be allowed to the candidate as soon as a sufficient number of suitable text-books is forthcoming.

To facilitate the use of the vernacular as a medium of instruction and examination in certain subjects, and at certain stages, it is desirable that authorised lists of Bengali technical terms and nomenclature should, from time to time, be prepared in consultation with the *Sahitya Parishads* in the country, and circulated to the schools and colleges.

SEN, ATUL CHANDRA.

(i) The question about the language to be selected as the medium of education in schools and colleges may be considered under three heads:—

Firstly, the language of instruction.
Secondly, the language of examination.
Thirdly, the language of text-books.

Now, with regard to the education in secondary schools there will perhaps be a concensus of opinion that all the subjects except English should be taught in the vernacular. The text-books should also be in the vernacular. It is needless to point out the reasons. It is well-known that the trouble which is experienced

by students in mastering the difficulties of the English language leave them but little time to think for themselves and obtain a thorough grasp of the subject matter. Hence, they are driven to commit to memory probable questions and answers, and that is an evil which has been condemend by all educationists. If the language difficulty is overcome students will be in a position to understand and express their ideas better than before. Teachers also will find it more convenient to explain things in the vernacular and text-books will come out in large numbers if the vernaculars are adopted as the medium of education.

The question of introducing vernaculars into the college classes is beset with greater difficulty. First of all there is a lack of suitable text-books in many subjects such as science, mathematics, philosophy, economics, etc., and the vernacular languages have not advanced so far as to be a suitable medium of expression in the subjects mentioned above. We may accept the principle of gradually replacing English by the vernaculars as the medium of instruction of examination but, for the present, English must be the vehicle for imparting education in the college classes.

SEN, BENOY KUMAR.

(i) I should like to settle first of all the general principle involved in this question. That a people should continue for ever to receive its higher education in a foreign tongue is certainly not a natural state of things. University education in all its stages shall have to be imparted in the language of the people who are to be educated. So that settles the final ideal, *i.e.*, ultimately Bengali must be the medium of instruction and examination at every stage.

(ii) Next comes the consideration whether the native language is so developed as to serve as a medium of instruction in all stages. In this connection, I hold that the Bengali language is sufficiently developed to serve as a medium of instruction in secondary schools up to the matriculation examination.

And, in order to hasten the arrival of the day when Bengali may be adopted as the medium of higher training in the University, I should like to suggest that in the colleges professors and students also should be given free option to use any language they choose—English or Bengali.

Further, I should like to suggest that in all examinations one question in every subject must be in the form of an essay in Bengali on any of the main topics of that subject.

(iii) (c) I am not at all satisfied with the kind of training now given in English in schools. I suggest the following improvement:—

The old entrance standard and the new matriculation standard should be combined, *i.e.*, in addition to papers on English translation, composition, and unseen passages two other papers should be added, namely, one on a fixed English text-book and another on English grammar. The changes brought about by the new regulations have the undesirable result of making the study of any English book unnecessary. Boys manage to pass by learning some tricks of translation and composition and further, a systematic study of English grammar has been thoroughly discouraged. The consequence is that boys are worse off in their command over English than were boys turned out by the old system. The remedy lies in again coming back to the older system, namely, teaching and examining boys in some prescribed text-book which boys have to read, and also in including a good text-book on English grammar which shall be taught in the upper forms of the school.

As it is suggested that Bengali should be the medium of instruction in schools greater effort must be concentrated on the adequate teaching of English in order to make up for the loss involved in the suggested change.

SEN, BENOY KUMAR—*contd.*—SEN, BIMALANANDA.

This brings us to one of the main difficulties of improving secondary education, namely, the question of funds. For, if we want to improve the teaching we must have a better class of teachers, and that means better pay for them. (An elementary course of English history may be included within the matriculation English course.)

(*d*) This distinction may, with profit, be drawn in the school course, but there is no room for it in the University, for it is supposed that while in school students shall have acquired a command over spoken English sufficient for all practical purposes.

In schools conversational classes in English may be started with profit, and the direct method of teaching English may be adopted in the lower classes. Teachers of English should have undergone a training in English pronunciation, idiom, and conversation under European teachers at the training colleges.

(*e*) My answer is in the negative.

(*f*) I think that English should be taught to all students up to the B.A. and B.Sc. courses. At present, it is not included in the B.Sc. course but, in order to minimise the bad effects of a narrow and specialised curriculum, English may be included, with profit, in the B.Sc. course, but the course need not be so heavy as in the B.A., and may include texts having some bearing on scientific subjects, together with one or two from general literature. This will also help to remove the stigma now sometimes attached to bachelors of science that they are, as a general rule, very weak in English.

SEN, BIMALANANDA.

(i) I hold that English should be used as the medium of instruction and of examination at every stage above the matriculation in the university course. This should go on for some years to come but, gradually, candidates for examinations may be given a choice of language, *i.e.*, they may be allowed to use either English or vernacular in their examinations in subjects like history, physics, chemistry, and other allied subjects, the English technical terms being used. I do not clearly see how it will be practicable to give instruction in these subjects in both these languages—European professors will not be expected to have a sufficient command of our vernacular—but, in my mind, progress in these subjects is a bit hampered by the students' defective knowledge in English.

ii) (*a*) I do not consider that university students in about 50 per cent of the cases have, on their entrance to the University, an adequate command of English. Much time and energy have to be spent in getting at the subject matter through the garb of the language in which the idea is clothed. In many cases students have to depend upon notebooks, and to cram answers to questions which they consider important—all this seems to me to be owing to their insufficient knowledge of English.

(*b*) In the top four classes of a school, besides the subject English, English should be the medium of instruction in mathematics. In history, geography, and such other subjects, if any, students should be given a choice of language in their examination, instruction in the class being given in the vernacular, or in English if the pupils seem to be sufficiently advanced in English. I think in this way much more time may be given to the study of *English* and that will, on the whole, produce better results. In the lower classes the vernaculars should be freely used, as is now done, except in the subject English.

(*c*) The kind of training at present given in English before entrance to the University is far from satisfactory in most of the schools of which I have experience.

The teaching of English should be entrusted to duly qualified trained teachers—the object being that boys should be made to speak English, to

understand English, and to express their ideas in correct, plain English. In the lower forms the teaching should be mainly oral—something like an English atmosphere is to be created in the class, and this cannot be done by a teacher who has not a sufficient command over familiar English, and who has to depend upon his book at every step. In the upper classes a wider range of reading, under the guidance of teachers, and more frequent exercises in oral and written composition, are necessary; but, to my mind, success in these matters depends chiefly upon the teacher. What generally happens is that the teaching in the lower classes in middle most English, and many high English, schools is entrusted to a matriculate who has somehow just managed to get his certificate, but has neither knowledge of his subject nor skill in teaching; and the result is deplorable. Thus, the groundwork becomes extremely bad. Some education is better than no education it is true; but I do not think an ill-educated man is better than an uneducated man either to himself or to his neighbours.

(*d*) I am decidedly of opinion that in schools a distinction should be drawn between practical training in the use of the English language and training in the study of English literature, and that more attention should be paid to the former than to the latter; in the college classes, too, a similar procedure is most likely to produce better results but, in this case, greater attention is to be paid to literature than to the other.

(*e*) The examination of English and mathematics must be conducted in English at the matriculation, but in other subjects candidates should be allowed a choice between English and their vernacular.

(*f*) It seems to be hampering to sound progress to teach English literature to students whose general course of study is mathematics or some science subject like physics, chemistry, botany, etc. But, until the teaching of English in secondary schools is improved, these students in the college classes should be given some training in modern prose so that they may better understand the special subject of their study, and may properly express, both orally and in writing, what they learn. But to teach English poetry or old English prose to these students does not seem to serve any useful purpose.

(iii) For the present, and for some years to come, English should be used as the medium of instruction and of examination at every stage in the university course above the matriculation, as mentioned above.

SEN, BIPINBEHARI.

(i) English should still be used as the medium of instruction and examination in all subjects except the classics, mathematics, and the vernaculars, from the matriculation to the highest degree examinations of the University. My reasons are as follows :—

(A) The rapid growth of Bengali literature is not entirely due to indigenous causes. It has been fostered by a careful and systematic study of English literature.

(B) The conditions of Indian education are different from those of other countries. The English language being the language of the State a good knowledge of that language will always be a sure passport to public service and distinction in life.

(C) The English language is the main channel of our intellectual communication with the West, as well as one of the bonds of union between India and England. To bring our students in touch with the latest intellectual movements in Europe I would further suggest the introduction of a continental language like French or German as an additional subject in the university courses of study.

SEN, BIPINBEHARI—*contd.*—SEN, PRAN HARI.

(D) As English is the most widely spoken language in the civilised world any reduction of the importance of its study would seriously affect the cause of high education in this province, in spite of the fact that it is learnt at an enormous sacrifice and disadvantage.

(E) Knowledge of English is the only medium of intellectual intercommunication among the various provinces and nationalities of India. A linguistic isolation of provinces from each other is not desirable even from academic considerations.

(F) India will still need the services of eminent European scholars for teaching some of the higher branches of knowledge; and it would be practically impossible for them to deliver their lectures in the vernacular so as to be intelligible to our students.

(G) The vernacular of Bengal, though the most advanced in India, is not yet so rich in its vocabulary, force and vigour as to be substituted for English as a medium of instruction in all departments of study.

(H) If English is neglected in the school stage by the teacher and the taught matriculates will enter the University with such an imperfect knowledge of the language that they will hardly be able to follow the lectures delivered in that language, especially when the lecturer happens to be a European.

The University has already given the vernacular sufficient encouragement by making it compulsory up to the B.A. standard. But the curriculum should be improved, and the examination in the subject should be made stiffer, so that students might be required to study the language and the literature in earnest. I further take the liberty to suggest that all prize essays, theses for Premchand Roychand scholarships, and doctorates may be required to be written in the vernacular. As there is more than one vernacular in this presidency there are practical difficulties in getting text-books for use in schools and colleges, as well as in examining candidates for higher examinations.

The matriculation examination in all subjects should be conducted in English except the classics, mathematics, and the vernacular. It is, therefore, necessary that English should be a medium of instruction in the first two classes in secondary schools, and more importance should be given to spoken English. Every secondary school should have a small library of the best works of modern English poets and prose writers, and should be required to subscribe for a few periodicals in English and in the vernacular to stimulate the intellectual curiosity of boys, as well as to improve their style. The quality of teaching cannot be improved by rules so much as by the character and attainments of the teacher.

Those students who would go in for a scientific course of study, or for commercial and technical education, need only have a knowledge of English sufficient to read books written in that language.

In teaching English in secondary schools the teacher must have a thorough knowledge of the vernacular of the province, and the work can be best done by the graduates of our University. Teaching in secondary schools should be entirely in the hands of qualified Indian graduates and under-graduates familiar with the social and intellectual conditions under which children in this province grow up; and they should have larger freedom in imparting instruction to their pupils on lines best calculated to stimulate that upright and manly independence of character—the essential condition of good citizenship and the best criterion of success in life.

SEN, PRAN HARI.

(i) The vernacular of the province, and not English, should be the medium of instruction from the matriculation up to the I.A. or I.Sc. stage in all the subjects of study except perhaps in English; but, even in teaching English the vernacular might profitably and advantageously, both to the teacher and the taught, be

SEN, PRAN HARI—*contd.*—SEN, RAJ MOHAN.

employed by the teacher to make himself and his subject or point clearly understood by pupils and *vice versâ*. This process, besides saving a great deal of time, trouble, unnecessary mental strain, and fumbling, would have the inestimable advantage of enabling the student to get a much clearer, surer, and firmer grasp of, and command over, the subjects than is possible under the existing conditions when English is employed as the medium of instruction. As regards examination all I should like to say is that at both the above stages option might very conveniently and advantageously be given to the examinees to give their answers either in English or in their own vernacular in all the subjects except English.

(ii) (*b*) English and the vernacular of the province, combined where necessary, but otherwise only the vernacular, should be used as the medium of instruction in secondary schools for all students, including those who are being prepared for the matriculation examination, in all the subjects, for the reasons set forth in (i), *supra*.

(*c*) Speaking for myself I am far from being satisfied with the kind of training now given in English before entrance to the University, and I would suggest that more stress be laid upon, and more importance attached to, training students in the art of speaking and writing English with ease and fluency than is at present done in secondary schools in Bengal, and that English be taught to boys more with a view to impart to them a moderately decent working knowledge of the English language than with a view to make them well-grounded or well-versed in English literature, with a high literary finish. For this purpose, nothing would perhaps be better than to give them a practical course of training at school in writing and speaking English; slowly, and by degrees, encouraging and leading them on by suitable hints and suggestions given in a kind, sympathetic and loving manner, eschewing rebuke, censure, or severe looks.

(*d*) Yes: I would draw this distinction both in the school and at the University that our first and foremost aim should be to give our boys and young men practical training in the use of the English language, and then, time and opportunity permitting, we should also be very glad to see them trained in the study of English literature.

(*f*) Yes; English should be taught to all students during their university course, with this difference, that the standard, in the case of those students whose general course of study may be other than linguistic, should be much lower, and English should be taught to them more with a view to enabling them to express their ideas in plain and simple English with tolerable facility and fluency, than with a view to making them well-versed in English literature.

SEN, RAJ MOHAN.

(i) It seems to me to be an unnatural arrangement to educate the young men of a country through the medium of a foreign tongue. It cannot but create artificial difficulties, and cause much waste of time and energy. So I am decidedly of opinion that it should be our aim to make the vernaculars of the province the general medium of instruction and of examination in the schools, as well as in the University. It is true that there are difficulties at present in Bengal in the way of introducing the change here advocated; but the difficulties should not remain for ever, and we should gradually try to overcome them. The chief difficulty is the want of books on the various subjects of study. But, if the principle be publicly accepted, and declared to come into force after a certain number of years, I think the necessary books will not be wanting very long. On the other hand, the tie which binds together England and India makes it imperatively necessary for Indians, at least those of the upper classes, to learn English. So English should be a compulsory second language both in secondary schools and in the University.

SEN, RAJ MOHAN—*contd.*—SEN, Dr. S. K.—SEN, Rai SATIS CHANDRA, Bahadur—SEN, SATISH CHANDRA.

The object aimed at in the school should be to give students a thorough practical command of the use of the English language in speaking and writing. To ensure this, along with written examinations there ought to be, if possible, also oral examinations conducted preferably by Englishmen or Indians educated in England. Again, as England and India ought to understand each other, and as it is not possible to understand a nation without the study of its literature, so English literature should be a compulsory subject of study in the University. Those students whose course of study is not linguistic may have a shorter course than others.

SEN, Dr. S. K.

(i) Yes.

(ii) (*a*) Yes.
(*b*) Fully and wholly.
(*c*) No; training by English teachers, especially in the lower classes.
(*d*) Yes.
(*e*) Yes.
(*f*) Yes; in science and medicine I.A. or F.A. is quite enough.

SEN, Rai SATIS CHANDRA, Bahadur.

(i) Yes.

(ii) (*a*) With the majority of students the command of English is adequate but, generally, students find great difficulty in following English professors in the colleges.
(*c*) No; selected text-books ought to be prescribed, as used to be the case under the old regulations, though students ought to be encouraged in their study of other standard books outside the curriculum.
(*e*) No.
(*f*) I think the existing arrangement is proper.

SEN, SATISH CHANDRA.

(i) I hold that English should be chiefly used as the medium of instruction at every stage above the matriculation.

(ii) (*a*) University students, on their entrance to the University, have not generally perhaps an adequate command of English, but may follow a lecture if abstruse points in the subject matter are explained with the help of, and with illustrations from, the vernacular. The subject should be so explained as to be easily understood by students.
(*b*) In secondary schools for matriculation students English should be used as the medium for English. For other subjects the vernacular may be freely used, but care should be taken that pupils may express themselves in English (by the translational method) by the ideas they have gained. Even in teaching English recourse should be had to the vernacular in explaining things clearly; this will be rather helpful to pupils in expressing themselves in English fairly accurately.
(*c*) The training now given in English is not satisfactory. I am in favour of text-books in English being used, but there is no objection to a test being held also of the general knowledge of pupils in English. A systematic teaching of English grammar seems necessary; exercises should be frequently given and carefully corrected. For this purpose, additional tutors should be employed in schools. These are perhaps matters relating to methods, which, however

improved, will not produce the desired result unless, and until, the machinery is improved. Our secondary schools are not generally staffed with first-rate men, nor with an adequate number of them. We begin to teach our boys English in the lowest classes of secondary high schools, but this teaching is relegated almost universally to very ill-paid teachers; consequently, they are not possessed of a high order of attainment. The University draws its students from secondary schools and, if the ground is not well prepared, the seeds sown will not bear fruit. The first and most important step towards the improvement of the University is to improve secondary high schools, which involves the improvement of the pay, prospects, and status of their teachers. Secondary schools will thus become more efficient.

(*d*) I would draw a distinction between a training in the use of the English language and a training in the study of English literature.

(*e*) Except in classics and the vernacular the matriculation examination in all subjects may be held in English provided importance is not attached to the quality of the English in subjects like geography, science, etc.

(*f*) English should be taught to all students up to the first degree examination on the general side. Those who take up the B.Sc. course, for instance, should be required to take up English also; but the examination in English may be confined to one paper comprising questions on selections from standard authors, including Shakespeare, and one general paper.

SEN, SURENDRANATH.

(i) When we approach the question of the medium of instruction and examination we are confronted with the solution of a knotty problem. Our difficulties at present are twofold. We have not got the necessary text-books in the vernacular, and the knowledge of European languages is essentially necessary for a thorough acquaintance with, and an intelligent appreciation of, western thoughts and ideas. At the same time, we cannot close our eyes to the fact that, under the present system, young students are required to spend too much time and energy for mastering the technical niceties of a foreign tongue. This may be quite necessary for training a set of English-knowing officials but, from a purely educational point of view, this is not only needless, but positively harmful. Moreover, the knowledge of English alone can no longer be regarded as sufficient for educational purposes. If we want our students (as we should) to keep abreast with the intellectual progress in the West we shall have to ask them to learn at least two continental languages (French and German) in addition to English. But, as the simultaneous study of three foreign languages will mean a very great strain on young students if a very high standard is insisted upon, I should like to propose that they should be asked only to learn just so much of each of the three languages as will enable them to understand books written in English, French, and German. The present high standard of English should, therefore, be lowered, though text-books should be freely selected from all the more advanced languages of Europe. English and other European languages may, therefore, be used as media of instruction at every stage above the matriculation, but students should always have the option of using their vernacular at the time of examination throughout their university course.

(ii) (*b*) As for their pre-university course English, French and German should be made compulsory from the lowest classes.

SEN, SURYA KUMAR.

English should be used as the medium of instruction and of examination at every stage above the matriculation in the university course.

SEN, SURYA KUMAR—*contd.*—SEN GUPTA, HEMCHANDRA—SEN GUPTA, Dr. NARES CHANDRA.

(ii) (*a*) A large proportion of boys have not an adequate command of English on their entrance to the University. This is due to the absence of text-books in English. Under the existing system boys care little for what is done in the class; nor do they care to study the books recommended by the University. Most of them ordinarily study the help-books published by experienced teachers and professors.

(*b*) English should be the medium of instruction in the first four classes of secondary schools.

(*c*) The direct method of teaching should be largely introduced.

(*d*) I do not like to draw a distinction between practical training in the use of the English language and training in the study of English literature.

(*e*) The matriculation examination in all subjects should not be conducted in English. Candidates may be allowed to answer questions on second languages in their own vernaculars.

(*f*) English should be taught to all students during their university course. But a degree of leniency should be shown to those students whose general course of study may be other than linguistic.

SEN GUPTA, HEMCHANDRA.

(i) English should *not* be used as the medium of instruction and of examination at every stage above the matriculation.

(iii) In the intermediate stage instruction and examination in every subject except English literature should be through the medium of the vernacular. In the degree examinations also this system may be gradually extended. Instruction and examination in a subject like Sanskrit should always be through the medium of the vernacular. At present the average boy is in great difficulty on account of the medium being a difficult foreign language. The technical words in scientific subjects might be English.

In secondary schools English should be used as the medium of instruction only in English literature.

Although the kind of training now given in English before entrance to the University is unsatisfactory there is no remedy for it. The only way to get out of the difficulty is to give the vernacular its proper place.

The matriculation examination in all subjects except English should be conducted in the vernacular.

English literature should be a compulsory subject up to the intermediate stage.

SEN GUPTA, Dr. NARES CHANDRA.

(i) No; I think there ought to be no hard-and-fast rule. Teachers should have the option of using English or the vernacular as they find convenient. But I think that for some time yet instruction will be given in the higher branches of all subjects in English.

(ii) (*a*) My experience is that, though many have not adequate powers of expression, cases of students who cannot follow lectures in English are extremely rare.

(*b*) Most teachers in secondary schools do, as a matter of fact, use the vernacular as the medium of instruction. This, I think, makes instruction more effective, and should be the general rule. For the knowledge of English, however, which is by all means necessary, students should be encouraged to read books on subjects such as history, written in English, though not as a necessary part of the curriculum.

(*c*) No; the direct method of teaching, plenty of translation and composition exercise, and wide reading of English books should be the main part of the teaching.

SEN GUPTA, Dr. NARES CHANDRA—*contd.*—SEN GUPTA, SURENDRA MOHAN—Serampore College, Serampore.

Interpretation of select pieces of literature, which forms now the exclusive mode of instruction in most schools, should be reduced to a minimum. My experience is that English is better learnt by extensive reading of a large number of books without a too close attention to the interpretation of particular passages than otherwise.

Too much time is wasted in teaching grammar to boys. Books on grammar should be abolished in the lower forms, and grammar may be taught mainly in connection with texts and composition exercises. In the higher forms a complete English grammar should be gone through, say in two years.

(*d*) Yes; training in the study of English literature, as such, should commence with the matriculation, and should not be compulsory in the intermediate and B.A. courses.

(*e*) No; it ought to be open to candidates to answer questions in the vernacular.

(*f*) Yes; I should have translation and composition and a wide reading of English books, newspapers, and periodicals—especially on the particular subjects studied.

SEN GUPTA, SURENDRA MOHAN.

(i) English should not be used as the medium of instruction and of examination at every stage above the matriculation. On the contrary, I think the vernacular should be used as the medium of instruction and of examination. English as the compulsory language should be studied with better care, and more text-books should be studied in that language than at present. The present system is defective inasmuch as students cram English written by note-makers for the essay, as well as for translation, instead of committing to memory standard English text-books. Training should be in the study of English literature, as well as practical training in the use of the English language in the university stage. Practical training in the use of the English language should be a compulsory subject even in the scientific course.

Serampore College, Serampore

(i) Yes; we are unanimous in thinking that English should be the medium of instruction and examination at every stage above the matriculation. One of our Bengali colleagues in answering the question in the affirmative says :—

"A drastic change at this stage will give an unnecessary twist to the course of development both of the language and of the University.

The adoption of Bengali as the sole medium of instruction in the University will prevent a free exchange of services between the different provinces in the matter of supplying expert help. It will also arrest the free movement of students from one province to another and help to perpetuate the boundary lines of caste and race.

It will handicap the European element in the University in its work of usefulness in the expansion of higher education in Bengal."

(ii) (*a*) In the great majority of cases, no; but a considerable number from the outset can intelligently grasp the essentials of a lecture in English provided the lecturer takes sufficient care to be clear in his enunciation. Those who are backward manage, under proper direction, to make good headway during their intermediate course so that by the time they are ready to take their B.A. course these initial difficulties practically disappear. What it really amounts to is that the colleges in the first two years of their course are really doing the work that ought to be done in the schools. So long as the great majority of schools are what they are this is a very necessary work, but it is

Serampore College, Serampore—*contd.*

a state of things that has no parallel in the higher education of other lands. Of course, it must be recognised that the using of a foreign language as the medium of instruction in all collegiate work has no parallel in other countries. If the work now done in the lower classes of the colleges is to be handed over to the upper classes in schools there must be a very radical improvement in the staff and equipment of recognised schools, otherwise the last state of things will be worse than the first.

(*b*) and (*c*) Almost all members of our staff are of opinion that it is desirable to give a fair trial to the vernacular as the medium of instruction in all subjects except English, in secondary schools up to the matriculation standard, but only on the distinct condition that better arrangements of a radical character are made for improving the teaching of English as a subject. From the lowest to the highest classes only a fully qualified staff for English teaching should be employed. At present, great harm is done by assigning the teaching of English in the lowest classes to teachers who themselves do not know the language. A Bengali colleague with large experience of school work writes :—

"Only competent men should be allowed to teach English. If better salaries are given a better class of men can be easily found. Before a teacher is allowed to teach English he should be examined thoroughly by a board composed of Englishmen. Let him write an essay and hold a long conversation in English on what books he has studied, and the burning questions of the day. There should be some test of his knowledge of English literature, as distinguished from that of the English language, and he should have some knowledge of the modern methods of teaching".

Another Bengali colleague, who himself thinks that English should remain the medium of instruction in high schools in all subjects except history and Sanskrit, writes as follows :—

"No one should be allowed to teach English in a recognised school who has not received a special licence or diploma from a competent authority. A feeble effort was made in this direction in the days of Mr. A. Pedlar, Director of Public Instruction, as far back as 1902 or thereabouts. But his policy was not followed with vigour and earnestness. If Government moved in the matter, and opened in each district and sub-divisional headquarters a training school, with one or two well-qualified English ladies with Indian experience on the staff, a good start might be made in the direct, or more improved, method of teaching English with a limited number of young pupils and a small proportion of pupil teachers specially selected from each high school in the sub-division. The text books to be used should contain graduated lessons bearing on topics of Indian domestic life ; and means should be found to encourage the production of suitable literature for young people so as to secure that the process of learning English words and expressions shall be along the lines of ordinary everyday experience. In future, each high school in the province should be compelled to have on its staff a minimum number of such teachers as have passed out of English training schools. Boys in the upper classes of high schools should be made familiar with the best type of juvenile literature produced in Great Britain. Young people will find it comparatively easy to pick up a working knowledge of English from English fairy tales, folk-lore, tales of modern school life, and magazines of the *Boys' Own Paper* kind. Selections from standard authors may be sparingly used as the learners advance in their course."

(*d*) Yes ; only those who offer English in the B.A. honours course, and who have had a thorough preparatory training, should give themselves mainly to the study of English literature. So far as others are concerned there should be far more ample scope than at present exists for practical training in the

Serampore College, Serampore—*contd.*—SHARP, The Hon'ble Mr. H.

use of the English language through conversation and a study and use of good ordinary English prose. A Bengali colleague writing on this subject says :—

"It would be a clear advantage to both teachers and students to draw the line somewhere in the first three classes of what are called high English schools ; and extend it right up to the B.A. classes in colleges. Except for those who intend to make English literature their special study, passing through a compulsory course in English literature is sheer waste of time."

This attitude perhaps is somewhat extreme, but there can be no doubt that our present method lacks due proportion and balance. Many students are now giving themselves almost exclusively to a study of literature when they ought to be employed mainly in obtaining a more thorough mastery of the language.

(*e*) No ; only in answering the English paper.

(*f*) In this country we consider that science students should be required to do some amount of English in addition to their regular scientific studies in the same way as the London University students are required to study French or German, or both. The English of the science course should be one specially adapted for the purpose. It may be worthy of consideration whether honours and M.Sc. students should not be also required to obtain a knowledge of scientific French or German.

SHARP, The Hon'ble Mr. H.

(i) English should be the medium of instruction and of examination at every stage above the matriculation, and very largely at the matriculation itself.

(ii) (*a*) Judging from the unanimous opinion expressed by professors from whom I have enquired, and from what I have seen of students who have just reached, or recently passed, the matriculation stage, I should say that the knowledge of English possessed by students in Bengal on their entrance to the university course is generally inadequate.

(*b*) The use (or attempted use) of English as the medium of instruction begins too early. This is due to the facts that the tendency in Bengal is to begin English at a very early stage before the pupil has attained an adequate knowledge of his vernacular, that the classes which are designated "high" comprise the last four classes, and (I am informed in some quarters) that teachers like to practise their English in class. The instruction should be imparted in the vernacular (or mainly so), and the books used should be vernacular up to a higher stage than at present. The introduction of English as the medium should be gradual, *e.g.*, English as a language might be begun about the third or fourth stage of instruction, the medium remaining the vernacular save where the direct method is used and, even then, only in lessons in English. At about the sixth stage arithmetic might be worked in English figures. At the sixth English technical terms would be introduced in mathematics. At the seventh stage instruction in mathematics would be conducted, so far as possible, in English, and a history book in English would be read, covering the same period as that read in the sixth, and couched in language which approximated to a translation of the book used in the sixth ; but the explanation in class would remain mainly vernacular. In the eighth stage history teaching would be conducted in English, so far as possible, and an English geography book would be used in the same way as was the history book in the seventh standard. In the ninth stage geography would be taught in English. In the tenth stage instruction would be carried on mainly in English save in the vernacular and classical language lessons. I have not mentioned science because the treatment will depend on the stage at which it is begun. If it

SHARP, The Hon'ble Mr. H.—*contd.*

begins early, the same method of gradual change might be adopted as with history and geography; if late, commencement might be made with an English science book, the explanation being at first in the vernacular and then in English.

(*c*) The school training in English is defective. The question of improvement is really that of staff qualifications, training, and permanence in the profession. If the teacher is capable, and has seriously studied the science and art of teaching, the method he employs is of secondary importance. For the lower classes the direct method is valuable, and I have seen it applied with excellent effect in some parts of India. But the exclusive use of this method is probably feasible only in very small classes; nor do I at all believe in the banishment of translation and retranslation—indeed, I set great store on them. A few text-books should be set for examination; but there should also be questions bearing on general reading and unseen passages. Less time should be spent on formal grammar. This should be possible if a boy has learnt his grammar, syntax, and analysis properly in the vernacular, and if full use of this knowledge is made in teaching him the same things in English. For, potentially, he already knows them, save of course for the numerous exceptions and idioms which inflict themselves upon the student of English and must be acquired partly by rote, partly by sheer practice. Some attention should be paid to phonetics, and every teacher should know its elements; at present many boys are quite unintelligible in pronouncing English. Much more accuracy should be required is speaking and in written work. I have heard teachers deliver lessons in slovenly and ungrammatical English, and have seen so-called corrected exercises where every kind of blunder went unmarked. Finally, in order that greater care in written work and more personal attention to a spoken English may be possible, the size of classes should be reduced. Classes of 50 are too large. Reduction is necessary not merely for English teaching, but also for other kinds of instruction.

(*d*) It is most important to draw a distinction between practical training in English as a language and the study of English literature. The latter phrase is often wrongly applied in schools to the reading of a simple book. Such reading is, of course, essential both as part of the practical training and as opening to the pupil the possibility of making some study of English literature at college or at home if he so desires. But the teaching of English at school should mainly be the study of English as a language, though not to the exclusion of books in modern English which would be classed as literature, *i.e.*, the best books. The study of literature is something quite different, embracing as it does the reading of books which are not written in the language of to-day, and an investigation of the growth of thought and expression in the country concerned. The study of English literature in this sense cannot easily find a place in the Indian high school. Even in colleges I would not make it compulsory. The reading of good English books (not necessarily all of them modern books) should be insisted upon in the case of all college students during some period of their career whether their main study be history, philosophy, oriental classics, mathematics, or science. But they should be read as a language, and as a vehicle of Occidental ideas, not primarily as literature. The study of English literature may be confined to those students who adopt it as a main study.

(*e*) The matriculation examination should be conducted mainly, but not exclusively, in English. Papers in the oriental classics and vernaculars may be set and answered in vernacular, those in other subjects in English. But there might be exceptions. An examination in Sanskrit or Bengali might very usefully contain a translation and a retranslation paper into, and from, English. A question paper on history might contain a couple of questions the replies to which might be given in English or vernacular at the option of the candidate or, better still, one general paper to be answered in vernacular

might be set on different subjects of the course, with a view to giving opportunity to a boy who knew his subjects, but whose aptitude for expression in a foreign tongue was limited.

(*f*) I have already said that the reading of good English books should be insisted upon in the case of all college students during some period of their career whatever their main subject of study. This, along with some practical instruction in English, should enable the student to acquire a sufficient knowledge for the requirements of life, give him some insight into western modes of thought, and, possibly, implant in him a taste for reading which will one day carry him still further. It is probably unnecessary that this instruction be continued throughout the whole course.

Reference may be made to what I have said under the special subject of courses.

SHASTRI, Dr. PRABHU DUTT.

(i) I hold that English should be used as the medium of instruction and of examination at every stage above the matriculation in the university course except in the case of Sanskrit, Arabic, and Persian.

(ii) (*a*) University students have an inadequate command over English when they enter the University after passing the matriculation.

(*b*) The vernacular should be the medium of instruction in the primary department and the first three years in the secondary department of schools. The teaching of English (by the direct method) should begin in the secondary department and should continue for three years. English should be employed as the medium of instruction (in all subjects except History, Sanskrit, Arabic, and Persian) during the last two years of the secondary course.

(*c*) I am not satisfied with the kind of training now given in English before entrance to the University. The subject is generally taught in a purely mechanical way by means of texts, translation, and retranslation. I would, therefore, suggest the following:—

(A) No text-book should be used during the first year's course of the secondary department; instruction should proceed on the direct conversational method—Gouin's method, with some modifications, could advantageously be adopted.

(B) Easy and graduated text-books might be used for the following two years, but instruction should still proceed on the conversational method. Translation should be sparingly used.

(C) In the high department more difficult texts should be introduced, and instruction in all subjects (except oriental classics, vernaculars, and history) should proceed through English. Conversational classes and debating societies should be organised.

(D) The teaching of English should never be in the hands of an untrained teacher.

(E) Special attention should be paid to correct pronunciation and correct modulation in reading.

(F) Except in the high department grammar should be taught orally along with the text or the conversational lesson, and not through any separate book on grammar

(*d*) Yes; the distinction is necessary and useful. Practical training in the use of the English language should, as far as practicable, be given by Englishmen, while Indians should be entrusted with training in the study of English literature. English literature need not be taught at all in schools nor in the I. A. standards. More attention should be paid to the teaching of the English language with the object of enabling students to express their thoughts neatly. Literature should be optional in the college course.

SHASTRI, Dr. PRABHU DUTT—*contd.*—SHETH, Pandit HARGOVIND DAS T.—SHORE, Rev. T. E. T.—SINGH, PRAKAS CHANDRA.

(*e*) The matriculation examination should be conducted in English in all subjects except history, vernacular, and oriental classics.

(*f*) English should be taught to all students during their university course. Those students who specialise in science may undergo practical training in the use of the English language only.

SHETH, Pandit HARGOVIND DAS T.

(ii) (*a*) I hold that the medium of instruction and examination should be the vernacular of the province in which the candidate is educated except in cases where candidates have the English language as their mother tongue.

(*b*) Students who are being prepared for the matriculation examination may be taught English as their second language.

(*c*) The matriculation examination should be conducted in the vernacular of the province and in English as a second language only.

SHORE, Rev. T. E. T.

(i) Yes; though I am inclined to make an exception in the case of Sanskrit, a language with which Bengali is very closely allied. Sanskrit grammar, as treated by Panini and his subsequent commentators, is a very complete and exact system and differs *in toto* from the systems of grammar, Latin and Greek and their derivatives, with which the British school boy is familiar. To teach Bengali students Sanskrit on a westernised system of grammar replacing the terms used by the Indian grammarians by others derived from Latin and Greek, seems somewhat futile.

(ii) (*a*) I am emphatically of opinion that, with the rarest exceptions, the knowledge of English possessed by students who have passed the matriculation is entirely inadequate.

(*c*) The training in English given in the schools is most unsatisfactory. English grammars of quite unnecessary elaborateness and complexity are put into the hands of boys, even in the lower classes, and committed to memory by them, and grammar is not taught as arising out of the passages occurring in their text books.

(*d*) I should certainly wish to see this distinction drawn.

(*f*) I think that if the English language were taught with sufficient thoroughness in the period before matriculation it might be dispensed with in some of the post-matriculation courses. As things are now it should form part of the studies of every student at least up to the I.A. examination.

SINGH, PRAKAS CHANDRA.

(i) There can be little doubt that instruction imparted to one through the medium of one's mother tongue is more impressive than if it is done through a foreign language. I taught one boy logic in the vernacular (Bengali) and another in English. I noticed that while the one tried to grasp the idea the other was more attentive to the words used. The one learnt and the other got by heart. It is a great disadvantage for an Indian student that he has to learn a foreign and difficult language through the medium of which he has practically to get all his learning. He has often to break his teeth in biting through the shell before he can reach the kernel.

But yet, for various reasons, I would not at present recommend the introduction of the vernacular as a medium of instruction for college classes. While we have

SINGH, PRAKAS CHANDRA—*contd.*

to learn English we should learn it well and, for this purpose, as well as for want of well written books in Bengali on higher subjects, I would retain English as a medium of instruction and of examination at every stage above the matriculation in the university course. When, however, we have good books on philosophical subjects in Bengali it may be possible to use Bengali as a medium of instruction and examination for those subjects.

(ii) (*a*) I think university students have, on their entrance to the University, an adequate command of English. The difficulty which they sometimes experience in following lectures is often due to the difficulty of the subject, and the defective way of exposition, rather than to the difficulty of language. When this happens the use of the vernaculars will be found helpful, but this will require a knowledge of the vernacular on the part of the professor.

(*b*) For those students who are being prepared for the matriculation examination I would teach them geography, history of India, mathematics, and hygiene in the vernacular, the history of England in English, and, of course, also a course in English literature.

(*c*) I am not satisfied with the kind of training now given in English. I have for a long time been in touch with high schools, either as president or a member of the governing bodies. I have noticed that boys handle more books, and get less knowledge, than they used to do before.

I would begin in the lower classes with teaching English by conversation alone, and then I would place in the hands of the student a book containing simple lessons, using a fair selection of words that are necessary for the expression of ideas in the ordinary business of life. When the boy has learned this book I would give him in the next higher class another book containing an additional number of words for the expression of additional ideas and proceed on in this way step by step and in a progressive and easy way till the boy has reached class IX. I would teach him only so much of English grammar as is necessary to enable him to write and talk English correctly. I would not overload him with abstruse grammatical rules, etc., which he might be required to know should his aim be to be a master of English literature. I have said that I would teach him mathematics, Indian history, geography, etc., in the vernacular; when he has learnt them well I would require him to translate his lessons in them into English. This will have the double advantage of enhancing his power of expression, as well as of increasing his stock of words for the expression of ideas he has learnt in those subjects.

At present, it seems to me text-books are prescribed without any definite object in view. A student reads one book partly in one class and, then, when he goes up to the next higher class he is required to read another. No stock is taken as to what the book just left has taught, and what the book just taken up will teach. No calculation is made as to whether the boy's stock of words is increasing or is stationary.

The principle that should be followed is that in selecting text-books care should be taken that the student goes on acquiring a new and additional stock of words and their use as he proceeds up from class to class.

(*d*) I would draw a distinction in the school and University between practical training in the use of the English language and training in the study of English literature.

(*e*) The matriculation examination should be conducted in English only in those subjects that are taught in English.

(*f*) I do not think that English should be a subject for all students after the intermediate examination. After this examination those whose general course of study would be scientific need not be required to study English as an independent subject.

SINHA, ANANDAKRISHNA.

(i) I do not think that English should be the medium of instruction and examination at every stage above the matriculation in the university course. I shall deal with the topic from two standpoints :—

(A) In dealing with the present question as regards secondary schools we ought to remember two important purposes which English education serves. It is by means of English that the knowledge of the West with its vast science and literature, is gained ; and, secondly, as subjects of the British Empire we must learn English for our own material prosperity. Now, in both cases, a working knowledge of English is required, such as will enable us to interpret and understand the master-minds of Europe and to secure the material prosperity of British India. A mastery of the English tongue is not required by the average student. But the system of training now given in English in the secondary school aims at this. Too much time and energy are spent in learning the technique of language, boys are made to sweat in getting by heart the long list of appropriate prepositions, the use of articles, and colloquial phrases. Grammar is the only thing cared for in these schools. But if, instead of following this tedious task of getting the entire grammar by heart, boys are taught so much grammar only as would enable them to understand easy English books, the time thus spent on grammar could be better utilised in reading books and getting a working knowledge of English. Thus, out of the eight years' course in a secondary school if, in the third and fourth year, the necessary portions of grammar be taught, leaving the next four years with literature, great progress could be made in English, and we will not find a matriculation candidate so deficient in expression as we find now. An alert reading of a few standard English books will give us more of the spirit and syntax of English language than four years' laborious application to the study of grammatical rules. Further, the medium of instruction should always be Bengali. So long as we cannot think out our thoughts in our own vernacular we cannot be said to have mastered it. We cannot always shine in borrowed feathers. So long as we shall not be able to assimilate and digest what we have read, so long as we shall not be able to drive out from the plastic minds of young students that English is not the Alpha and Omega of education, we cannot hope that western education will be successful in interpreting and rationalising its true object.

(B) *As to colleges.*—In colleges, *i.e.*, in the stage above the matriculation, teachers should be given an option of adopting any medium—English or Bengali—he likes. Certain subjects there are where the pure Bengali medium would be a little difficult, and here the teacher should be left to his own discretion. If he finds it advantageous to lecture in Bengali, as Principal Trivedi of the Ripon College does, let him do it; but if it is not so easy let him take recourse to English. The present practice of lecturing in English only is pernicious to the extreme and ought to be abolished. If it is argued that Bengali has not reached that stage of perfection which is required for a medium of instruction, the fact is a misrepresentation. But, granting for the sake of argument it is so, how would it be possible to bring it to perfection unless it is forcibly taken and improved that way ? A man who argues that Bengali should not be adopted as a medium so long as it is not perfect argues like the man who would never go to the water before he learns to swim. The present system of instructing and conducting examination in English has a far-reaching effect. Besides stunting the national language and literature it is gradually creating a wide gulf between the mass and the educated class. This conducting and controlling of education on a foreign model, this ignoring of the Indian spirit and cult, is dwarfing the national thoughts and aspirations and is forcing upon the plastic mind of youth a sense of their own inferiority,

To me it is desirable that English should be taught in all the college classes, but attention should be paid to the fact that it is not an end in itself, but only a means to some higher end. Its value lies there. Secondly, the students in the intermediate and B.A. classes should be given an option of answering their papers (examination) in any way they like—either in English or Bengali. Subjects like history, philosophy, logic, and mathematics could be easily answered in Bengali Only the final examination—M.A.—should be generally conducted in English. But, even here, Bengali may be adopted if found suitable and convenient.

SINHA, Kumar MANINDRA CHANDRA.

(i) Yes.

(ii) (*a*) No; I do not think students entering the University have that knowledge of English.

(*b*) To every extent the vernaculars should only be employed in primary institutions and in primary departments of schools.

(*c*) No; I am not satisfied. Better trained teachers in English, especially in English pronunciation, should be engaged. Anglo-Indian teachers could be engaged to this end if suitable terms were given them.

(*d*) Yes; there is always a marked difference between the two.

(*e*) Yes; except for the vernacular subjects, where the vernacular is necessary.

(*f*) All the subjects should be taught in English.

SINHA, PANCHANAN.

(i) The answer is in the affirmative; but the vernacular should be allowed to supplement English as the medium of *instruction.*

(ii) (*a*) The general body of students do not have an adequate command of English on their entrance to the University.

(*b*) English, supplemented by the vernacular more freely than in colleges, should be the medium of instruction at least in the highest two classes of secondary schools.

(*c*) The answer is in the negative; I would suggest a thorough grounding of students in their vernacular in the lowest forms, and equipment of schools with a better class of more highly paid teachers as the only remedies to this crying evil.

(*d*) The distinction should be drawn.

(*e*) The answer is in the affirmative, except for the vernacular.

(*f*) The answer is in the affirmative; for such students I would recommend practical training in the use of the English language.

SINHA, UPENDRA NARAYAN.

(i) Yes.

(*a*) No; the knowledge of English in the matriculation course requires a good deal of improvement.

(*b*) English should be the medium of instruction in teaching English and mathematics in the first two classes of the school, and for the rest the medium should be the vernacular.

There should be one prescribed text-book and some recommended books. Greater attention should be paid to composition and grammar.

(*d*) Practical training in the use of English may be imparted up to the intermediate standard. But a moderate training in the study of literature may be

provided for those studying for the B.A. degree. There may be more of specialisation for those who take up the honours course in English. Those who come out of the University with the B. A. degree should have that acquaintance with English literature which will enable them to appreciate the beauties of literature independently and to exercise their critical judgment in matters of style.

(*e*) Certainly not; only examination in English and mathematics should be conducted in English.

(*f*) Yes; except in the B.Sc. examination.

SIRCAR, ANUKUL CHANDRA.

(iii) Up to the intermediate course students should be given full option to adopt either English or Bengali as the medium of learning in all subjects (except English). In the higher courses the medium of instruction should be English; but English, as a subject, should not be compulsory.

SIRCAR, The Hon'ble Sir NILRATAN.

(i) Yes; for the present; though, gradually, the vernacular may be substituted as the medium of instruction in history, logic, and economics in the I.A. and the B.A. examinations.

(ii) (*a*) Yes; the command of English of university students, on their entrance to the University, is fairly sufficient for the purpose of following instruction and lectures in English.

(*b*) In secondary schools English should be a compulsory subject, and taught through the medium of the English language. As a medium of instruction for the other subjects the vernacular should have the preference.

(*c*) A more practical knowledge of English is a necessity.

(*d*) Yes.

(*e*) No; not in geography, history, the classical languages, and the vernacular.

(*f*) Yes; English should be taught to all students, but those who do not take a linguistic course should acquire only a practical knowledge of English.

SLATER, Dr. GILBERT.

In the Madras Presidency there can be no possible doubt that the medium of university instruction must be English. This is rendered imperative by the multiplicity of vernaculars and the insufficient development of any local vernacular, including even Tamil, for the conveyance of advanced instruction. Already the people in the presidency who do any thinking in history, science, philosophy, politics; economics, etc., habitually think in English, and not in the vernacular. University students habitually talk English, and correspond in English with one another very frequently, even when their vernacular happens to be the same.

The impossibility of using any language other than English as the medium of university instruction also applies to Bombay; and is recognised by the founders of the new University of Mysore. I have no means of knowing whether Bengali can replace English in the University of Calcutta; but if Southern India uses English as its medium, and Bengal a local vernacular, the University of Calcutta will be in an intellectual backwater while the universities of Southern India will be in the full stream of the world's intellectual activity. Such a position does not seem to be either desirable or possible. On the other hand, it is very obvious that there are great drawbacks to the use of an acquired language as the medium of instruction. Until the university student has learnt to think in English he makes little progress. The remedy appears to be the improvement in the teaching

of English in the schools, and the development of non-university education, agricultural and industrial, given through the medium of the vernaculars, necessarily at first only in elementary form, but gradually advancing with the probably increasing demands of students, and the fitting of the vernaculars, by the adoption of new words and otherwise, for the conveyance of clear and precise ideas on the subjects of instruction.

For Madras I should answer the detailed questions proposed as follows:—

(i) Yes.

(ii) (*a*) Yes.

(*b*) As much as possible, and as early as possible.

(*c*) No; I would suggest the following changes:—

(A) Better pay and status for teachers.

(B) For the L.T. examination candidates should be allowed to take "Methods and Practice of Teaching English" as a special subject.

(C) Attention should be paid in training teachers to securing that they have a thorough understanding of the differences between the structure of English and the local vernaculars.

(*d*) Yes; the training in the use of the English language should be enforced on all; English literature should be an optional subject.

(*e*) Yes; and success or failure in the examination should mainly depend upon power to express ideas in intelligible English.

(*f*) No; as soon as the student has proved his ability to learn through the medium of English, oral, written, and printed, and his ability to express his thoughts in English, he should be allowed to discontinue if his general course of study is not linguistic.

SMITH, W. OWSTON.

(i) I fear that there is no alternative. There is no vernacular in most parts of North India which can, without abuse of language, be called a mother tongue, and which already has a sufficient stock of words familiar to all to express the ideas of economics or physics. Bengali is copious and flexible and has the power of coining Sanskritic compounds to any extent, but they are less familiar than the corresponding English words. In fact, educated Bengalis are very hard put to it if they have to say a few sentences in their 'own language' on any political, scientific, or academic subject without making use of English.

(ii) (*a*) They have not.

(*c*) Of course not; who is? Improvements here, as elsewhere, will be useless unless we get some capable men and then let them teach.

(*d*) Yes; I think the practical training is really more necessary.

SORABJI, Miss L.

(i) I do think that English should be used as the medium of instruction and of examination at every stage above the matriculation in the university course. Apart from other reasons one potent objection to employing the vernacular as the sole medium of instruction would be that you limit the work and influence to the vernacular possibilities of the province. I mean that you are hampered in your choice of the best possible material on your teaching staff by the minor consideration of language; furthermore, you limit the pupil to the thought current in that vernacular, and this may prove most dangerous, politically and morally.

(ii) (*a*) and (*c*) Students now entering colleges seem to have a very inadequate knowledge of English—the fault lies with the teaching of English in secondary

SORABJI, Miss L.—*contd.*

schools. English should be taught on the direct method, from the infant class upwards, by teachers whose language it is. That the people want their children taught English has been proved even in the villages by the popularity of middle English, over middle vernacular, schools. Why should they not learn it in the natural way, by learning to speak it from their entrance into school? The experiment might be tried in Government high schools and then extended to middle English schools as teachers become available. I should like to emphasise the fact that the teaching of English should be in the hands of those who really can speak it fluently; too often it is mere book work; even Bengali graduates are unable to frame questions or correct answers of pupils except from the actual words in the book. In girls' high schools there might be English mistresses to undertake the entire teaching of English; their lack of knowledge of the vernacular need be no barrier at first, indeed, it might prove an advantage for pupils would be obliged to speak in English during the English hour; and if English is begun in the kindergarten, pupils will have the advantage of being able to enjoy all the beautiful children's books that make child life so happy for English children, and much of the drudgery of school work would disappear. If the final goal is to be through the medium of English then let English be made easy by introducing it at the beginning of school life; it need not hinder the thorough teaching of the vernacular. In continental countries children learn two or more languages side by side with the greatest ease. Sanskrit might be eliminated from the compulsory subjects, and taken as an optional subject by those who have a distinct gift for languages.

The difficulty of obtaining teachers of English might be overcome by employing Anglo-Indians. It would not be possible to get teachers from England, but the local European schools ought to be a recruiting-ground for teachers of English who might have very special training in the secondary training colleges already existing. I find that Indian children do not catch the undesirable accent of the Eurasian or domiciled English, and the better class of the latter are becoming more careful about their speech. I speak from thirty years of experience as an educationist among women and girls of every class and race in India. Much more use can be made of the domiciled classes if adequate salaries and good prospects are offered.

I would suggest that the teaching of the major vernaculars of a province be made compulsory in all Government aided European schools, that it should be begun in the kindergarten and be taught on the direct method, say up to standard VI. Private schools would find it difficult to provide extra teachers for this, and might be unwilling to introduce a vernacular as a compulsory subject. I think, therefore, that Government should provide the teachers. Would not this help to bridge the gulf between the domiciled English and the Indians, the children of both communities learning each other's language, and all be more fitted for useful service to the country in the future?

(*b*) If the university teaching is to be through the medium of English the sooner the classes begin taking such subjects as English history, geography, or science in English the better, but this will depend very much upon the teachers; even graduate mistresses, I find, are hampered in their teaching by having to use English.

(*d*) I think that practical training in the use of the English language should be the work of the school leading up to the study of English literature.

(*e*) The matriculation examination ought to be conducted in all subjects in English; if this is properly taught in schools all difficulties will disappear.

Could something be done to stop the publishing of "keys" on English text-books and cram books of various kinds, of essay books written in the most atrocious English? The province is deluged with these books, which are bought by day pupils over whom the authorities cannot exercise any control out of school; the essay books not only abound in linguistic and grammatical mistakes, but spread harmful ideas.

SÜDMERSEN, F. W.

(i) If English is adequately and carefully taught in schools there should be no difficulty in students in colleges being taught through the medium of English. There are many examples where this has been done in other countries. As one, Wales may be taken. And there is no very marked difficulty on the continent. English boys do as a fact go to schools in France and Switzerland and after six months are able to follow the course of instruction in a French school, the preliminary handicap being soon reduced. The trouble in India is that parents who know English well will not use it in their homes —the teachers are usually ill-taught themselves—the time in the school is too often wasted with mechanical exercises, and the boy depends for any success upon his hard cramming at home. Although instruction is supposed to be through the medium of English in the top four classes of a high school whatever instruction that is given, excepting of course the mechanical reading of text-books, is really in the vernacular.

But there is a very fundamental objection to the attempt to impart instruction in a college through the vernacular. It is seriously contended that, in addition to the pesent difficulty of securing men in India to teach in our colleges, we are to impose further restrictions, and that our choice is to be limited to men who speak a particular vernacular. In such a case we may well postpone indefinitely any hope of securing university teaching except in certain areas where a moderate supply might be forthcoming. And are we to force an alien 'vernacular' upon large areas of India, where the vernacular has scarcely reached even a written stage?

There are many other objections, but the above seem to be sufficiently complete.

(ii) (*a*) Most decidedly no.

(*b*) The present arrangement by which English is taught as a second language for four years, and as a medium of instruction for the last four years of a school course, appears the best.

(*c*) The boys read very little English. They should be made to read a large number of very simple English books during the two years immediately preceding the matriculation. Familiarity with words and phrases, readiness to converse, all these depending mainly upon the teacher, and not being very susceptible to examination, are of course fundamental.

(*d*) The present requirement of English literature for all arts graduates and for all intermediate students should be done away. English literature, as distinct from language, should be an optional. A practical working knowledge of the language should, however, be required from all. School students should not study literature as such, but they should be compelled to read a good deal of good English literature.

(*e*) An option might be given, as at present, in history and a few other subjects.

(*f*) English should, in the present condition of education, form a compulsory course for all students up to the degree standard. Practical knowledge should be tested by requiring, in addition to essays, given substances of passages, etc., the power to write précis or abstracts of, say, twenty pages of a book or of an elaborate correspondence. Conversation should, if possible, be introduced as an element of examination.

SUHRAWARDY, HASSAN.

(i) Yes.

(ii) (*a*) Not necessarily.

(*b*) Instruction through the medium of English should be started as early as possible in all stages in secondary schools.

SUHRAWARDY, HASSAN—*contd.*—SUHRAWARDY, Z. R. ZAHID—TARKABHUSHANA, Mahamahopadhyaya PRAMATHANATH.

(*c*) No; English should be taught by the direct method, and started as early as possible.

(*d*) English composition and conversation forming part of the practical training in the use of the English language should receive greater importance than the study of books of literature.

(*e*) Yes.

(*f*) Yes; they should not learn philology and history of English literature, but should know enough to be familiar with the intellect of the English language.

SUHRAWARDY, Z. R. ZAHID.

(i) Yes.

(ii) (*a*) No.

(*b*) English should be introduced as a medium from the lowest standard. The present system of starting English as a medium in the higher classes in secondary schools is objectionable.

(*c*) No; greater attention should be paid to composition; conversation in English should be introduced in the curriculum, and an examination held in it.

(*d*) Yes.

(*e*) Yes.

(*f*) Yes; in the case of students whose course of studies is other than linguistic, classical literature, philosophy, etc., may be avoided.

TARKABHUSHANA, Mahamahopadhyaya PRAMATHANATH.

(i) A large volume of public opinion in the province is in favour of making the vernacular (Bengali) the first language in the university curriculum. The proposal has the strong support of the Bengal Literary Academy. The strongest argument urged by the supporters of the proposed change is that the effort spent in acquiring the power of expression in a foreign medium considerably interferes with the growth of thought. In other civilised countries the native language is the medium of instruction as well as examination. The knowledge of English literature is, no doubt, a highly desirable attainment for it is the "open sesame" to a very large portion of the world's literature. But, to the great majority of the university's products this knowledge proves an expensive luxury. Men cannot think soundly, nor feel deeply, so long as they have to do either apart from their mother tongue. For these reasons, I think the vernacular ought to be allowed to take the place of English, as far as practicable, both in teaching and in examination, although English is to remain the compulsory second language.

(iii) The changes that would be necessary to this end are sketched below:—

(A) Texts and recommended books in non-literary subjects. The University ought to make a close survey of the vernacular literature in the various departments and give preference to suitable works as far as they exist. Works showing an attempt to think out the problems pertaining to the arts and sciences—although the standpoint or the method is more original than academic—should be recommended. The paucity of text-books is not an insuperable obstacle. Supply being regulated by demand everywhere the gifted alumni of the University would take to clothing their thoughts in their subjects in the vernacular as soon as the demand is created for such products.

(B) As an initial measure lecturers in first and second-grade colleges should be given the option of making use of the vernacular wherever they deem it convenient, practicable, and profitable to students.

(C) Similar option ought to be given to examinees up to the B.A. pass stage. As to higher examinations and studies English is to remain the compulsory medium, and optional in literary subjects other than English itself. For it

TARKABHUSHANA, Mahamahopadhyaya PRANATHANATH—*contd.*—THOMSON, Dr. DAVID.

is on all hands admitted that higher studies in this country would be promoted largely by acquaintance with the recent developments and researches in Europe and elsewhere in the civilised world—access to which is conveniently supplied by English.

(D) The study of the vernacular ought to be more serious and systematic than at present. The practice of prescribing books in the vernacular on the sole recommendation of their furnishing models of style ought to be discontinued. For, as a matter of fact, Bengali literature is rich in the solid thoughts of earnest and diligent seekers of truth, and not merely in the achievements of adventurous stylists. The study of styles, except for the critic of literature, is barren! For style, as is so often repeated, is the man, and cannot be the product of imitation, however close. Let students learn facts and principles through as many channels as they can, and the need of expression will shape the style. It is further suggested that, as far as possible, books should be chosen which would supplement the knowledge gained by the study of the other subjects of the curriculum, *e.g.*, those which would give an insight into the *Puranas*, social customs, natural resources, philosophical schools, and religious systems of this country.

(E) A course of studies in the vernacular ought to be formulated up to the M.A. degree, comprising the history of Bengali literature, knowledge of the *Prakrits*, philology of the Bengali tongue (materials for which are at present accumulating, though scattered), and some knowledge of Sanskrit. Standard works on the history of Bengali literature and philology of the Bengali tongue are shy to come forward for lack of encouragement and remuneration.

THOMSON, Dr. DAVID.

(i) Excluding Eastern language subjects like Sanskrit, Pali, etc., there seems to be no subject in the curriculum in which the available literature is not predominantly English or readily accessible in English. Hence, apart from such exceptions, English is, of necessity, and must, I fear, remain, the medium of instruction and examination at every stage above the matriculation in the University course. At the same time, one must recognise that instruction through the medium of any foreign language can never fructify so fully as instruction through the mother tongue. Where the conditions permit, that is to say, in the case of vernacular subjects taught to an audience racially homogeneous, I see nothing but advantage in adopting the mother tongue as the medium of instruction and examination at every stage both above and below, the matriculation standard.

(ii) (*a*) University students in Assam at least have, on their entrance to college generally speaking, a very inadequate command of English. Weakness in English is a potent cause of failure and of a good deal of the cramming that goes on, especially during the first-two years of college life. I found it necessary to dictate notes to the first-year chemistry class, spelling out all the more difficult words. In very many cases the language difficulty persists throughout the college course. I found that it also influenced the choice of subjects. Students conscious of weakness in English took a science, in preference to an arts, course just to get rid of formal instruction in English at the end of their second year.

(*b*) Vernacular subjects are best taught through the vernacular. In other subjects a combination of English and vernacular should be used with increasing emphasis on English as the matriculation class (class X) is approached.

(*c*) In all high schools in the Surmá Valley Division of Assam English is now taught from class III upwards by the "direct method", with very good results. An endeavour is being made to root out the old translation method —which teaches English as a dead language—from all schools in this valley.

THOMSON, Dr. DAVID—*contd.*—TURNER, F. C.

(*d*) In school a distinction between practical training in the use of the English language and training in the study of English literature should emphatically be made. In school the emphasis should be on the *use* of the English language, and this emphasis should be so great that there should be no necessity for special practical training in the use of the English language at college. For the present, however, this is a counsel of perfection. The necessity for special practical training in the use of the English language among college students does exist now, and seems likely to exist for some years to come.

(*e*) The matriculation examination in vernacular subjects should be conducted in the vernacular. In other subjects in which English is solely or predominantly the medium of instruction the matriculation examination should be conducted in English.

(*f*) In the future, when we have high schools doing real secondary school work and teaching English up to the present I.A., and I.Sc. standards, then it may be possible to offer University courses of study leading to degrees in which formal instruction in English has no part. Till then, the present system which makes English a compulsory subject for the first two years of college life is the only possible one. Up to the standard required for the I.A. and I. Sc. I see no necessity for differentiation in the teaching of students whose general course of study is non-linguistic and those following a linguistic course.

TURNER, F. C.

(i) I consider that a university in which at any stage any subject is taught through a medium other than English is at present an impossibility. The poverty in technical terms of the Indian vernaculars, and the absence of text-books in the vernaculars, appear to me insuperable barriers to the abandonment of English as a medium.

(ii) (*a*) I consider that at most 20 per cent of students have, on their entrance to the University, an adequate command of English.

(*b*) It is difficult to form a definite opinion on this point, but I am inclined to be sceptical as to the amount of English acquired by pupils in schools by studying subjects other than English through the medium of English, and I am doubtful whether the benefit to their English is not more than balanced by the loss to their other subjects.

(*c*) I am anything but satisfied with the kind of training now given in English before entrance to the University. The main, and it might almost be said the only, defect is the lack of knowledge of the English language on the part of almost all teachers. An improvement can, however, be made even with the existing teachers if more time is spent on translation and composition, and less on English texts than at present, and if the teachers can be induced to treat the texts always as unseens, and not attempt to provide their pupils with exact paraphrases and complete notes; no passage should be explained by the teacher to the class until the class has made a considerable effort to explain it to the teacher.

(*d*) No attempt should be made to teach English literature until after the intermediate stage, and then only to honours students. There should be no poetry set either for the matriculation or for the intermediate examination. To introduce students either to poetry or to archaic forms of English before they have a sound knowledge of current prose is, I am convinced, at the bottom of all our difficulties in teaching English.

(*e*) It follows from my answer to (*b*), above, that I am inclined to permit students to give their answers in all subjects except English in the vernacular.

(*f*) See my answer under (*d*), above.

VACHASPATI, SITI KANTHA—VICTORIA, Sister MARY.

VACHASPATI, SITI KANTHA.

(i) The command of a foreign language like English is a great impediment in the way of the student's obtaining higher education, and that is one of the main reasons why, even after the lapse of so many years, Western civilisation is confined to such a limited class and has not spread amongst the people as it should be expected, with the result that the great mass of the people as yet belong to the old-order school and are ignorant of the scientific methods and improvements in all departments of life. I would venture to suggest, therefore, that after the class preparatory to the matriculation two courses should be left open to students for the attainment of higher education :—

(A) Through the medium of English.
(B) Through the medium of the vernacular.

Thus, the matriculation, I.A., I.Sc., B.A., B.Sc., M.A., and M.Sc. examinations should be conducted both through the medium of English, as well as the vernacular, and students should be permitted to follow optionally either of the two courses provided that, if a student passes the matriculation examination through the medium of the vernacular, he will not be allowed to take up the English course (but not *vice versâ*).

(ii) (*a*) The student's knowledge of English is sufficient for the purposes of grasping the subjects of University examinations.

(*b*) Up to the fourth class the vernacular ought to be the medium of instruction, and English in the higher classes.

(*c*) The direct method of teaching English may be introduced in the lower classes. Undue importance should not be given to translation which is, after all, a mechanical aid to the acquirement of a language. Conversation in English should be encouraged, and English should be taught as a literature.

(*d*) Yes.

(*e*) For my proposed 'English course' yes.

(*f*) For the 'English course' yes; English should be made a compulsory subject up to the B.A. standard, as at present, it is.

VICTORIA, Sister MARY.

(i) English should be the medium of instruction and of examination at every stage above the matriculation in the University course.

(ii) (*a*) University students have not, in most cases, an adequate command of English.

(*b*) English should be used as a medium of instruction in secondary schools for four years previous to the matriculation examination. It should never be used as a medium of instruction below twelve years of age unless the vernacular of the pupil were English.

(*c*) We are not satisfied with the training in English given in the schools.

English throughout secondary schools should be taught by specially qualified teachers and, where possible, English teachers. It would be well to have a special examination conducted by the Education Department for any teacher who wished to teach English. Such examination should be principally *viva voce*, and should guarantee that the master could speak fluently and easily, read intelligently, accentuate correctly. These examinations should be conducted by Englishmen.

(*d*) Special practical training in the use of the English language, as well as teaching in English literature, is necessary in schools but, in the college, this practical training in the use of English should not be necessary.

VICTORIA, Sister MARY—*contd.*—VIDYABHUSAN, RAJENDRANATH, and VIDYABHUSANA Mahamahopadhyaya Dr. SATIS CHANDRA—VREDENBURG, E. (in consultation with COTTER G. DEP.),—WAHEED, Shams-ul-Ulama ABU NASR.

(*e*) Most emphatically the papers in the English and science sections should be entirely in English, the Indian history might be in either language, the vernacular papers should be entirely in the vernacular, the classical papers should be set through the medium of English.

(*f*) English should be a compulsory subject up to the B.A. for all students.

In the case of students whose general course of study is other than linguistic the English course should be less intensive, and more extensive, than the present syllabus; it might include a period of English literature and a general knowledge of a fairly large number of set books.

The questions set should be wide, and should show a general knowledge of the course.

The English taught as a language should include a much fuller course, and it should necessitate a more scholarly knowledge than at present. Original criticism should be encouraged.

VIDYABHUSAN, RAJENDRANATH, and VIDYABHUSANA, Mahamahopadhyaya Dr. SATIS CHANDRA.

(i) Yes; but the standard of vernacular studies in all stages should be raised, and the vernacular should be made a subject for the M.A. examination.

(ii) (*a*) The student's knowledge of English is sufficient for the purpose of studying the subjects required of University examinations; he, however, cannot be expected to be a master of the English language at this stage.

(*b*) Up to the fourth class the vernacular should be the medium of instruction, and English in the higher classes.

(*c*) The direct method of teaching English may be introduced into the classes above the fourth; undue stress should not be laid upon translation, which is, at best, a mechanical aid to the acquirement of a language; English should be taught as a literature, and not simply from the practical point of view.

(*d*) Yes; though the two are interdependent.

(*e*) Examination in history, geography, and elementary science may be conducted in the vernacular, and in other subjects in English.

(*f*) Yes; practical training in the use of the English language.

VREDENBURG, E. (in consultation with COTTER, G. DEP.)

(i) I certainly hold the view that English should be the medium of instruction and of examination at every stage above the matriculation in the University course. My reason for this view is not dictated by sentiment, but only by the practical consideration that the study of science is already overburdened by the multiplicity of languages in which information is to be sought. Every available means should be employed to avoid adding to, if not actually to reduce, the existing confusion.

(ii) (*a*) and (*c*) As regards the matriculation and all previous stages of instruction I would leave considerable latitude as to the medium of instruction, and I believe that primary education is, in many instances, more suitable in the vernaculars.

WAHEED, Shams-ul-Ulama ABU NASR.

(i) English should be used as the medium of instruction and of examination in every stage above the matriculation in the University course for the following reasons:—

(A) If the medium be not English it would be necessarily Bengali, with a few exceptions. Now, Bengali, by genius and its vocabulary, is too poor to

express high thoughts and ideas unless it is a sort of Sanskritised Bengali, permeated with Sanskritic words, saturated with Sanskritic ideas, and interwoven with Sanskritic structure and Hindu myths, almost out of recognition, and with all the rigidity and stiffness of a dead language. Such Bengali is far from being the vernacular of the presidency, not to speak of Muhammadans who, in East Bengal particularly, use a sort of language commonly known as the " Mussalmani Bengali ", which consists of a large number of words of Arabic, Persian, and Urdu origin. No Hindu, especially of West Bengal, will understand the Mussalman *Puthis* and religious books written in this language. Besides, in East Bengal, including Sylhet, there is a veritable babel of tongues, though a form of Bengali is commonly used. A man of Dacca or Comilla, not to speak of West Bengal, can hardly understand the language used by a man of Chittagong or Noakhali or Sylhet, each with a different tongue.

(B) If such Bengali is adopted as the medium of instruction Muhammadan students, especially of East Bengal, will be the greatest sufferers. They will be faced with the problem of learning and expressing their ideas in another language, which is a sort of Sanskrit, as stated above, with Persian or Arabic as their second language, while the Hindu boys, with Sanskrit as their second languages, will have plain sailing. Multiplicity of languages which have already interfered, to a certain extent, with their progress will now heavily weight them in their race with their Hindu brethren. If most of them are forced to give up Arabic or Persian in favour of Sanskrit as their second language this will be regarded by Muhammadans as the great menace to their national traditions, and will constitute for them a source of discouragement from English education. In this connection, I may be permitted to quote Sir William Hunter, who wrote, even in the case of schools, in rather strong language, thus :—" The language of our Government schools in Lower Bengal is Hindu, and the masters are Hindus. The Muhammadans, with one consent, spurned the instruction of idolators through the medium of idolatory.....the astute Hindu has covered the country with schools adapted to the wants of his own community, but wholly unsuited to the Muhammadans ". It may be noted that, as a result of this and other causes, the " astute " Muhammadans of Lower Bengal have now covered the country with *madrassahs* (senior and junior), and *maktabs* adapted to what he esteems to be the wants of his own community. According to the conclusions arrived at by Lord Northbrook, on receipt of reports on Muhammadan education from Local Governments and Administrations, " the Muhammadans are not so much averse to the subjects which the English Government has decided to teach, as to the modes or machinery through which instruction is offered ". I am, therefore, strongly of opinion that if Bengali is made the medium of instruction and examination the progress of Muhammadans in English education will be greatly retarded and receive a serious check.

(C) Again, if Bengali is made the medium of instruction in the University course, and English does not play a prominent part, the educated people of Bengal will be weak in communication with other intellectual centres in and outside India. This will narrow the basis of education, intellectual outlook, and borders of knowledge, and will prevent free intellectual interchange. English is in the process of becoming the *lingua franca* of intellectual India, and it would be a bad day for her if this process is to receive a set-back.

(ii) (*a*) At present, University students generally have not, on their entrance to the University, a sufficient command of English.

(*b*) English should be the medium of instruction, as far as possible, from the lowest of the upper four classes of secondary schools and should be extensively used in the upper two classes.

(*c*) No; education in English in the lower classes should be combined, as far as possible, with the direct method of teaching and in the upper four classes all subjects should be taught through the medium of English.

(*d*) Yes; but both the methods should be followed side by side.

WAHEED, Shams-ul-Ulama ABU NASR—*contd.*—WATHEN, G. A.—WATKINS, Rev. Dr. C. H.—WEEB, The Hon'ble Mr. C. M.

(*e*) Yes.
(*f*) Yes; but students whose general course of study is other than linguistic must not be allowed an honours course in English.

WATHEN, G. A.

(i) In the Punjab our language problem is peculiar. There is no vernacular that all agree to use. Therefore, the only alternative is to use English as the medium of instruction and examination.

(ii) (*a*) I consider that University students on their entrance to the University have an inadequate command of English.
(*b*) Yet I would not use English as a medium of instruction in secondary schools for all subjects for teachers have not themselves a free command, and the use of it tends to indescribable cramming which is usually fatal to all intelligence and originality. If we had at least one really good master in every school we might get English better. The reason for the low standard is that teachers teach and speak a language of which they are seldom masters.
(*d*) I would distinguish between the use of the English language and a study of English literature, emphasising the former; but, in learning English, a schoolboy might, incidentally, read English books that could be classed as literature. In the higher classes of the University I would definitely make English literature a separate subject.

WATKINS, Rev. Dr. C. H.

(i) Yes; except in Sanskrit, Persian, and the vernaculars.
(ii) (*a*) It varies greatly. With some it is very poor.
(*b*) and (*c*) In those subjects (for the higher classes at least) in which it will be the medium in the University.
(*d*) In my judgment, the practical training is the main thing, and it is for that branch that I consider myself to be here. I do not think it possible without this to understand the literature, or to see in what way it is "literature" at all.
(*e*) Except in Sanskrit, Persian, and the vernaculars.
(*f*) Yes; decidedly, and right up to the intermediate it should be both a compulsory, and a main, subject. Afterwards it might be sufficient, except for those who specialise in it, to retain it as the medium of instruction.

What I think much more important is that, if practicable, at least one Englishman should be on the staff for English in every affiliated college. The faults of Bengal English are largely in the nature of misguided convictions. The average student has no idea of the English accentuation of words. English metaphors puzzle them as they never could if they constantly heard idiomatic English, and their most trusted note-purveyors write (and print!) such perversions as "the butt-*end*" (instead of the "butt") of ridicule. Punctuation is as it happens to come, and some Bengali editors of English texts will issue a list of "Errata" which specifies fewer of them for the whole book than there actually are on many of their single pages (I include printers' errors).

WEBB, The Hon'ble Mr. C. M.

(i) **In Burma, for many years, English must be the medium of instruction and of examination at every stage above the matriculation in the University course.**

WEBB, The Hon'ble Mr. C. M —*contd.*—WEST, M. P.

Vernacular education tails off rapidly as soon as the stage of primary education is passed. There is a comparatively small demand for vernacular middle and high school education. There would be but few pupils prepared to take a vernacular university course, no vernacular text-books for such a course, and few or no teachers capable of conducting such a course.

(ii) (*a*) No ; many University students do not have an adequate command of English. It is necessary to make a choice between two alternatives, teaching in English and in Burmese, both of which have disadvantages. I think, with more adequate and thorough training in English in the middle and high standards, a purely English university course is preferable.

(*b*) As a working knowledge of English is essential in Burma for university studies I consider English should be the medium of instruction in all subjects for students preparing for matriculation from standard V.

(*c*) I prefer the high school final examination to a special university matriculation examination. I would not necessarily conduct every part of the high school final in English.

WEST, M. P.

(i) At present the boys of high English schools who go into the University do not know English well enough to follow the University course in that language, nor do they know the vernacular with any accuracy. They are languageless. It appears to me that it matters very little which language is finally decided upon, but it is necessary that it should be one language. If from the very first the boy is taught English, and the mother tongue is definitely relegated to a merely spoken language like the *sahibs'* Hindustani, then by eighteen any boy should be able to follow an English university course, and listen to lectures in English. He will not know Bengali accurately. It will be merely a spoken language like the mother tongue of Indians educated at schools in England. This is one alternative. The other alternative is to make English the mere second language, in this case not so much a colloquial language as one for reading, like the scientist's German. Lectures will be in Bengali, examinations will be answered in Bengali, a Bengali necessarily admixed with English echnical terms. Such Bengali is common at the present day. So is such English in England on any topic when the chief authorities are all written in French or German. (Lewis' *Education of the Far East* states that in the Japanese science courses a vernacular dictionary of technical terms is used.)

In this case, English as a colloquial language is doomed to disappearance. It may remain the language of official conversation, as was French in the eighteenth century. The ordinary educational product will know almost as much English as a public school boy knows French, save that he will be able to read it better. But he will not have been educated in English, nor could he follow a university course in that language.

Personally, I am in favour of this alternative. Looking to the future I do not see how any country can develope a system of knowledge written and spoken entirely in a foreign language. Nor can a country at this stage of its history change its language. Looking to the educational aspect I consider that the loss of time and effort deducted from the acquisition of real knowledge for the sake of the learning is not worth it. If geography and history were taught in Bengali boys might know some. Nor can composition and essay writing be taught as an art in an imperfectly acquired foreign language.

Moreover, how much English is learned from the language of the class-rooms :— "Cloud condensed হইলে rain হয়ে যাবে।"

It is evident that, more and more, in the future, the staff of education will be Indian. In so far as English men are needed I consider that it is cheaper to pay an English-

WEST, M. P.—*contd.*

man his salary for two years while he learns the language of the country than to pay for a whole educational system for two years while the pupils learn oral English. There is no reason why an Englishman should not lecture in Bengali as understandable as the English of a foreign professor. The missionaries give two years' language teaching to their new recruits, and they do their propaganda in Bengali—and they know more of the country and its ways than the whole education service put together.

I would add a short note as to the causes which account for the weakness in English of the matriculate since it throws light on the problem whether, if the language of education were Bengali, English could still be taught to any useful degree in the more limited time alloted to it.

The ordinary method followed in teaching English is as follows :—

The boy is set a certain passage of the English reader to "prepare". Preparation means that he must be able to read the passage, translate it into Bengali, and, occasionally, give English synonyms. The preparation is done with the help of an "aid" or an elder brother. But the teacher sometimes goes through a new passage giving the Bengali equivalents. These are noted in the text-books. The preparation is usually very easy for during two-thirds of the year the boy is revising. The school calculates to get through most of the passages fixed for the term in the first half of the term. The rest of the time is spent in repeated revisions. The third term is all revision.

In the class-room the teacher calls on a boy to read. The boy goes on reading for a long time. There is no rapid change of reader so as to keep the class awake. The teacher very often stands opposite the boy reading and pays little attention to the rest of the class. He never interrupts with a question. When the reading is finished the teacher calls on the same boy usually (sometimes the better teachers ask another boy) to "expound" the passage. He does it as follows :—

Jack য্যাক। climbed উঠিয়াছিল। up উপরে। the bean-stalk শীষগাছ। When the whole passage has thus been expounded the teacher asks some questions. "Parse Jack"; spell "bean-stalk"; "climbed?"

The answer to the question "climbed" is "c-l-i-m-b-e-d উঠিয়াছিল। ascended."

Translation from Bengali into English is taught only once or twice a week. A passage of Bengali is dictated in class and boys have to bring an English version next morning. The passage is short and difficult. Sometimes it is "gone through" in class. In any case, the translation is laboured out word by word with a dictionary or a brother, and it is all in writing. This is practically all the writing of English that a boy has to do.

The result is that :—

(A) Boys can read English into Bengali, but they cannot read Bengali into English. They cannot translate at sight the simplest fairy tale into correct spoken English.

(B) They cannot understand spoken English (for half the lesson is in Bengali).

(C) They cannot write fluent English any more than a public schoolboy can write fluent Latin. They can only compose "proses".

The direct method is a complete failure in Bengal schools. It asks too much of the teacher; it is useless for the upper classes, where complicated ideas or abstract words are needed. But, if only English were taught from Bengali into English, instead of as at present from English into Bengali, the matriculate pupil could be fifty per cent better in half the time. (It is to be noticed that all the text-books are in English, usually containing no Bengali at all, at most very little.)

The matriculation papers encourage this system of teaching. The papers consist of a passage to be translated into English, several passages English into Bengali a grammar paper. The last is a very pernicious paper asking paraphrases parsing, "give the adjective of". It causes, in the schools, an immense ex-

penditure of time by boys, whose English is equivalent to fifth-form Latin, in learning the feminine of "dog" and the "collective" of "patridge". Teachers know that other methods are better than they are using, but they cannot teach away from the papers.

For these reasons I think that if the matriculation examination be entirely removed from the control of the University, and made subject to persons acquainted with school work, an immense improvement of method could be achieved, such that the entering college student would be more hopeful material than he is now, and, if vernacular be the language of education, he could achieve a decent knowledge of English by the time he reaches college in spite of the reduced attention given to the subject.

WHITEHEAD, The Right Rev. H.

(i) I think that the ideal to be aimed at is to make the vernaculars the medium of instruction and examination at every stage in the University course; but I do not think that the time has yet come for making this change in the University course.

(*b*) I think that English ought not to be the medium of instruction in any high school. It will probably be necessary, however, for the first three classes, preparatory to the matriculation, to be taught in English so long as all the University teaching is given through the medium of English. But I should like to see a double set of classes introduced for these top three classes—one for students who are going to the University and the other for those who are not going to the University. In the latter, I would make the vernaculars the medium of education and aim at giving a good working knowledge of English, with a vocational education in subjects that will prepare students for their work in life.

WILLIAMS, Rev. GARFIELD.

(i) Yes.

(ii) (*a*) and (*c*) No.
(*d*) and (*e*) Yes.
(*f*) Yes; a considerable course whose object will be to make them acquainted with the thought and language of the Victorian and subsequent age, and the influence of the progress of the subjects they are studying upon that thought and language.

Facility in expressing themselves in the English language through thesis writing, essays, and précis writing.

Oral English.

A well thought out course of reading with the object of imparting to them a general knowledge of the world in which they live. I would have in such a course something equivalent to the "general knowledge" papers of English schools.

WORDSWORTH, The Hon'ble Mr. W. C.

(i) No; I believe that students should be permitted to use their own vernaculars in all university examinations and that, where the desire exists, teaching should be given in the vernaculars so far as circumstances permitted.

(ii) (*a*) My answer is in the negative; but I consider that the majority of students have on their entrance to the University, an inadequate command of English.

Only a minority can talk or understand spoken English, and few are able to take down a piece of simple English from dictation.

(*b*) I think that the teaching of English would be improved if schools were permitted to make it a second language, and not the medium of instruction in the higher classes.

(*c*) I am not satisfied; numbers of teachers of English have not the necessary scholarship or familiarity with the language; they teach "dictionary" English and deplorable grammar and pronunciation. I suggest an oral examination in English at the B. A., and in schools more dictation, reading, parsing, analysis—in short, a general elevation of scholarship, competence, and instruction.

(*d*) Yes; I would have training in modern English in school, the same with some English literature in the first two years of college life, and a more concentrated study of English literature, not neglecting grammar, composition, conversation, etc., in the last years.

(*e*) No; the choice should be left to candidates.

(*f*) No; I would gladly see the University bring into association with itself the indigenous learning of the country, and confer its degrees on, *e.g.*, Sanskrit and Arabic scholars who might be ignorant of English. I would make English merely an optional subject, but would have it understood that a candidate might be rejected for an inadequate knowledge of English whatever the course he offered, if he answered his papers in English.

(iii) This is answered above, so far as I am able to answer it. If the candidate had the choice of answering his papers in his vernacular, or in English, on the understanding that he might be failed for inadequate facility in the medium chosen, the rest of the problem would remain to be solved by schools and by parents.

YUSUF, Khan Sahib Maulvi MOHAMMAD.

(i) The problem of the vernaculars in Bengal concerns itself with Bengali and Urdu only. Bengali being the vernacular of the people of Bengal foreign students would be obliged to learn it as a preliminary to their understanding the lectures were it the medium of instruction. Urdu is the *lingua franca* of India and, further, has pride of place in the affections of the Muhammadans of the large towns particularly; but now that the Muhammadans of villages have entered the ranks of students it seems likely that Bengali will come to occupy a larger place among educated Muhammadans, especially as it is strongly felt in some quarters that it is needed in ordinary competition with the Hindus. At the same time, those Muhammadans of the province who cling to Urdu, and refuse to learn Bengali, are numerous enough to require that, for some time to come at least, education in the Calcutta University should be through the medium of English and, in the circumstances, I am obliged to represent that English should remain the medium.

(ii) (*a*) Students do not, in all cases, possess sufficient command of English at the present entrance stage.

(*b*) English should be the medium in the upper classes of the school.

(*c*) There should be attention paid to composition and home exercise, but in Muhammadan institutions there are features which are more at fault than the method of teaching, *i.e.*, teachers stay only long enough to gain teaching experience and then find employment in some more lucrative calling. The pay and prospects of teachers must be improved sufficiently.

(*d*) In schools emphasis should be laid almost entirely upon a practical training in English. The study of the literature is not essential at this stage.

(*e*) I would advise that answers be given in English at the matriculation examination.

QUESTION 12.

Do you think that the University should do more than is now done to encourage the scientific study of the vernaculars of the Presidency? If so, what changes would you advocate?

ANSWERS.

ABDURRAHMAN, Dr.

The universities of India should have a dual purpose. They should not only impart Western or Eastern learning, but should also Westernise oriental education and orientalise Western education. The president of the University of Chicago has said that in the past it was from the East that the spirit of culture had gone to the West. The spirit of the West should now humanise the learning of India.

The Calcutta University makes adequate provision for the education of English, Sanskrit, Arabic, and some dead and living foreign languages, but lamentably neglects the study of the vernaculars of the presidency. Bengali and Urdu (which are the languages of the Mussulmans and the *lingua franca* of India) are neglected at the expense of these languages. I do not deny the claim of Sanskrit, Arabic, or other languages taught at present. I know that Sanskrit and Arabic are the keys to the storehouse of Hindu and Islamic knowledge and through these languages alone we can see the great Hindu and Arab philosophers as they are, and not as they appear through the translators' telescope. But they cannot be a substitute for the vernaculars of Bengal. The beauties of a classical literature alone cannot sustain a nation. Patriotism has as much claim on the domain of knowledge as on any other. No one who is not at home among the writers of his own land can understand or appreciate the great minds of other countries.

It is the duty of the Calcutta University not only to cultivate the existent Bengali and Urdu literatures, but also to build the fabric of the great Bengali and Urdu literatures of the future. Great writers and poets may be born, but they need a good deal of making.

There is no greater mistake than to imagine that no one requires a schooling in his own tongue. The universities of England for a long time laboured under the mistake till they discovered the great harm they had thereby done to the mother tongue of the English people.

Some may ask what there is to study in the Bengali and Urdu languages. This shows but a deep ignorance of the scientific and academic study of philology. The Syrian or Egyptian youth who wishes to learn the philology of his own language has to go to Berlin. The Persian who desires to learn *Dari* or *Pahlavi* has to go to Strassburg. I do not want the student of Bengali or Urdu philology to go abroad. There can be no greater intellectual poverty and shame for a people.

Again, the history of the Bengali and Urdu literatures affords a life-work opportunity to the scholars of any university.

Composition in one of the vernaculars is at present insisted upon as compulsory in the Calcutta University, but this alone can in no way serve any of the purposes stated above. Therefore, I would advocate that the Calcutta University should, as a first step in this direction, include Urdu and Bengali among the list of languages for the matriculation [Reg., ch. XXX sec. 9 (3)] and intermediate (XXXI, sec. 7, Gr. A) examinations for the male students like the female students. The Bengali and Urdu languages should be added to the list of languages for the B.A. degree (XXXII, sec. 4, Gr. A). And Bengali and Urdu should be added to the subjects of the master of arts examination (XXXIII, sec. 5).

A conference of distinguished orientalists, held at Simla in July, 1911, recommended the establishment of a central research institute on the lines of the School of Oriental Languages at London, *L, Ecole Française d'Extreme Orient* at Hanoi or the Oriental Institute at Vladivostok. The Calcutta Madrassah presents all the possibilities of developing into such an institution. A college of Sanskrit and Hindu learning should be added

ABDURRAHMAN, Dr.—*contd.*—AHMED, TASLIMUDDIN, Khan Bahadur—AIYER, Sir P. S. SIVASWAMY—ALI, The Hon'ble Mr. ALTAF—ALI, Saiyad MUHSIN—ALI, Nawab NASIRUL MAMALEK, MIRZA SHUJAAT, Khan Bahadur—ARCHBOLD, W. A. J.

to the Madrassah. The study of Turkish, Chagta, Tartar, and other Turanian languages should also be included. What treasures of historical information could be discovered if new light could be thrown on the dark passages of Indian history with the help of these languages. The Pandits and the Maulvis should be retained, as urged by Sir R. G. Bhandarkar "as possessing a depth of knowledge lacking in the modern scholar", and modern Europe-trained research scholars should be added. Students should be trained in original work with a view "to found schools of Indian history and archæology, prepare catalogues *raisonnés* of manuscripts, develope museums, and investigate the Indian civilisation with the help of the medium of Western methods of research in all the subjects which comprise *Orientalia*".

AHMED, TASLIMUDDIN, Khan Bahadur.

Bengali and Urdu, like Sanskrit, Arabic, and Persian, should be recognised as second languages, and the University should grant the M.A. degree in these languages also.

AIYER, Sir P. S. SIVASWAMY.

I do not quite understand what is meant by a scientific study of the vernaculars. What is wanted is to rescue the study of the vernaculars from the neglect into which it has fallen. Every student should be obliged to acquire a knowledge of either a vernacular or a classical language and the standard of knowledge to be aimed at should be one which would enable the student to appreciate the best treasures of literature in his language. A knowledge of the principles of philology and modern methods of criticism may also be aimed at, but it should only come on the top of the standard of knowledge I have indicated, which is essential for purposes of culture.

ALI, The Hon'ble Mr. ALTAF.

The vernacular should be a compulsury subject up to the I. A., and at least two text-books on literature and on grammar should be taught.

ALI, Saiyad MUHSIN.

Yes; it should be taught as an additional optional subject.

ALI, Nawab NASIRUL MAMALEK, MIRZA SHUJAAT, Khan Bahadur.

Yes; but unless a status is given to the vernacular its progress will be slow. *Vide* my answer to question 2.

ARCHBOLD, W. A. J.

Of course. We have six (strictly six and a half) teachers of English in the Dacca College and one teacher of Bengali. Can anything be more ridiculous? This is in no way due to the organisation of the college, but is the direct result of the requirements of the University. I regret to say that there seems to be little academic enthusiasm for the cultivation of the vernaculars.

Association of University Women in India, Calcutta Branch—Aziz, Maulvi Abdul—Banerjea, J. R.—Banerjea, Dr. Pramathanath—Banerjee, Gauranganath—Banerjee, Sir Gooroo Dass—Banerjee, Jaygopal.

Association of University Women in India, Calcutta Branch.

We would suggest an honours course in modern languages on the analogy of the modern languages tripos at Cambridge and the honours school in modern languages at Oxford.

Such a course should include the following :—

(*a*) A modern Indian venacular.
(*b*) The corresponding classical language.
(*c*) English.

We would also urge that a higher standard should be required for the vernacular paper included in the B.A. arts course.

Aziz, Maulvi Abdul.

I do not think it necessary and, if done, it will serve any useful purpose.

Banerjea, J. R.

Certainly; founding of chairs in the University is necessary for this. Also scholarships, prizes, etc., should be instituted in the University to compass this end.

Banerjea, Dr. Pramathanath.

Yes; the University ought to do more than is now done to encourage the scientific study of the vernacular. It should undertake the translation of standard works in other languages into the ernaculars.

Banerjee, Gauranganath.

I strongly support the view that the Calcutta University should do more than is now done to encourage the scientific study of the vernaculars of the presidency. To carry out this satisfactorily the University should introduce a compulsory course of practical training in the use of vernacular language; and also training in the study of vernacular literature in all stages up to the degree examination. The comparative, historical, and philological study should form a subject of the post-graduate instruction.

Banerjee, Sir Gooroo Dass.

To encourage the scientific study of the vernaculars of the presidency the University should do something more than what is now done. It should prescribe vernacular text-books both in prose and poetry, and should examine candidates not merely in style, but also in the subject matter and language of the text-books.

Banerjee, Jaygopal.

Certainly; the vernacular course and the corresponding examination should be made more of a reality, and two papers assigned to it. A well-selected course of standard prose and poetry, but more extensive than what is now prescribed, should form

the subject of these papers and a demand ought to be made for studying vernacular literature with reference to philology, history of literature, and literary criticism. Too subordinate a place is now assigned to the vernaculars, though a good beginning has certainly been made by its academical recognition. This subject should be regularly taught in the manner in which, for example, English literature is taught in America.

It is the duty of the University to encourage its professors to carry on philological researches and write standard books of criticism in the vernaculars on the history of literature, on scientific subjects, and translate from other languages the *classical* works. They should also prepare an extensive vocabulary for adoption by the country, especially in respect of technical words used in the different sciences. It is time for the University to do the work of academies in the West to foster the growth of vernacular language, and set up a high standard in style. A *comparative* study of grammar, philology and literature is equally necessary.

Advanced vernacular text-books in history, economics, logic, certain branches of philosophy and science can now be produced under the auspices of the University to justify its motto of "The Advancement of Learning". Journalism in the vernaculars should also pass into the hands of university men well-versed in composition and possessing a wider outlook and more intelligent and well-informed grasp of present-day problems and capable of discussing matters affecting the government and the destiny of a vast population from the sober standpoint of judicious criticism of men and measures.

BANERJEE, Rai KUMUDINI KANTA, Bahadur.

Yes; philological study of the vernaculars should be encouraged and stimulated by fellowship and research scholarship. Higher standard books in science, mathematics, philosophy, etc., should be translated into the vernaculars by the University.

BANERJEE, MURALY DHAR.

Yes; the vernacular courses should be carried up to the post-graduate stage and should include the following:—

(*a*) Specimens of modern and ancient literature.
(*b*) History of language and literature.
(*c*) Grammar and philology.
(*d*) Composition, which is at present the only test required.

BANERJEE, RAVANESWAR.

Yes; the changes proposed are as follows:—

(*a*) Prosody should be included in the matriculation course. Some text-books should be prescribed for all the university examinations, which should aim at testing the attainment of candidates in the subject, as well as the knowledge of the text-books prescribed. Allotting a large percentage of marks to translation and essay writing is calculated to discourage scientific study.

(*b*) Special study of some standard author in the vernacular in the intermediate stage should be insisted upon. Rhetoric should remain a part of the vernacular course, as at present.

(*c*) In higher stages, a study of ancient literature should be enforced.

BANERJEE, SASI SEKHAR—BANERJEE, SUDHANSUKUMAR—BANERJI, The Hon'ble Justice Sir PRAMADA CHARAN—BANERJI, UMACHARAN.

BANERJEE, SASI SEKHAR.

I am only competent to express my opinion on the Bengali vernacular as I have little acquaintance with other vernaculars. So far, then, as Bengali is concerned my answer is in the affirmative. What I should like to propose is that it should be taught on the lines of the teaching of English in colleges.

BANERJEE, SUDHANSUKUMAR.

Yes; the University should make an attempt to put the study of the vernaculars and the study of English on the same footing by introducing a more comprehensive syllabus of study in vernacular literature and language for the different examinations. There should be two compulsory papers in the vernacular of the Presidency, instead of one (as in the existing system) in the matriculation, the intermediate examinations in arts and science, and the B.A. examination. The first paper should encourage the study of vernacular literature (for which suitable text-books might be prescribed by the University) and the second paper should encourage the study of grammar and composition of the vernacular. For the B.Sc. examination there should be only one paper in which candidates should be asked to write some scientific essay in the vernacular.

BANERJI, The Hon'ble Justice Sir PRAMADA CHARAN.

I think the study of the vernaculars should be encouraged by the universities, but I do not deem it desirable that there should be degrees or diplomas in the vernaculars. Students appearing in the higher examinations in arts may be required to show a general knowledge of their vernaculars by writing essays.

BANERJI, UMACHARAN.

Yes; the vernacular language and literature should be a subject of study for the I.A. and I.Sc. and B.A. and B.Sc. examinations.

No system of education can be popular or really successful which does not make ample provision for the education of the masses. Education that is imparted through the medium of a foreign tongue—as is done at present—may produce highly intellectual men, but their number will always be very limited, and the knowledge they may acquire will remain confined to themselves. If our educationists wish to uplift the illiterate classes by giving them a share in the blessings of knowledge they can do so only by imparting instruction in the vernaculars. Our vernaculars, especially Bengali, are indeed no longer neglected; its inclusion in the B.A. curriculum is, no doubt, a healthy introduction. But I believe the study of Bengali literature needs further encouragement, and it should be systematically taught for all the examinations from the B.A. and B.Sc. downwards, and might, with advantage, be made a separate subject for the M.A. examination.

I believe the initiative in this matter was first taken by the Hon'ble Sir Asutosh Mukherjee, and it was through his great influence that Bengali first came to be recognised as a subject of study for the several university examinations.

The Bengali language is very rich, flexible, and resourceful, and it can increase its usefulness by drawing largely upon the vocabulary of other tongues, especially Sanskrit, its parent stock. It possesses the sweetness and melody of Sanskrit, without its grammatical difficulties and peculiarities, and is fully suited to the expression of the finest and subtlest shades of thought and emotion. The *Bangiya Sahitya Parisad* and its

branches, the *Sahitya Sabha* and other allied societies, which have done admirable work in this connection, urge the use of Bengali as a medium of instruction in all classes of institutions from the highest to the lowest. Other powerful agencies, such as good books, periodicals, and pamphlets, have exerted a great influence in various ways.

BARDALOI, N. C.

Yes; there should be regular lecturers in the vernaculars, and there ought to be research scholars.

BASU, P.

Yes; the University should do more in this respect than it does at present. The present method of including the vernacular as the compulsory second language of one paper in the I.A., I.Sc., and B.A. examinations is an improvement on the older method of having an optional examination in composition. But its scientific study can be, and ought to be, further encouraged by the University. For this purpose the following changes seem to be desirable :—

(*a*) The vernacular should be converted into a separate subject consisting of three papers. The third paper should be the same as the paper existing at present. The other two papers should be on texts, as in the case of English and the second languages. Speaking for the Bengali language I feel confident that there are really good and instructive books which can form the subject of study without lowering the standard, as compared with other subjects.

(*b*) As, at present, the vernacular should be compulsory in the I.A. and I.Sc., and, if it be possible without unduly prolonging the course of study, even in the B.A. But this may not be possible in case the new recommendations of the board of higher studies as to the B.A. honours course be accepted. At least it ought to be kept there as a proper subject which the students would be allowed to take up either in the pass or in the honours.

(*c*) Steps should be taken to introduce the vernacular (I can speak for Bengali only) as a literary subject in the M.A. course like the modern and classical languages. For this purpose text-books in Bengali are abundant even for frequent changes of courses of study. Comparative philology, as taught at present in connection with Sanskrit, may profitably form a part. The only difficulty seems to be at present as regards actual text-books on the history of the language. Not that there are no good books, but that they are not as numerous as could be desired. Nor are there many really good books of criticism. But this is a question of time if the subject be introduced into the University.

(*d*) In subjects other than linguistic text-books should be prescribed in the vernacular, as well as in English, so that their free use would be encouraged in the colleges, although for a long time the medium of instruction must remain English.

(*e*) The University, with the help of Government, ought to encourage the writing of text-books in the vernacular in subjects proper for study in the higher classes of the University. At one time (forty or fifty years back) the writing of text-books all over India was subsidised, so to say, and certain funds were advanced to experts for such purposes. In Bengal Pandit Ishar Chandra Vidyasagar, among others, got such financial help for writing books for students of the lower classes in schools. The result was the series of such books which are even now standard ones for young boys. Thus, paucity of books in the vernacular was removed by ensuring that no loss would fall on the authors thereof. The system, with more rigid rules and under proper supervision of an expert department of the University, may be profitably introduced for having books written for the higher classes of the University in the vernacular languages.

BASU, SATYENDRA NATH—Bengal Landholders' Association, Calcutta—Bethune College Calcutta—BHADURI, JYOTIBHUSHAN, DEY, B. B., and DUTTA, BIDHU BHUSAN.

BASU, SATYENDRA NATH.

Better arrangements as to attendance at lectures and training in Bengali seem desirable if certain minimum marks should be, as they are at present, necessary for a pass.

Bengal Landholders' Association, Calcutta.

The University should do more than it has now done to encourage the scientific study of the vernaculars of the presidency. We would insist upon a Bengali student learning Hindi as a second language, in addition to his own vernacular.

Bethune College, Calcutta.

Bhattacharya, K. C.
Sen, P. C
Chatterjee, K. B.
Roy, D. N.
Chowdhury, B. K.

If only the University formally recognises the vernaculars as the medium, and encourages the production of college text-books, it will be giving a powerful stimulus to the study of the vernaculars. It may, however, directly encourage the study in the following ways:—

(*a*) It may widen the present obligatory tests in vernacular composition into full tests in language and literature; definite books, authors, or periods being prescribed for study.

(*b*) It may allow those who offer English literature as one of their subjects to take up optionally one or more papers in vernacular literature.

(*c*) It may make a comparative study of the developed vernaculars of India a full subject of examination, alternative with other subjects.

(*d*) It may arrange for post-graduate research in the philology of the vernaculars.

Janau, Miss A. L.

My answer to question 11 partly answers this question. Further, the study of the main vernaculars should receive as much attention as the language of any European country receives in the universities of such country. Its history, philology, literature, and modern developments should all form a subject in the B.A. and M.A. degrees.

BHADURI, JYOTIBHUSHAN, DEY, B. B., and DUTTA, BIDHU BHUSAN.

The vernaculars are now recognised up to the B.A. stage by the University as subjects of study, but they have been relegated to an inferior position as compared with other subjects.

Lectures in the vernaculars are delivered once a week only, attendance is not compulsory, and about half the full marks are set apart in the University examinations for translation from English. Such nominal tests should be abolished and the teaching and examination should be conducted in Bengali, Hindi, and Urdu on the same lines as in the case of English.

The standard vernacular works should be studied both for their subject matter and as models of style. More attention should be paid to the history of vernacular literature and the comparative philology of the Sanskritic languages.

For B.A. students an examination for honours in Bengali, Hindi, and Urdu may profitably be instituted as in the case of other subjects.

BHANDARKAR, Sir R. G.—BHATTACHARYA, KRISHNACHANDRA—BHATTACHARYYA, BAIKUNTHA NATH—BHATTACHARYYA, DIBAKAR—BHATTACHARYYA, HARIDAS.

BHANDARKAR, Sir R. G.

The Bombay University does encourage the scientific study of vernaculars so far as it has laid down English and one of the vernaculars as one of the groups to be taken up for the M.A. examination. As regards the matriculation a paper on a candidate's vernacular might be set at that examination or a certificate from the headmaster of his school of the candidate's having passed in the vernacular might be considered sufficient. As to the college first-year course, the intermediate and the B.A. examinations, the setting of a paper in the vernacular is likely to entail an additional burden on students. To obviate this, to a large extent, a theme for an essay, instead of a paper on books, might be set at each examination to test the candidate's command over his vernacular.

BHATTACHARYA, KRISHNACHANDRA.

The University may encourage the study of the vernaculars by the following methods :—

(*a*) Widening the present obligatory tests in vernacular composition into full tests in language and literature, definite books, authors, or periods being prescribed for study.

(*b*) Allowing those who offer English literature as one of their subjects to take up optionally one or more papers in vernacular literature in lieu of one or more papers in English literature.

(*c*) Arranging for post-graduate research in the philology of the vernaculars.

(*d*) Making a comparative study of the developed vernaculars of India a full subject for examination alternative with other subjects.

BHATTACHARYYA, BAIKUNTHA NATH.

Yes; a scientific study of vernacular literature, with appropriate gradations, should be introduced into the matriculation, intermediate, and B.A. examinations, and should also form a subject for the post-graduate degree.

BHATTACHARYYA, DIBAKAR.

The University should encourage the scientific study of the vernaculars of the presidency. In order to stimulate that study it should make the vernacular prominent by adopting it as the medium of instruction; all science subjects should be taught in it, and it should be made a subject of examination in the M.A.

BHATTACHARYYA, HARIDAS.

The University can, and should do, a good deal more to improve the study of the vernaculars. We have very good novels, tolerably good dramas and epics, first class lyrics and songs, a growing critical literature, and fine old songs, besides translations of Sanskrit works. I think Bengali can very easily be raised to the status of an optional subject in the intermediate and the degree stage, in addition to being a compulsory subject.

The intermediate course may be of a slightly higher standard than the present course for female candidates. The B.A. course may include the following :—

(*a*) Poems and epics in the first paper;

(*b*) Dramas and novels in the second paper;

(*c*) Specimens of old Bengali and history of Bengali literature in the third paper.

BHATTACHARYYA, HARIDAS—*contd.*—BHATTACHARYYA, Mahamahopadhyaya KALIPRASANNA—BHOWAL, GOVINDA CHANDRA—BISVAS, Rai DINANATH, Bahadur—BISWAS, CHARU CHANDRA.

Bengali literature is likely to get such an impetus from the vernacular medium of instruction and examination that provision for an honours course even might be made from now and the course laid down as follows:—

First paper	Poetry (modern).
Second ,, ...	Epic literature.
Third ,, ...	Dramas and books of criticism.
Fourth ,, ...	Poetry (old) *e.g.*, the *Vaishnava* literature.
Fifth ,, ...	History of Bengali literature.
Sixth ,, ...	Translations of Sanskrit books; philosophical and religious books.
Seventh ,, ...	History of Bengal, with special reference to epigraphy and archæological remains.
Eighth ,, ...	Essay.

In this connection, we should gratefully acknowledge that the University has done much in recent years to foster a scientific study of the vernaculars.

BHATTACHARYYA, Mahamahopadhyaya KALIPRASANNA.

Yes; the University ought to make arrangements for teaching systematically the vernaculars of the presidency. There ought to be more advanced text-books, and lectures thereon should be more systematic, as is the case in the other subjects. In this connection, I beg leave to suggest that, along with the existing groups for the M.A. in Sanskrit, one group for the vernaculars may be introduced.

BHOWAL, GOVINDA CHANDRA.

Yes; for those students whose study would be linguistic vernacular should be a part of their literary course. A vernacular text-book should be fixed for efficient teaching of the vernaculars. Text-books on the histories of the vernaculars taught in the University should be fixed as text-books. Vernacular grammars should be taught. The teachers of the vernaculars should also be well read in English literature. As a help to the improvement of the Bengali language a thorough study and knowledge of Sanskrit is absolutely requisite as the latter is the basis of the former.

BISVAS, Rai DINANATH, Bahadur.

To improve the vernaculars of the province I think the University should encourage the scientific study of the vernaculars, and the University should publish suitable books to encourage such study.

BISWAS, CHARU CHANDRA.

My reply is in the affirmative. I would recommend the following:—

(*a*) Vernacular (both literature and composition) should be made a compulsory subject up to the degree stage.

(*b*) A master's degree should be instituted at the earliest opportunity in the vernaculars (Bengali to begin with).

(*c*) Scholarships, etc., should be liberally provided for fostering the study of the vernaculars.

BOROOAH, JNANADABHIRAM—BOSE, Rai CHUNILAL, Bahadur—BOSE, HARAKANTA—BOSE, KHUDI RAM—BOSE, Miss MRINALINI—CHAKRAVARTI, CHINTA HARAN—CHAKRAVARTY, NIRANJAN PRASAD.

BOROOAH, JNANADABHIRAM.

There should be chairs for the vernaculars in the University to encourage the scientific study of the languages and students should be encouraged to take degrees in those subjects. I do not think it is done now—at least there is no chair for Assamese in the University.

BOSE, Rai CHUNILAL, Bahadur.

Yes; the vernaculars should form one of the subjects of study and examination up to the B.A. stage, and a special M.A. degree may be created for proficiency in Bengali.

BOSE, HARAKANTA.

Yes; for the B.A. examination the history of a vernacular language and its literature, and a critical study of the writings of a standard vernacular author, should form the chief parts of an optional subject. Examinations may also be held for higher degrees in the vernaculars of the presidency.

BOSE, KHUDI RAM.

While the study of vernacular literature and language should constitute an integral part of all the University examinations, as has been the case since the promulgation of the new regulations, the scientific study and research of the vernaculars in the presidency may very advantageously be postponed or relegated to other literary bodies until these develope themselves more and more up to a higher pitch of refinement.

BOSE, Miss MRINALINI.

Practically, the only vernacular of the province being Bengali, I do not think that the University can do very much more for it than it is doing at present. But I think both boys and girls should be allowed to take Bengali as their second language for the matriculation examination, if they wish it.

CHAKRAVARTI, CHINTA HARAN.

Yes; over and above a general knowledge of the vernacular a special study of some standard author or authors suited to the capacity of students should be required of candidates for all examinations in which the vernacular is now one of the subjects. Questions should be so framed as to test the candidate's general knowledge of the vernacular, as well as his special knowledge of the standard works of the author or authors prescribed for the purpose.

CHAKRAVARTY, NIRANJAN PRASAD.

It can never be denied that the University should do much more than is done at present to encourage the scientific study of the vernaculars. Vernaculars have now, indeed, been incorporated into the University curriculum up to the B.A. standard, but it is a great pity to see that really no importance is attached to them by most of the colleges

CHAKRAVARTY, NIRANJAN PRASARD—*contd.*—CHANDA, The Hon'ble Mr. KAMINI KUMAR —CHATTERJEE, The Hon'ble Mr. A. C.—CHATTERJEE, Rai LALITMOHAN, Bahadur —CHATTERJEE, P. K—CHATTERJEE, PRAMATHANATH.

affiliated to the University. There is no arrangement for lectures on vernacular subjects in colleges, the number of which is, unfortunately, very great. There are, indeed, several books recommended for students, but they are generally meant only for improvement in style, and the reading of them is generally neglected by students. It would be better, therefore, to rearrange the syllabus in some other way tending to be more beneficial to students. I would like to suggest, therefore, that up to the matriculation standard alone books may be recommended for the improvement of style, as well as for general information about the literature, but, in all stages above it, the subject may be treated as a more important one and students may fairly be asked to acquire sufficient knowledge in the history of vernacular literature and should, at the same time, be acquainted with several works of standard authors, if possible. Higher examinations and research scholarships may also be arranged for encouraging the scientific study of the vernaculars in different branches, and facilities must be provided for the publication of the works of eminent authors, ancient and modern.

CHANDA, The Hon'ble Mr. KAMINI KUMAR.

Yes; it may, for instance, provide readers and lecturers of vernacular.

CHATTERJEE, The Hon'ble Mr. A. C.

The vernaculars should be included in the syllabus of linguistic studies up to the highest degrees. Also, all students taking up linguistic studies should be encouraged to study at least one Indian modern language in addition to their own.

The University should also undertake editing and reprinting works in the Indian languages of earlier centuries.

A number of post-graduate studentships should be founded for the study of the Indian vernaculars. Prizes and medals should be awarded, open to students at different stages of their University career, for composition and original work in the vernaculars, apart from the ordinary degree examinations or examinations preliminary to degrees.

CHATTERJEE, Rai LALITMOHAN, Bahadur.

I think that Bengali should be taught as literature and a graduated course introduced for all examinations from the matriculation to the bachelor stage. Research work should be encouraged in the bachelor stage. For the highest examinations of the University, in which the submission of a thesis is required, option should be given to students to write the thesis in Bengali if they so choose. Prizes for research work in the vernaculars should be given.

CHATTERJEE, P. K.

The present University regulations have made no provision for regular courses of training in the vernaculars. Consequently, students, as a rule, do not pay much attention to these subjects. To devote one's best energies to acquiring a fairly good knowledge of English and, at the same time, to neglect the vernaculars, does not seem to me a very desirable state of affairs. A course of lectures in the vernaculars should be definitely prescribed by the University, as in the case of other subjects.

CHATTERJEE, PRAMATHANATH.

This question is very intimately connected with the question immediately preceding it. If vernacular education is to make any headway in the country, and if schools

and colleges on a vernacular basis are to be established, it is absolutely necessary to prepare suitable text-books in science and mathematics, philosophy and history, medicine and engineering, and other subjects. The University should lose no time in editing such books, under the supervision of Indian experts, on those subjects. Fortunately for Bengal such men are not rare in the country. The existing method of teaching Bengali and Urdu is quite amateurish, and should be replaced by a more scientific method so that it may be possible for the University to confer the highest degree in the subject. I am decidedly of opinion that few Indians can achieve the very highest results in the domain of English literature and, if modern India is to leave any mark in the literary world, it will be recorded in the mother tongue of the people. The genius of a nation can only be expressed in the language of the country.

CHATTERJEE, RAMANANDA.

Yes; suitable courses of study should be prescribed.

Teachers of these courses should have a thorough grounding in philology and comparative philology. Mere Sanskrit pandits will not do.

The University professor or professors in charge of the scientific teaching of a vernacular should have real scholarship. The chairs should be filled after due advertisement of vacancies.

I may be allowed to say here that Bengali literature should be read more as literature than it is at present, and that the great majority of books recommended or prescribed should not be those written in an artificial, stilted, and ornate Sanskritic style. Mussulmans object, and rightly object, to the prescription of such books. I also consider them objectionable from the point of view of style and diction for Hindu students, too. Bengali is not, as Sanskrit pandits would have us believe, Sanskrit with only the verbs and case endings vernacularised. It has an independent existence. Non-Bengali members of the Commission may have some idea of the kind of Bengali style generally favoured by the University if I say that it is Bengali Johnsonese sometimes run mad.

CHATTERJEE, Rai Bahadur SARAT CHANDRA.

Yes; by providing more chairs for the study of the philology, history, and literature of vernacular languages and by publishing old standard works of vernacular languages with proper introductions and annotations.

CHATTERJEE, SATIS CHANDRA.

It is possible, as well as desirable, to encourage the scientific study of the vernaculars of the presidency by making them the media of instruction and of examination, as far as possible, in the course of school and university training. In fact, except in technical subjects, the vernacular should be the medium up to the highest teaching. This, however, is not quite practicable under the circumstances in which we find the vernaculars of the presidency at the present day.

CHATTERJEE, SUNITI KUMAR.

Certainly, there is a growing interest among Indians themselves (at least among Bengalis and Tamilians) in the scientific study of the vernaculars. Recently, some theses were submitted to the University on subjects connected with Bengali literary history and philology and, in all cases, the examiners have spoken highly on the merits of these

CHATTERJEE, SUNITI KUMAR—*contd.*—CHATTERJI, MOHINI MOHAN—CHAUDHURI, The Hon'ble Justice Sir ASUTOSH—CHAUDHURI, BHUBAN MOHAN—CHAUDHURI, HEM CHANDRA RAY.

theses. The University has appointed a reader in Bengali, and some valuable publications have been the result of this appointment. But the University should certainly do more. Among other things I would suggest the following :—

(*a*) Institute examinations in the vernacular (Bengali) for the M.A. and B.A. (pass and honours) degrees, and for the intermediate and the matriculation. The honours B.A. and M.A. courses in Bengali cannot but promote a spirit of research in the candidates who will take these up. [I would refer to a course of studies in Bengali for honours B.A. and M.A., which has been prepared by Mr. Sushil Kumar De, M.A. (University Lecturer in English), in consultation with several other gentlemen and myself, and which has been appended by Mr. De in his reply to this question.] Students from the early undergraduate period may be made to pay due attention to the scientific study of their mother tongue if the University draws up a suitable syllabus and publishes or recommends books on the subject by competent scholars.

(*b*) Institute research scholarships, readerships, and professorships, etc., for the scientific study of the vernaculars. At present, there is no endowment (except one) for this purpose. Scientific subjects have received greater patronage in the University than arts subjects; one or more research scholarships for the study of the vernaculars are urgently necessary.

(*c*) Send scholars doing research work in vernacular philology to foreign universities to better qualify themselves in their subject, and to different linguistic areas in India to study the allied vernaculars in order to be better enabled to pursue their investigations into historical and comparative grammar.

(*d*) Undertake the compilation of a dictionary of Bengali on the lines of the Oxford Dictionary, or of a dictionary of the *Prakrit* dialects.

CHATTERJI, MOHINI MOHAN.

Linguistic studies can never be complete without a scientific knowledge of one's own vernacular. Besides, neglect of the vernacular will tend to generate an educated class, segregated from the rest of the people—a result much to be deprecated.

CHAUDHURI, The Hon'ble Justice Sir ASUTOSH.

The University should do more that it has now done to encourage the scientific study of the vernaculars of the presidency. I would insist upon a Bengali student learning Hindi as a second language in addition to his own vernacular.

CHAUDHURI, BHUBAN MOHAN.

To encourage the scientific study of the vernaculars of Bengal a professorship should be created by the University for the study and teaching of Bengali and there should be research scholars under him to carry on investigations in that subject.

CHAUDHURI, HEM CHANDRA RAY.

Yes; the vernacular should be placed on a footing of perfect equality with Sanskrit, Pali, Arabic, and Persian so far as the B.A. honours and M.A. examinations are concerned. The University should employ eminent scholars to translate into the vernaculars valuable works written in foreign languages. These works should be recommended as text-books by the University.

CHAUDHURI, The Hon'ble Babu KISHORI MOHAN—CHAUDHURY, The Hon'ble Babu BROJENDRA KISHORE ROY—CHAUDHURY, The Hon'ble Nawab Syed NAWABALY Khan Bahadur.

CHAUDHURI, The Hon'ble Babu KISHORI MOHAN.

I think that the University should found chairs for the scientific study of the vernaculars and should undertake to collect and publish old manuscripts in these languages. Useful work in this direction is, I understand, being done by the *Bangiya Sahitya Parisat* which should receive every support.

CHAUDHURY, The Hon'ble Babu BROJENDRA KISHORE ROY.

Yes; the University should do more to encourage the scientific study of the vernaculars of the province. Nothing is practically being done in this respect by the University except by making examination in the vernaculars compulsory up to the B.A. and B.Sc. standards. The scientific study of Bengali literature which is based on Sanskrit involves, however, a regular study of Sanskrit grammar and Sanskrit literature. Bengali literature cannot be properly improved or developed in the right direction or be made a rich literature without a proper study of, and without basing it on, Sanskrit literature which is really its mother. I would, therefore, suggest that the study of Sanskrit literature and grammar should have a far better consideration at the hands of the University authorities, and should be far more widely read as a compulsory second language by Hindu students of the University than at present. The misfortune, however, is that very few among our best English scholars are real Sanskrit scholars who could be real judges of the place which the study of Sanskrit should be given in the development in the right line of our Bengali literature. But, in any case, if Bengali literature is to be properly developed on the right lines so as to be able to occupy a high rank and a place of dignity among the vernaculars of the country, and if we want our vernaculars to help and influence us in maintaining our highest national ideas, the making and development of it must be in the hands of men who are great Sanskrit scholars as well.

CHAUDHURY, The Hon'ble Nawab Syed NAWABALY, Khan Bahadur.

If the object of the scientific study of the vernaculars of the presidency is to create in students a more intelligent interest in languages surely there is much room for further improvement in the method of teaching them. At present, the aim, especially as regards Bengali, is to Sanskritise it. The University encourages authors who write with this aim. As the Dacca University Committee Report observes :—"Bengali literature is at present permeated mainly by Hindu ideas and there is a great paucity of literature on subjects derived from authentic Arabic or Persian sources such as will interest Muhammadan students". I may name a number of books which are at present included in the text-books for the various university courses which are highly distasteful to Muhammadan sentiment. There are others as well which are swamped by hundreds of Sanskrit quotations and in which at least fifty per cent. of the words used are from Sanskrit. It is, therefore, highly necessary that the University should exert itself to remove this defect with a view to a better understanding of the language by students. Bengali is the product of the joint patronage of Muhammadans and Hindus alike, and the University should not exercise its power and influence to convert it into a mainly Hindu language. Any attempt, therefore, to encourage the scientific study of Bengali ought to be helpful to both the communities.

The scope of the vernaculars of the presidency is so limited, if viewed in proper perspective, that, as I have suggested in my answer to question 4, one can master them if properly taught before he enters the University. I am, therefore, opposed to the regular teaching of the vernaculars above the matriculation standard. To attempt to provide for a further teaching of the language beyond the matriculation is to place before the students a Sanskritised form of the language which can easily be understood by those Hindu students who have had a training in Sanskrit in the matriculation

CHAUDHURY, The Hon'ble Nawab Syed NAWABALY, Khan Bahadur—*contd.*—CHOUDHURY, Rai YATINDRA NATH—COCKS, S. W.—CULLIS, Dr. C. E.—DAS, Rai BHUPATINATH, Bahadur.

classes, but will be wholly unintelligible to Muhammadan students who have had no previous training in Sanskrit in the matriculation stage, but have taken Arabic or Persian. Muhammadan students will, therefore, be adversely affected as compared with Hindu students inasmuch as they will have to pay special attention to this subject at the sacrifice of other important subjects.

CHOUDHURY, Rai YATINDRA NATH.

The phrase "scientific study of the vernaculars" is somewhat vague; at least I am not sure that I have grasped its full meaning. Even under present conditions the University should do more than is now done to encourage the study of our vernaculars. The lines on which I think our University should at once proceed may be briefly summed up as follows :—

Text-books on Bengali literature should be prescribed up to the B.A. standard and separate question papers should be set on those text-books. In the M.A. examination the Bengali language and its connected philology should be included as one of the subjects.

COCKS, S. W.

I am entirely ignorant of the vernaculars of Bengal. If they have as little literature and as little philological value as the vernaculars of Burma it is unlikely that a scientific study of them would give results at all proportionate to the time and labour.

The tendency shown by a certain number of educated Indians to exalt the vernaculars and to depreciate English is reactionary and regrettable. It is safe to assert that no Indian vernacular compares with the chief European languages, say French, English, German, and Italian, as an instrument of thought. Many of them are inadequate even for the purposes of a school curriculum. The mental development of a race whose sole instrument of thought is defective, and which possesses no key to the world's storehouse of knowledge, must be hampered. It might be argued that a race which has evolved so imperfect a vehicle for the communication of thought as Burmese, for instance, has never felt the need, and does not possess the capacity, for high development. But this conclusion is negatived by the facts. The Burman educated in English has shown the ability to handle, and the intelligence to appreciate, a most highly finished instrument of thought. The higher education of the ablest individuals and the development of a numerous body of intelligent citizens in the only province of India with which I am familiar seem to me inseparably connected with the use of a modern European language as the medium of education. In India that language must obviously be English.

CULLIS, Dr. C. E.

This is a question which would be best dealt with by the University itself. The determining factors should be the wishes of the community and the prospects of enhancing the efficiency of elementary education.

DAS, Rai BHUPATINATH, Bahadur.

Vernacular language and literature may be prescribed as one of the optional subjects for all examinations up to the B.A.

DAS GUPTA, HEM CHANDRA—DAS GUPTA, SURENDRANATH—DATTA, A. C.—DATTA, BIBHUTIBHUSON.

DAS GUPTA, HEM CHANDRA.

I think that this presidency has got only one vernacular, and it is Bengali. The University should do more than is now done to encourage the scientific study of Bengali. For this purpose I would suggest the following changes :—

(*a*) At the matriculation, I.A., and B.A. stages suitable text-books should be prescribed and examination should not be simply in translation and composition, but questions on the subject matter of the texts should be set.

(*b*) At the I.A. stage there should be two papers in Bengali, while at the B.A., stage Bengali should rank as an independent subject, with three papers.

(*c*) An examination for the M.A. degree in Bengali should be introduced.

(*d*) Attendance at lectures in Bengali must be made obligatory.

DAS GUPTA, SURENDRANATH.

Bengali is now taught only in name though it has been fixed as one of the compulsory subjects by the University. The text-books selected are generally of an elementary nature. Students never buy them and some of them are such that they are not worth studying or buying at all. It is extremely necessary that proper attention should be given to the study of Bengali and this can only be done by so arranging that Bengali should be treated as a separate subject, having text-books and professors as in the case of any other subject. There should also be an M.A. course in it. A historical and philological study of the subject is essentially necessary and, in the M.A. course, this side may be made prominent. Some courses of Pali, Prakrit, and Sanskrit should be associated with it in order to equip the candidate properly in his subject.

DATTA, A. C.

Yes; and for that reason I have advocated smaller provincial universities, so that the vernaculars of each province may find adequate representation in the curricula of the University.

DATTA, BIBHUTIBHUSON.

Yes; the University should take early steps to encourage the study of Bengali, which is the vernacular of the presidency. It can be *properly* done :—

(*a*) By including Bengali in the list of the subjects in which a candidate may be examined for the degree of master of arts (Reg., chap. XXXIII, 5).

(*b*) By giving it the status of English in all the University examinations.

(*c*) By establishing scholarships for research into the ancient literature of Bengal.

The award of a Nobel Prize for literature to the Bengali poet Sir Rabindranath Tagore, and the way in which the translations of his writings has been received by the scholars of Europe and America, well justifies the richness of Bengali literature. Moreover, in the opinion of the recognised authorities, Sir Rabindranath is not the only good writer of Bengali, but there are others of equal eminence. Hence, there cannot be any doubt that Bengali is fit to be put as a separate subject for the M.A. degree. The Indian Universities Commission of 1902 was strongly in favour of the inclusion of the vernaculars as a subject in the higher courses, even up to the M.A.

DE, HAR MOHUN—DE, SATISCHANDRA—DE, SUSHIL KUMAR.

DE, HAR MOHUN.

Certainly; there should be a prescribed course of readings in prose and poetry. The pieces should be selected from the works of standard and famous authors. The compilation should consist of selections from famous authors of ancient, transition, and modern periods. This paper on vernacular should be compulsory.

DE, SATISCHANDRA.

Yes; there may be created an M.A. degree in Bengali for example; but none should be allowed to offer Bengali for the M.A. who did not take up Sanskrit as one of his subjects in the B.A. examination.

DE, SUSHIL KUMAR.

In answer to this question, I shall confine myself to one of the vernaculars, *viz.*, Bengali, on which alone I am competent to speak.

Sir William Hunter, one of our vice-chancellors, said in 1886 that our vernaculars had no literature to speak of; but the recent efforts of individual scholars, as well as of learned assemblies like the *Bangiya Sahitya Parishad*, devoted entirely to the study of and research in Bengali, have, in a great measure, corrected and disproved this hasty estimate. Mahamahopadhyaya Haraprasad Shastri in an original and erudite paper on the vernacular literature of Bengal first brought to light in 1891 the names of as many as 150 forgotten writers of ancient Bengal whose works exist not in inaccessible manuscript, but in print. From that time the earlier efforts of Rajnarain Bose, Gangacharan Sarkar, R. C. Dutt, and the more recent contributions of Dinesh Chandra Sen and Haraprasad Shastri have conclusively proved that, even before Caedmon sang or Bede chronicled, Bengal possessed a marvellous body of literature that attained considerable perfection and had travelled to other countries. Vigorous search for manuscripts within the last three decades, especially that undertaken by the *Sahitya Parishad*, has discovered and brought together no less than 3,000 important manuscripts of olden times. The importance of the study, however, is not notable from the literary point of view; but, as a recent report of the *Sahitya Parishad* says:—"the provinces of Bengal have suddenly been discovered to be rich in treasures that lie hidden from public knowledge and which, when unearthed, will furnish material for filling many a gap in the narrative of the people's social and political history".

Times have changed since Sir William Hunter spoke and the importance of the vernaculars, especially Bengali, is now recognised by the University Regulations. But this recognition, although it has popularised the subject, is not adequate to its increasing importance. Representations have been made before the University authorities demanding a systematic study of, and examination in, the vernaculars and urging that we should no longer be satisfied with mere "models of style and character" to which the University recommendations are now limited. There was a time when the richness and capabilities of the literature were yet unknown and when the Anglo-Indian contagion affected the so-called "Young Bengal" and beat vainly against the study of the vernaculars, but if the tide is now decisively turning and the richness and vast promise of the vernacular literature is beyond question and if such study is avowedly one of the foremost objects of our University Regulations to promote, it is time indeed for insisting upon larger University recognition of the hitherto neglected cause of the vernaculars.

One of the unavoidable consequences of the non-recognition of the vernaculars by the University has been that students are never taught to write, speak, or think correctly and fluently in their mother tongue and are, consequently, driven, through an anomalous necessity, to the laborious acquisition of a foreign tongue in which all their studies are conducted. I have elsewhere pointed out the immense amount of intellectual wastage which

DE, SUSHIL KUMAR—*contd.*

this system entails, and which leads to unavoidable weakness in other directions. If, on the other hand, the study of the vernaculars is encouraged, and facilities are afforded for its further expansion, we shall get, in a very short time, gratifying results in the development of educational and general literature and commendable text-books to supersede or supplement the existing text-books in a foreign language. Moreover, the amount of time and energy which is partially wasted over the acquisition of English may be profitably directed towards the acquirement of other branches of knowledge. Our system of education has been alien and denationalised : while every such system, if it is to be sound, ought to imply the encouragement and utilisation of the national tongue as one of its basic principles.

What has been said above will, it is hoped, abundantly make clear that it is not only eminently feasible and desirable, but also imperatively necessary, that this University should no longer confine its attention exclusively to Western literature, but that it should also take in hand, promote, and develope the teaching of the vernaculars of the country.

External conditions are favourable. The tendency towards vernacular—writing and teaching in vernacular—is steadily increasing. University recognition will further promote and expand this tendency. The objection that there are no suitable text-books can only be advanced by misinformed, ill-advised, and short-sighted critics ; and there is absolutely no need for the ignorant apprehension that the standard would be too low and easy.

In order to give material shape to any recognition which the University may consider proper to extend to the teaching of Bengali I propose that Bengali should be made one of the alternative subjects in the matriculation, I.A., and B.A. examinations (both pass and honours). Instead of the existing compulsory Bengali paper in all these examinations, in which only some books are recommended as models of style, and in which only a general paper, more or less, on essay writing and composition is set, I would propose that the paper should be properly reconstituted and a thorough and systematic study of the subject be recommended, consisting of several papers distributed over the history of Bengali literature, Bengali philology, drama, prose and poetry texts, comparative literature, and essay. I submit an appendix setting forth a tentative scheme of studies in the light of the proposal made above.

There may be apparent difficulties in the way which must not be overlooked and must be overcome should the University find it convenient to accept such courses of studies. Some of the most important and valuable works are still inaccessible and exist in a manuscript form ; editions of some of the printed works, again, are scarce and difficult to obtain ; some works, again, have not yet been properly and critically edited. Some excellent selections from Bengali literature have been published—yet much work remains to be done in this direction. If a systematic and critical study is encouraged, no doubt, workers in the field will not be found wanting : but, at the same time, the University shall have to undertake some part of this work. If necessary, it may obtain assistance from learned bodies like the *Sahitya Parishad* and other societies existing in the country for the study and encouragement of Bengali. But, even with the materials and resources now at our disposal, we can, as the tentative appendix submitted by me will amply demonstrate, make a tolerably good, though modest, beginning.

I cannot conclude this perfunctory statement of my views on the subject without referring to the possibilities of research work in this direction. In spite of the fact that serious investigation in this neglected field has often been considered to be a thankless task workers are numerous in this field and the quality and quantity of their work have amply proved how eminently fruitful this untrodden field of research must be. Not to speak of the researches of specialists like Mahamahopadhyaya Haraprasad Shastri, Dinesh Chandra Sen, Basantaranjan Ray, Bijay Chandra Majumdar, Ramendra Sundar Trivedi, and others, whose contributions have vastly enriched and paved the way for fruitful work in this direction, I may be allowed to point out that only this year two theses, one on Bengali literature and the other on Bengali phonology, for the Premchand Roychand Studentship, were considered by competent examiners to have reached a very high standard of excellence and, of these, one at least was lucky enough, in the midst of an unusually stiff competition, to capture the much coveted scholarship and thus establish the importance of Bengali as a highly productive field of research. The University, again, on

another occasion in 1915, was compelled to recognise the claims of the vernacular and bestow the Griffith Memorial Prize for original research on a thesis relating to Bengali literature. A very learned thesis, again, on the origin of the Bengali alphabet was the recipient of the Jubilee Research Prize for 1915, and this monograph is being published by the University. This prize was for a second time bestowed this year on a paper on Bengali philology. With these two or three recent instances in point the University should not be slow to extend its generous recognition to the demands on, and necessity for, research work in this hitherto neglected field and to make adequate provision for it. In this direction it may get material assistance from the *Sahitya Parishad* which, with its unique collection of Bengali books and manuscripts, its museum, its lecture-hall, its journal, its numerous branches all over the country, and, above all, its intimate connection with the literary and scientific men of Bengal, most of whom are on the roll of its members, will be in a position to render very valuable aid to the University.

APPENDIX.

PROPOSED SCHEME FOR THE STUDY OF BENGALI.

Matriculation.

Paper I.—Easy selections from old and middle Bengali texts.
Paper II.—Modern Bengali texts, including essay.

Intermediate Examination in Arts.

Paper I.—Prose—Middle and modern Bengali texts, including selections.
Paper II.—Poetry—Old, middle, and modern Bengali texts, including selections.
Paper III.—History of Bengali literature (rudiments) and essay.

Bachelor of Arts (Pass).

Paper I.—History of Bengali literature, including elements of Bengali philology.
Paper II.—Old Bengali texts.
Paper III.—Middle and modern Bengali texts.

Bachelor of Arts (Honours).

Paper I.—History of Bengali literature.
Paper II.—Bengali philology, with special reference to languages of Indo-Aryan group
Paper III.—Old Bengali texts—Buddhistic.
Paper IV.—Old Bengali texts—Non-Buddhistic.
Paper V.—Middle Bengali texts.
Paper VI.—(i) Special movement in, or type of, Bengali literature ; or
(ii) Writings of a prescribed author.
Paper VII.—Comparative literature—Indian and European.
Paper VIII.—Essay.

Master of Arts.

Paper I.—(*a*) History of Bengali literature in special.
(*b*) History of Indo-Aryan literature in general.
Paper II.—Essay (for philological subjects, at the option of the candidate).
Paper III.—Old Bengali texts.
Paper IV.—Middle Bengali texts.

(Language Group.)

Paper V.—Sanskrit texts, grammar, elements of rhetoric, and poetics.
Paper VI.—General knowledge of Prakrit and Prakrit grammar.

DE, SUSHIL KUMAR—*contd.*

Paper VII.—(*a*) Indo-Aryan philology—Aryan speeches—primitive Aryan—Vedic—Non-Aryan linguistics and the Aryan speech in India.
(*b*) History of the Bengali language.

Paper VIII.—Comparative grammar of Vedic, Prakrit, and Bengali: phonology, morphology, syntax, metrics, Old Indian palæography, and Bengali alphabet.

(Literature Group.)

Paper V.—Comparative literature—Indian, Islamic, European.
Paper VI—History of the Bengali language (as in paper VII—language group).
Paper VII.—A movement or period in Old Bengali literature.
Paper VIII.—Modern Bengali literature—texts (prose, poetry, or drama)—or a movement.

(This scheme for the M.A., which has my full approval, has been drawn up by Professor Suniti Kumar Chatterji, University Lecturer in English, and has been inserted here at his request.)

N.B.—In paper V, instead of "Sanskrit Text" I should like to insert "Elementary Knowledge of Sanskrit" up to the B. A. pass standard.

List of Old Bengali standard works edited and published.

(This list does not pretend to be exhaustive, but it enumerates all the important books and their easily accessible editions. In drawing up this list, and the foregoing scheme, I have consulted and received much help from Professor Suniti Kumar Chatterji, University Lecturer in English, Babu Basanta Ranjan Roy, Keeper of Manuscripts in the *Sahitya Parishad*, and other persons qualified to express opinions on this topic. The following list in particular is mainly the work of Babu Basanta Ranjan Roy.)

I. From the earliest time to 1400 A.D.

1. Baudha Gān O Dohā (Vangiya Sahitya Parishat).
2. Mayanāmatir Gān (Dacca Sahitya Parishat).
3. Śrī Kṛṣṇa Kīrtana by Caṇḍidāsa (Vangiya Sahitya Parishat).
4. Padāvali by Caṇḍidāsa (Vangiya Sahitya Parishat and other editions).
5. Padāvali by Vidyāpati (Vangiya Sahitya Parishat and other editions).
6. Rāmāyaṇa by Kṛttibāsa (Bangabasi and also a part edited by Vangiya Sahitya Parishat).

II. 1500 A.D.

7. Padmāpuraṇa by Vijaya Gupta (Ed. Tara Prasanna Ghosh and others).
8. Mahābhārata by Vijaya Paṇḍita (Vangiya Sahitya Parishat).
9. Mahābhārata by Śrī Karaṇa Nandī (Vangiya Sahitya Parishat).
10. Sri Kṛṣṇa Vijaya by Gunarāja Khān (Ed. K. N. Dutt and other editions).

III. 1600 A.D.

11. Mīnacetana by Śyāmadāsa (Dacca Sahitya Parishat).
12. Govinda Candra Gīta by Durlabha Mallika (Ed. Sib Chandra Sil).
13. Kaḍacā of Gobindadāsa (Sanskrit Press Depositary).
14. Caitanya Maṅgala by Jayānanda (Vangiya Sahitya Parishat).
15. Caitanya Bhāgavata by Bṛndābanadāsa (Ed. Atul Krishna Goswami, Amrita Bazar Patrika Office and other editions).
16. Caitanya Maṅgala by Locana Dāsa (Ed. Atul Krishna Goswami).
17. Prema Vilāsa by Nityānanda Dāsa (Ed. Ramnarayan Vidyaratna).
18. Advaita Prakāśa by Iśāṇa Nāgara (Amrita Bazar Patrika Office).
19. Caṇḍī of Kavikaṅkaṇa (Ed. Akshya Chandra Sarkar, Vangabasi, and other editions).
20. Padmāpurāṇa by Vaṅśīdāsa (Bhattacharya and Sons).

DE, SUSIL KUMAR—*contd.*

21. Gaṅgāmaṅgala by Mādhavāchārya (Vangiya Sahitya Parishat).
22. Mahābhārata by Kāśīrāmdāsa (Ed. Serampore Press and Vangabasi).
23. Dharmamaṅgala by Mānik Gāṅguli (Vangiya Sahitya Parishat).
24. Kṛṣnaprematarāṅginī (Vangabasi).
25. Govindalīlāmṛta by Jadunandana Dāsa (Ed. Ramnarayan Vidyaratna).
26. Govindamaṅgala by Duḥkhiśyāmadāsa (Vangabasi).
27. Śrīkṛṣṇa Maṅgala by Mādhavāchārya (Vangabasi).
28. Padābalī by Vāsudeva Ghoṣa (Vangiya Sahitya Parishat).
29. Padābalī by Govindadāsa (Ed. Akshya Chandra Sarkar, Kalidas Nath, and other editions).
30. Padābalī by Gñānadāsa (Ed. Ramani Mohan Mullick and Vangabasi).
31. Padābalī by Balarāma Dāsa (Ed. Ramani Mohan Mullick and Vangabasi).
32. Padābalī by Rāyaśekhara (Ed. Ramani Mohan Mullick and Vangabasi).
33. Vaiṣnava Female and Musulman Writers (Ed. Abdul Karim, Brajasunder Sanyal, and Ramani Mohan Mullick).

IV. 1700 A.D.

34. Durgāmaṅgala by Bhavānī Dāsa (Vangiya Sahitya Parishat).
35. Caṇḍikā Vijaya by Kamalalocana (Rangpur Sahitya Parishat).
36. Jagannāth Maṅgala by Gadādhara Dāsa (Vangabasi).
37. Caitanya Caritāmṛta by Kṛṣnadāsa Kavirāja (Vangabasi and other editions).
38. Narottama Vilāsa by Narahari Cakravartī (Ed. Kalidasa Nath).
39. Braja Parikramā by Narahari Cakravartī (Vangiya Sahitya Parishat).
40. Anurāga Valli by Manoharadāsa (Amrita Bazar Patrika Office and other editions).

V. 1800 A.D.

41. Śivāyana by Rāmeśvara Cakravartī (Vangabasi).
42. Dharmamaṅgala by Ghanarāma (Vangabasi).
43. Rāmarasāyana by Raghunandan Goswāmi (Vangabasi).
44. Vidyāsunder by Rāmprasāda (Vangabasi and other editions).
45. Vidyāsunder by Bhāratacandra (Vangabasi and other editions).
46. Kaśiparikramā by Jayanārāyana (Vangiya Sahitya Parishat).
47. Gangābhaktitaraṅginī by Durgāprasāda.

Selections.

1. Typical Selections from Bengali Literature or Vaṅga Sāhitya Paricaya, 2 vols., by Dinesh Chandra Sen.
2. Padakalpataru (Ed. Satish Chandra Ray), 3 vols.
   Padakalpataru, re-edited by Satish Chandra Ray (Vangiya Sahitya Parishat).
   Padakalpataru (Amrita Bazar Patrika).
3. Padāmṛtasamudra by Rādhāmohon Thākur (Ed. Ramnarayan Vidyaratna).
4. Gaurapadataraṅginī by Jagadvandhu Bhadra (Vangiya Sahitya Parishat).
5. Prācīnakāvyasaṁgraha (Ed. Akshya Chandra Sarkar).
6. Selections from Vaiṣnava Poets (Ed. Rabindra Nath Tagore, Vangabasi, etc.)
7. Prītigīti by Abinash Chandra Ghosh.

Books on the History of Bengali Literature.

1. Rājnārāyan Bose. Bāṅgālābhāśā O Sāhitya Viśayak Vaktṛtā.
2. R. C. Dutt. Literature of Bengal.
3. Rāmgati Nāyaratna. Baṅgabhāśā O Sāhitya Viśayak Prastāva.
4. Dinesh Chandra Sen. History of Bengali Literature. Baṅgabhaśa O Sāhitya. Vaiṣnava Literature of Bengal. Caitanya and his Followers.
5. Article on Bengali Literature in Viśvakoṣa.
6. Articles in the Sāhitya Parishat Patrikā and other journals.
7. Sushil Kumar De. Early European Writers in Bengali. (Approved by the University for Griffith Memorial Prize, 1915.)

DE, SUSHIL KUMAR—*contd.*—DEY, BARODA PROSAUD—DEY, N. N.—D'SOUZA, P. G. —DUNNICLIFF, HORACE B.

Bengali Philology.

1. Grierson. Linguistic Survey. Bengali Group. (Contains Bibliography.)
2. Grierson. Maithili Grammar.
3. Articles by J. Anderson and others.
4. Articles in the Sāhitya Parishat Patrikā, etc.
5. Śabdatatva by Sir Rabindra Nath Tagore.
6. Beames. Comparative Grammar of Indian Languages.
7. Hoernle. Comparative Grammar of Indian Languages.
8. Jogesh Chandra Raya. Vāṅgālā Vyākarana.
9. Articles published by Rabindra Nath Tagore.
10. Śabdakathā by Ramendra Sunder Trivedi.
11. Suniti Kumar Chatterji. Bengali Phonetics. (Approved by the University for Premchand Roychand Studentship, 1917.)
12. Suniti Kumar Chatterji. Bengali Dialects. (Approved by the University for Jubilee Research Prize, 1917.)
13. Rakhaldas Banerji. Origin and Development of Bengali Alphabet. (Jubilee Research Prize, 1915.)

DEY, BARODA PROSAUD.

The University has just touched the fringe of the study of the vernaculars of the presidency, and much remains to be done. Formation of text-book committees for the purpose of preparing proper text books seems to be the first stage of the improvement.

DEY, N. N.

The vernacular should be a full subject all throughout a candidate's course up to a degree and he must be obliged to study it fully and critically.

Meritorius original works in the vernaculars ought to be accepted as theses for the highest degrees.

D'SOUZA, P. G.

The study of science through the vernaculars is more important at present than the scientific study of the vernaculars. It is mainly because the vernaculars have been relegated to a secondary position from the lowest rungs of education that the development of vernacular literature has been slow. Scientific study of the vernaculars and other improvements will follow as a natural consequence as soon as the vernaculars receive due recognition.

DUNNICLIFF, HORACE B.

In the study of certain subjects, *e.g.*, botany, medicine, etc., a knowledge of the vernaculars is most important, and I do not consider that it is justifiable to attempt to try to replace vernacular names by English ones. The doctor has to attend to his duties among the inhabitants of India and it should be his duty—Englishman or Indian though he may be—to know the Indian names for diseases as well as the English ones. Similarly, the forest officer must know the Indian names for plants recognised among English botanists by other names. In the case of chemistry the names of Indian minerals, etc., should be learned by those interested. I consider that, in the case of chemistry, English as the sole medium of language (after the matriculation) presents facilities, rather than difficulties. It would be very difficult to deliver any but the most elementary lecture in vernacular. One would be constantly faced with the necessity for using words, formulæ, equations, etc., for which there is no equivalent in vernacular. At the same time, I strongly advocate the teaching of science in schools in vernacular.

DUTT, REBATI RAMAN—DUTTA, PROMODE CHANDRA—DUTTA, RABINDRA MOHAN—GANGULI, SURENDRA MOHAN.

DUTT, REBATI RAMAN.

Vernacular text-books are neither taught nor studied at present with anything like eagerness or enthusiasm. Many colleges do not make any real provision for the vernacular teacher. Bengali prose and Bengali poetry do not lack in high sentiments and nobility of thought, beauty of expression, or joyousness of flow and I see no reason why they should not be studied as rigorously as English literature. The University should select two or three text books and hold rigorous examinations thereon, and students will take at once to the careful study of our vernaculars.

DUTTA, PROMODE CHANDRA.

The M.A. in vernacular might be instituted. Every candidate would have to study the general principles of philology and their application to the Aryan vernaculars of India.

Every student should know one of these thoroughly and the rest tolerably.

Intermediate and bachelor courses in Bengali should be regularly taught in class.

DUTTA, RABINDRA MOHAN.

The University should do more than is now done to encourage the scientific study of the vernaculars of the Presidency.

The changes I would advocate are :—

(*a*) That for the matriculation examination and for the first University examination (intermediate) works of standard authors should be studied as text-books; ancient authors should be studied side by side with modern writers

(*b*) The general history of the vernacular literature and language should be a part of the course for the degree examination, whereas another part of the same course should be a general acquaintance with the works of the best literary writers. The study of the vernacular course should be made compulsory in all stages of the University and pre-University courses before the degree examination in arts. Science students may be exempted from studying the vernacular as a compulsory subject after the intermediate examination.

(*c*) Vernaculars that are fairly advanced, like modern Bengali, should be made the subject matter of independent study for the M.A. degree examination. The course for the M.A. examination will include more extensive and critical study of ancient and modern literary writings, and more detailed knowledge of the history, of the language and literature, than in any former stage of the University course. The works of particular authors, both in prose and poetry, and the products of our particular movement, may be also made subjects of specialised study. In short, the vernacular course for the M.A. examination may be prescribed after the model of the English course for the M.A. examination under the existing system.

GANGULI, SURENDRA MOHAN.

The University should encourage the scientific study of the vernaculars more than is now done by insisting upon a thorough study of the details with reference to the works of standard authors of various ages. At present, the University examinations require only a general knowledge of the vernaculars, and the arrangement for teaching the vernaculars in colleges is not at all satisfactory. Definite steps should be taken for teaching the subject in colleges, and the examination should include general questions on the text prescribed.

GEDDES, PATRICK—GHOSA, PRATAPCANDRA—GHOSH, BIMAL CHANDRA—GHOSH, DEVAPRASAD—GHOSH, Rai HARI NATH, Bahadur.

GEDDES, PATRICK.

Certainly; as the son of a Gaelic-speaking highlander of the discouraged generation which did not teach its children, I have been powerless to initiate my own into my ancestral vernacular. But I have at any rate the sense to welcome their not unsuccessfully doing so for themselves, and have been in every case impressed by the cultural value of their achievement. The essential, of course, is that such study be neither merely "scientific", nor merely "utilitarian", but at once conversational and cultural. *i.e.*, an initiation into the heritage and life of the given people; and this as far as may be also through saga and song.

The Renaissance of Danish agriculture and general culture together, since the defeat and spoliation of 1864, has notably been through this type of education; and in the more recent, but thoroughly kindred, renewals in Ireland, the same association is manifest. But, if this illustration seem controversial, since complicated with current political feeling, the indebtedness of Scotland to "Ossian" and the balladists, to Burns and Scott, is familiar and obvious. Without the impulses in the vernaculars how much poorer and less productive would have been our universities, even in their studies apparently most unrelated to these. And how much richer might they be were they more awakened to utilise the educative resources latent in the vernaculars of their students. The very progressive Welsh University colleges are also becoming conscious of this.

GHOSA, PRATAPCANDRA.

I do not think that more encouragement is needed for the scientific study of the vernaculars. Education is a thing independent of nationality.

GHOSH, BIMAL CHANDRA.

The scientific study of the vernaculars should be promoted by the University. Something has been already done by giving the vernaculars a place in the curriculum up to the B. A. standard. The next step should be the inclusion of Bengali as a language and literature (a "second language") at the B.A. examination, and as a language and literature—a subject by itself at the M.A. examination. *Vaishnava* literature and *Vaishnava* philosophy may be included as an optional section under Sanskritic studies.

GHOSH, DEVAPRASAD.

Certainly.

Bengali has been introduced at present as a compulsory subject up to the B.A. examination; but the subject is not virtually taught at all; there are no regular professors of Bengali in colleges; even attendance is not compulsory; in fact, it has not yet grown out of the Cinderella stage.

This ought not to be so. And, further, there ought to be an M.A. degree in Bengali. Tamil and Telugu are taught up to the M.A. standard in the Madras University, and there is no reason why Bengali should not have a like place in the University of Calcutta.

GHOSH, Rai HARI NATH, Bahadur.

Yes; it might do more endowing special prizes and scholarships.

GHOSH, Dr. JAJNESWAR—GHOSH, JNANCHANDRA—GHOSH, Rai Bahadur NISI KANTA—GOSWAMI, BHAGABAT KUMAR, Sastri—GOSWAMI, Rai Sahib BIDHUBHUSAN.

GHOSH, Dr. JAJNESWAR.

Please see my answer to question 11.

I would also suggest that the examinations in Bengali should be stiffer than they are now, and that they should test not merely the candidate's training in composition, but also his acquaintance with the literature of his country.

For reasons given above I consider it desirable that English should continue to be for some time to come the medium of instruction and of examination up to the B.A. standard. But it may be possible to include Bengali among the subjects for the M.A. examination if the syllabus comprises, besides literature in the narrower sense of the term, the history of Bengali literature, the philology of the Bengali tongue, and the histories of the religious movements and social changes in the sixteenth and nineteenth centuries. If such an addition to the number of subjects is approved I would admit to the examination and to the degree those only who have a fair knowledge of Sanskrit language and literature.

GHOSH, JNANCHANDRA.

I think the University should do more than is now done to encourage the study of the vernaculars of the presidency. The study of the vernaculars should be made compulsory at all stages up to the B.A. and for the M. A. a philological study of the vernaculars should be provided for.

GHOSH, Rai Bahadur NISI KANTA.

The vernaculars of the presidency have not yet reached that stage of growth and perfection which makes the provision of facilities for scientific study necessary; but in their present stage of development further encouragement for their study is certainly desirable. For this purpose it may be suggested that the vernaculars of the presidency should be read in the University course as literature, and not merely as secondary language.

GOSWAMI, BHAGABAT KUMAR, Sastri.

Certainly; all the facilities for advanced work should be provided for. There should be well-equipped libraries of vernacular works, arrangements for the search of, and, where necessary, for the publication of, old vernacular works, preparation and publication of useful advanced literature in all departments, under able supervision and guidance, with the help of qualified workers.

GOSWAMI, Rai Sahib BIDHUBHUSAN.

Yes; the vernaculars of the presidency should be more carefully and thoroughly studied. In the higher University examinations a philological study of the vernaculars should be insisted upon. Students preparing for the higher examinations must have a knowledge of the history, growth, and development of their vernaculars, the causes that helped their development, and a short survey of their literature. To effect this end, competent teachers of the vernaculars should be employed in schools and collegess and more time should be devoted to the teaching of the vernaculars than is done at present.

GOSWAMY, HARIDAS—GUHA, JATINDRA CHANDRA—GUHA, JITES CHANDRA—GUHA, RAJANIKANTA—GUPTA, AMRITA LAL—GUPTA, BIPIN BEHARI.

GOSWAMY, HARIDAS.

Yes.

Honours courses and M.A. courses in the vernaculars of the presidency should be introduced.

GUHA, JATINDRA CHANDRA.

The University should give greater encouragement to the study of the vernaculars of the province than at present. These are at present very much neglected among the educated people of the country and, to a certain extent, looked down upon. These are being gradually ousted by English even in our private, social, and business life. The contention of many in favour of this preference of English is that until we can make it the *lingua franca* of India we cannot advance far towards establishing national and political unity in the country. But I think that if English is taught as a compulsory subject in our schools and colleges this object may well be attained. It ought to be the duty of every university to give special attention to the improvement of the predominant vernacular spoken within its jurisdiction, especially if that vernacular possesses great potentialities for development. The Calcutta University owes this duty to Bengali more than to any other vernacular. A scientific study of the language is necessary to establish a pure and literary standard of it. It may appoint special men for this purpose and publish the results of their research in the form of text-books which may be introduced into the college classes. Besides this, Bengali literature should be better represented in the University curricula than at present.

GUHA, JITES CHANDRA.

English, I think, ought to be the medium of instruction in the post-matriculation classes. In the school classes Bengali should be made the medium, instead of English as at present, though English must always remain a compulsory subject in all the classes. Boys should be required to answer questions in all subjects, except English in Bengali. We think in Bengali, however proficient we may be in English, and so English is a handicap to the development of our powers of thinking and writing.

GUHA, RAJANIKANTA.

Yes, a faculty of oriental studies should be instituted. Facilities (such as a well-equipped library) should be afforded by the University for the study of the vernaculars of the presidency. Scholarships and prizes should be founded, and certificates and diplomas granted for meritorious work.

GUPTA, AMRITA LAL.

For the greater encouragement of the scientific study of the vernaculars candidates at every stage before graduation should be required to have not only a general knowledge of the vernaculars, but to make a special study of some standard works or authors, and provisions ought to be made in the examination system for a special test thereof. The vernacular should be recognised and encouraged as a language for prize essays and post-graduate distinctions.

GUPTA, BIPIN BEHARI.

The University has merely condescended to recognise that there is such a thing as Bengali literature, relegating it to a minor position; but it has not yet made any

GUPTA, BIPIN BEHARI—*contd.*—GUPTA, SATYENDRANATH—GUPTA, UMES CHANDRA —HALDAR, UMES CHANDRA—HAQ, Khan Sahib Maulvi Kazi ZAHIRAL.

serious attempt to encourage the scientific study of the Bengali language. The dialects are so very various in the several dictricts, and in the sub-divisions of the same district; the phonetic variations are so arresting; the remarkable uniformity of the written language in the midst of the diverse spoken dialects, owing to the influence of the great Pandits of the Sanskrit College of Calcutta in the mid-Victorian period on the moulding of literary style in Bengali, is so patent that one wonders why no attempt has hitherto been made to make a scientific study of the whole subject. Hindi, Urdu, Sanskrit, and other elements have entered into the composition of the Bengali language. It has had a long period of historic growth; and yet it has been ignored. Bengali poetry has had the most astonishing development, but the University knows nothing of it. It has its root in the past, intimately connected with the cultural development of the people; but students are shunted off to Anglo-Saxondom where they are to explore into the hidden treasures of the Saxon dialects. Bengali prose selections are placed before our boys as models of style only. Thus, Bengali literature is the neglected Cinderella of the Alma Mater. This problem must be seriously tackled or the University will never be able to come into vital touch with the people of the soil. As it is, the University is an exotic plant. It is time that the University should have a wholly changed outlook. Chairs for the Bengali language and literature should be founded, with no brand of inferiority attached to them. Cinderella must come into her own.

GUPTA, SATYENDRANATH.

The following answer has reference to secondary education only.

There is no scientific study now. This is necessary. Text-books in the vernaculars should be prescribed for a critical study of the language.

GUPTA, UMESH CHANDRA.

Yes; a special subject of compulsory examination in Bengali and other Indian languages ought to be introduced into the I.A., B. A., and M.A. examinations, and this ought to be compulsory even in the I.Sc., B.Sc., and M.Sc. examinations and the highest standard books in those languages ought to be the text-books.

HALDAR, UMES CHANDRA.

Yes; the vernaculars should be prescribed as literature for the different examinations of the University. Research scholarships should also be instituted.

HAQ, Khan Sahib Maulvi KAZI ZAHIRAL.

Before answering this question I should like to know what are actually the vernaculars of Bengal. By the way in which the so-called " Bengali " writers have commenced a " purification " of the Bengali language they have already created two Bengali languages. Until, and unless, a practicable compromise is effected by enriching the Bengali language by a free introduction and retention of Sanskrit, Arabic, and Persian words equally, where necessary, it is useless to consider the question at all. The Mussulmans forms the majority of the Bengali population. Even English is formed of the languages of the Angles, Saxons, and Jutes and is being enriched with words and phrases taken in from other languages.

HARLEY, A. H.—HAZRA, JOGENDRA NATH—HOSSAIN, WAHED—HUNTER, MARK.

HARLEY, A. H.

I consider that the attention devoted to the culture of the vernaculars is not sufficient. Urdu, for instance, is adapted in extraordinary measure as a medium of instruction. Composite in origin, it is even now as ready to adopt foreign words when necessary. The most has not been made of its classical literature, which some competent judges have considered worthy to be regarded as a "second language" in this province. I am prepared to recommend this much, that if the group system of languages be introduced into the University course a student should be permitted to attach Urdu language and literature to his Semitic group. But, ordinarily, the vernacular should receive more attention than at present and its study should be continued up to the proposed entrance stage.

HAZRA, JOGENDRA NATH.

Yes; the University should do something more for the encouragement of the scientific study of the vernaculars. There should be permanent chairs for research and lectures on the vernaculars. Arrangements should be made for the delivery of lectures on the vernaculars at stated periods.

There are some eminent Bengali professors who may occasionally be asked to deliver special lectures in Bengali in their respective subjects. There may be degrees instituted for proficiency in the vernaculars.

HOSSAIN, WAHED.

I do not think that the University has done anything to encourage the scientific study of the vernaculars of the presidency. It has not, up till now, even recognised any vernacular as the second language for any examination. The credit of developing the vernacular of the presidency—rather of the country—to an extraordinary degree is mainly due to individual efforts. The University has neglected them altogether. It is very desirable and expedient that the University should take proper steps to encourage their scientific study in all seriousness. I would, therefore, make the following suggestions:—

(*a*) That the University should recognise them as a second language and raise them to the status of a classical language.

(*b*) That they should be included in the subjects for post-graduate study.

(*c*) That proper provision should be made for their study in all schools and colleges affiliated to the University. This may be done by imposing a condition upon the managing committees of these institutions to the effect that, unless they make proper provision for teaching the vernaculars, their affiliation will be withheld.

It may be mentioned here that there are two chief vernaculars prevailing in this presidency—Bengali and Urdu. There is ample provision for Bengali in all schools and colleges, but there is hardly any provision for Urdu in the majority of them. In some Government and aided institutions (Madrassahs excepted) there are only one or two teachers, or *Maulvis* as they are called, for all the classes, which they can hardly teach satisfactorily. This is a mere apology for teaching Urdu. But many of these institutions have made no provision although there has been a great demand for it in recent years.

HUNTER, MARK.

We have made, in the University of Madras, several attempts to encourage the scientific study of Indian languages, in all of which I happen to have been rather

closely associated; and I am bound to confees that the degree of success hitherto attained is not such as to encourage further effort.

We instituted courses and examinations for titles in oriental learning expressly designed to bring modern critical methods in language study within the reach of Pandits. So far as linguistic science is concerned the thing has never been other than a transparent sham, and a committee of the senate has now resolved to recommend that the titles courses be hereafter recognised as—practically—Pandit courses pure and simple.

We utilised an annual recurring grant from the Government of India for 'the development of the study upon modern lines of the languages of India, especially of South India.' To this end we instituted a professorship of comparative philology with special reference to Sanskrit, and we appointed a professor; we instituted readerships in Dravidian philology, and appointed five readers who were to conduct researches under the supervision of the professor of comparative philology, and to receive each a salary of Rs. 250 a month. The readerships lasted for three years, and then, to everyone's relief, were abolished. One of the readers produced a body of sound pioneer work in Dravidian philology in the strict sense of the term; another, I understand, made some interesting investigations into old Telugu literature; but, on the whole, the readerships have been a melancholy failure, and have been the source and occasion of some of the most discrebitable incidents—including a law-suit—in the history of the University.

We revised the pass B.A. optional courses in languages other than English in order to give critical methods in the undergraduate study of Indian languages at least a chance. These courses are far from popular, and I should be rather surprised to learn that much in the way of scientific study has been either accomplished or attempted.

A dictionary of Tamil has been for some years in preparation under the authority of the University, though for the original scheme Government, and not the University, was responsible. The editor is an industrious and methodical missionary, who is assisted by Pandits. They have collected a mass of material, but are innocent of critical scholarship. This has long been perceived by members of the syndicate, and a bulky file of notes and memoranda witness to their misgivings. At last the syndicate has resolved that the design cannot go forward on the present basis, and a new scheme has been formulated under which, amongst other things, it is provided that the professor of comparative philology should be associated in the work as joint editor. The member of the syndicate chiefly responsible for the new scheme has some hope that it may prove successful, but his faith is very weak.

The fact is that linguistic science, as applied to Indian languages, is a Western exotic which at present cannot be made to grow in South Indian soil. A very few Indians who have learnt from European teachers something of philology, as applied to non-Indian languages, are enthusiastic, but these few are without authority with their compatriots. Indians, generally, are either indifferent or definitely hostile to the intrusion of modern science in the ancient domain—except in the form of make-believe, of which they can stand any quantity.

So far as philology in general is concerned honest work has been done in connection with the honours undergraduate course in English language and literature, and this course includes, for those mainly interested in linguistics, a special optional course, to be taken as an alternative to a special period of English literature, in Indo-Germanic philology with special reference to Sanskrit. This little course is chiefly conducted by the University professor of comparative philology, who also lectures on Indo-Germanic philology to joint classes composed of undergraduates seeking honours in English and Sanskrit. Perhaps in these, and similar, ways the languages of South India may eventually be indirectly reached; but I should shrink from any further participation in direct attempts.

HUQ, The Hon'ble Maulvi A. K. FUZLUL.

The University should not be quite open to do more than is now done to encourage the scientific study of the vernaculars of the presidency. I believe that a good deal is being sacrificed to secure an undue recognition of the claims of the vernaculars. There can be no doubt that the vernaculars should be encouraged but, after a certain stage,

the University should not be called upon to divide its attention between the commendation of the claims of the vernaculars and other subjects of study in the University. With the spread of education on modern lines educated Indians will, naturally, exert themselves for every possible development of the vernaculars of the country.

HUQUE, M. AZIZUL.

The translation of scientific books should be undertaken and authors may, under certain tests and rules, be helped in publishing their works in the University press.

HUQUE, KAZI IMDADUL.

What the University is now doing to encourage the scientific study of the vernaculars does not seem to be adequate. For example, there is still a leaning towards Sanskritised Bengali which needs must be overcome. A language is not scientifically developable unless, and until, the difference between its written and spoken forms is reduced to a minimum. At present, this difference is very great in Bengali. The University ought to encourage a development of Bengali in this direction.

HYDARI, M. A. N.

I think if the proposal I have made in answer to question 11 is accepted a scientific study of the vernaculars of the presidency will be sufficiently and adequately provided for. Otherwise, an essay in the vernacular should be one of the compulsory papers in all arts examinations.

IBRAHIM, Khan Bahadur MUHAMMAD.

Vernacular text-books, with history of literature and language, should be prescribed and regularly taught up to the intermediate standard, and the allotment of marks should be modified as follows:—

One essay	20
One translation from English into vernacular	20
Text-book	40
History of language and literature (for intermediate candidates) or Grammar and composition (for matriculation candidates)	20
	100

IMAM, The Hon'ble Justice Sir ALI.

The scientific study of the vernaculars may be taken up by the universities in Upper India. I understand that the Bombay University has already taken up the subject for some time on account of the powerful advocacy of the claims of the Mahratti language by the late Justice Ranade. In Upper India, Urdu, Hindi, and Bengali may be similarly taken up. The Calcutta University has recently founded a chair for Bengali, and the lectures of Mr. Dinesh Chandra Sen on the growth and the development of the Bengali language have done much to promote this study. Similar chairs for Hindi and

Urdu may very well be founded. Indigenous institutions with this object in view have already been started. The Hindi *Sahitya Sammilan* and the Urdu Literary Conference are movements in this direction. If taken in hand by the universities, and carried on systematically, the promotion of Hindi and Urdu literature would be greatly facilitated and the movement kept within legitimate bounds. And, given the lead and direction—which they do not at present possess—these lectures would then attract not merely professional litterateurs, but also the young student whose enthusiasm and earnestness would give remarkable impetus to the promotion of these studies. It is needless to say that to capture and to regulate the enthusiasm of our youth, upon whom the future of the community depends for this laudable and necessary study, is one of the necessities of the times.

IRONS, Miss M. V.

More could be done in this direction. A vernacular should be taught in all Anglo-Indian schools of the presidency.

A school of languages should be initiated in Calcutta, under the *ægis* of the University, to promote the scientific study of the better known vernaculars.

ISMAIL, Khan Bahadur MOHAMMAD.

Bengali is the vernacular of this presidency, and is the common property of both Hindus and Muhammadans of this province. The present tendency is to Sanskritise the Bengali language. Any student not studying Sanskrit cannot attain the same degree of efficiency in Bengali that a Sanskrit-knowing student would. Muhammadans have to study either Persian or Arabic. So it is very difficult for them to attain efficiency in Bengali as it is now studied.

I would not advocate its study beyond the matriculation standard if the present tendency of Sanskritising it is not abandoned. If the object be to make students understand it easily I would certainly support its study.

IYER, The Hon'ble Mr. Justice T. V. SESHAGIRI.

I do not think sufficient attention is being paid in Madras to the study of the vernaculars. Three years back I moved a resolution in the senate for affording better facilities for the study of the vernaculars. There was a compromise, and I think the present system is an improvement upon the old one. Still I do not think that the vernaculars are receiving as much attention as they should do in the University curriculum.

JALIL, ABDUL.

Yes; the University should do more than is now done to encourage the scientific study of the vernaculars of the presidency.

(*a*) A beginning should be made in the schools, where the study of the vernaculars should be given more attention and importance and conducted on improved methods. No scheme of making the vernaculars the medium of instruction and examination in schools in the near future and, ultimately, in the colleges, in case the experience of the former so demands, will be successful if the vernaculars are given a secondary place as at present.

(*b*) The Government and the University, by liberal contributions, should encourage the translation of literary and scientific books in English and other foreign languages into the vernaculars.

(*c*) The vernaculars should be optional subjects for a degree course, and provision should be made for their advanced teaching.

KARVE, D. K.—KHAN, ABUL HASHEM—KHAN, MOHOMED HABIBUR RAHMAN—KO, TAW SEIN—LAHIRY, RANOJIT CHANDRA.

KARVE, D. K.

I think the University should do more than is done now to encourage the scientific study of the vernaculars. At present very little is done in this direction In Calcutta the University has a composition paper in the vernacular, but the subject is not taught scientifically in any college. To my mind the vernacular should be recognised as one of the optional subjects for the B.A. and M.A. examinations Then, again, it should be recognised as an alternative subject with the classical language where a classical language is compulsory in the University. At the matriculation examination both the vernacular and the classical should be compulsory Provision should be made for the proper teaching of the vernaculars by the foundation of a chair in each full grade arts college. If the above reforms are brought about the vernaculars would receive the encouragement they deserve at the hands of the University.

KHAN, ABUL HASHEM.

The fostering of the vernaculars should be an important function of the University. It certainly should do more than it now does to encourage their scientific study.

In indicating the quality and nature of the work to be done in the vernaculars—as suggested in my answer under question 9 (ii)—the object of encouraging the comparative study of vernacular dialects and others pertinent to the development of the vernaculars may be kept in view.

KHAN, MOHOMED HABIBUR RAHMAN.

Yes; the University should help the vernaculars by the following means :—

(*a*) Translating books from European languages.
(*b*) Getting original books written.

It should also encourage the other chief vernaculars of the country, such as Urdu, etc., by making it possible for a student to take them up as a subject for the degree examination. In Bengal, where there is a very large Muhammadan population, and where it is the intention of Government to have two universities, I think Bengali should be made the medium of instruction in the Calcutta University and Urdu in that of Dacca.

KO, TAW SEIN.

Yes; the vernaculars, being living languages, were at one time not prescribed above the matriculation examination. Although they are now prescribed their teaching is not so thorough or scientific as that of the dead or classical languages. Special professorships should be created to guide the teaching of these vernaculars, especially in connection with their history, philology, and literature.

LAHIRY, RANOJIT CHANDRA.

For the improvement of the vernaculars the most important thing to be done is to have a sufficient number of books on all subjects, especially the sciences. The University is doing very little in this. Text-books in the vernaculars can only be provided in sufficient number if the medium of instruction is the vernacular.

MAHALANOBIS, PRASANTA CHANDRA—MAHASAI, KUMAR KSHITINDRADEB RAI—MAHTAB, The Hon'ble Sir BIJAY CHAND—MAITRA, AKSHAY KUMAR.

MAHALANOBIS, PRASANTA CHANDRA.

Bengali (and the other chief vernaculars) should certainly be recognised as fit subjects of study for the degree.

An *honours* degree and an M.A. degree in Bengali should also be immediately instituted.

Chairs should certainly be endowed for the scientific study of our vernaculars.

A comparative study of the different dialects is urgently necessary. The grammar of the Bengali languages has not as yet received any attention. Sir Rabindra Nath Tagore has discussed this question elaborately in some of his "Essays on Education" and it is sufficient for me to refer to them.

The study of the folk lore, proverbs, nursery rhymes, etc., of the different districts offers a vast field for research. A comparative study of the many archaic forms still extant in special ceremonies is also necessary.

The study of the language, characteristic phrases, archaic usages, etc., current among the many religious sects is also sure to throw much light on the history of the vernaculars. The literature of the *Joogis* of East Bengal, "Songs of Gorakhnath," *Nath Yogis, Gambheerā, Chadak, Neeipuja*, etc., has not been studied at all.

In addition to a chair for the comparative study of these subjects *travelling scholarships* and research fellowships should be endowed.

These travelling fellows should collect materials in connection with various rites and ceremonies of the different religious sects of Bengal, *e.g.*, the *Bāool, Āool, Darbesh, Kartābhajā, Treenath, Gorā chandi, Kala chandi, Fakeera*, and a host of others.

Investigation into the comparative grammar, etc., of the aboriginal races of Bengal is also necessary. In this connection special provision should be made for the study of the Indo-Chinese dialects of the North-Eastern frontiers of Bengal and also of the Dravidian languages of the south.

MAHASAI, KUMAR KSHITINDRADEB RAI.

In order to encourage the scientific study of the vernaculars of the presidency the utmost the University can do is to make the study of the vernaculars a compulsory subject for examination; the answering of an essay paper only may not be considered sufficient as it is at present.

MAHTAB, The Hon'ble Sir BIJAY CHAND.

I think the present measures are adequate except that a little more encouragement may be given in respect of vernacular study by making it not only the medium of instruction and examination in the lowest classes of schools, but also eliminating English altogether from the subjects of study in these classes and allowing students the option to answer questions in vernacular, as suggested in my answer to question 11.

MAITRA, AKSHAY KUMAR.

The University in Bengal should certainly do all it can to encourage a scientific study of the Bengali language. With this end in view the University should promote research work and utilise its results. A scientific study of the Bengali language involves a critical study of several languages—dead and living. A fair beginning of this study cannot be made before research work is properly started. The materials still lie scattered about; and their collection, preservation, and publication must be undertaken as a part of university work before any good result can be expected.

MAITRA, GOPAL CHANDRA—MAJUMDAR, PANCHANAN—MAJUMDAR, RAMESH CHANDRA—MAJUMDER, NARENDRAKUMAR—MALLIK, Dr. D. N.—MASOOD, Syed ROSS.

MAITRA, GOPAL CHANDRA.

The examination in vernacular at present is only a general knowledge of the language. This should be supplemented by an examination on some vernacular classics appointed as text-books.

MAJUMDAR, PANCHANAN.

Yes; greater importance should be attached to the vernaculars in the B.A. and M.A. examinations both in fixing the courses and in conducting the examinations.

In the I.A. and B.A. examinations though Bengali has found a place in the course of study, yet very little attention is paid to teaching the subject and students are generally left to do unaided what they can in the subject.

MAJUMDAR, RAMESH CHANDRA.

Yes; it should be introduced as a compulsory subject in the degree examination and placed on the same level as Sanskrit, French, or any other second language.

MAJUMDER, NARENDRAKUMAR.

The Calcutta University has introduced the vernaculars of the province in all its arts examinations up to the B. A. examination. But the Indian universities at present practically do nothing for the *scientific* study of the vernaculars. The universities should make adequate arrangements for the teaching of the history, grammar, phonetics, and philology of the vernaculars.

What is more important, the universities ought to make an all-India vernacular (Sanskrit being the basic principle) compulsory for all college students. An all-India script is also necessary. A class of elocution in vernacular, especially the all-India vernacular, should be started.

MALLIK, Dr. D. N.

Yes; the changes that have been proposed recently (vernaculars as regular subjects of examination) will ensure this if it is provided that the tests will be such as to encourage such study.

MASOOD, Syed ROSS.

Yes; the University should help the vernaculars by the following:—

(*a*) Translating books from European languages.

(*b*) Getting original books written.

It should also encourage the other chief vernaculars of the country, such as Urdu, etc., by making it possible for a student to take them up as subjects for the degree examination. In Bengal, where there is a very large Muhammadan population, and where it is the intention of Government to have two universities, I think Bengali should be made the medium of instruction in the Calcutta University and Urdu that of Dacca.

MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN—MITRA, KHAGENDRA N.—MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur—MITRA, RAM CHARAN—MOHAMMAD, Dr. WALI—MUKERJEE, ADHAR CHANDRA—MUKERJEE, BIJOY GOPAL.

MAZUMDAR, The Hon'ble Babu AMVIKA CHARAN.

I am not aware that the University does anything to encourage the scientific study of the vernaculars of the presidency. A few lectures on the history of a language, such as may be gathered from a laborious study of its literature, can hardly contribute to its scientific study. For such a study of the Bengali language there ought to be adequate provision for a sound knowledge of Sanskrit and Prakrit, as well as of grammar and philology.

MITRA, KHAGENDRA N.

The University should do much more than is now done for the advancement of Bengali literature. The study of the literary, grammatical, and philological aspects of Bengali should be encouraged by the University, and that in such a consolidated form as to make it a special subject for degree examinations.

MITRA, The Hon'ble Rai MAHENDRA CHANDRA, Bahadur.

The vernacular should be the compulsory subject of study in all examinations. The history of vernacular literature should be taught and the works of the best ancient and modern authors should be taught. Essay writing and the power of speaking should be encouraged. If possible, experts may be appointed University lecturers from time to time.

MITRA, RAM CHARAN.

Our University ought certainly to encourage the study of the vernaculars. At present most of our graduates cannot write even an ordinary letter in decent Bengali.

MOHAMMAD, Dr. WALI.

The University should certainly encourage the scientific study of the vernaculars. This may be done by having special groups of languages constituting the subjects for a degree examination. The courses of study should be so altered as to enable a student to study the vernaculars along with one or two other subjects. Some vernaculars are already so rich as to provide sufficient material to a student to do M.A. work. A faculty of oriental learning may be created and prove useful.

MUKERJEE, ADHAR CHANDRA.

Certainly; at every stage the study of the structure of the language and of text-books is necessary. Philology of the Indian vernaculars should be one of the subjects for the M.A. examination.

MUKERJEE, BIJOY GOPAL.

A scientific study of the vernaculars is a part of the course for the M. A. examination in comparative philology but it should be compulsory for a candidate whose vernacular is other than English. In order to prepare the ground for this, as well as for other reasons, it is desirable, so far as the study of the vernaculars is concerned, to modify the

course of study for all the examinations up to the B.A. degree. Instead of recommending a large number of books for study only as presenting models of style the University may prescribe some text-books for regular study not only as models of style, but also as part of the literature of the province. For the B.A. examination the course may include a study of the history of the vernacular of the candidate, just as the course in Sanskrit includes a study of the history of Sanskrit literature.

MUKERJEE, RADHAKAMAL.

The University ought to do much more than is now done to encourage the study of the vernaculars.

(*a*) The University should confer degrees in Bengali.
(*b*) A professorship in Bengali language and literature, as well as lectureships, should be instituted.
(*c*) Special encouragement should be given to researches in old Bengali language and literature and in Bengali script and philology.
(*d*) A board of vernacular literature should be organised to direct the production of new works in the vernacular for the B.A. and M.A. standards, and the translations of the most important works on different subjects from different languages.

MUKHERJEE, B.

I do advocate that greater attention should be given to the scientific study of the local vernaculars in the Calcutta University. Before 1906 very little attention was paid to the study of vernaculars in the University and, practically, the study of the vernaculars ended with the school. In 1906, after the new regulations of the University were introduced, a great step forward was taken. A vernacular paper was made compulsory in the I.A., I.Sc., and the B.A. examinations. This was, so far, very good. But the paper which was thus made compulsory at each examination did not at all involve any thorough or deep study of vernacular literature. The paper was only a paper on composition though the syndicate, on the recommendation of the board of studies, recommends a certain number of standard works to be read as models of style. Thus, in the I.A. and the I.Sc. examinations the paper carries 100 marks, which are distributed thus:—

(1) Translation from English into the vernacular . .	40 marks
(2) Questions on composition	20 ,,
(3) Essay	40 ,,

"Candidates", the regulations provide, "shall not be asked to answer any questions on the subject matter of the books recommended, or on the history of vernacular literature".

It is, thus, evident from the above that no textual questions are asked, and that the paper is only a test for translation and composition. No doubt, translation and composition are very good means to test the students' command over the language. Still, a critical and analytical study of the text ought to be encouraged by every means. The same thing is done in the other languages, *e.g.*, in English, in Sanskrit; and there is no reason why we could not adopt the same method of study in the vernacular paper.

It is true we get some improvement in the study of the vernacular paper in the B.A. examination. A small number of standard works is recommended as presenting ideals of character and models of style and the paper, according to the regulations, is a test of composition *and of a general knowledge of the subject matter* of the books recommended. Thus, in the B.A. examination the conditions encourage a deeper study of the text than in the I.A. and the I.Sc. examinations. Still, in my view, this is not enough. A thorough critical and analytical study of the texts is necessary. Besides, the number

and variety of texts, at least for the B.A. examination, should be increased. The vernacular paper in the B.A. examination may be increased thus:—

(1) Prose paper.
(2) Poetry paper.
(3) Essay, composition, and translation.

Each paper to carry 100 marks.

Thus, it will bring the vernacular paper in the B.A. examination in line with the other pass papers in the B.A. examination, each of which consists of three papers carrying 100 marks each. Full scope is given for tests in composition and essay writing by the third paper, while the first two papers will involve critical and analytical study of the texts in both prose and poetry.

The vernacular paper in the I.A. and the I.Sc. examinations may be changed thus:—

(i) Prose and poetry texts—one paper, 50 marks for each—total 100 marks.
(ii) Essay, translation and composition—100 marks.

This will bring the I.A. and I.Sc. vernacular papers in line with the other papers, each of which consists of two papers of 100 marks each.

No doubt, there would be some difficulty in the above scheme. The various vernaculars in the University are:—

Bengali.	Assamese.	Armenian.
Hindi.	Burmese.	Urdu.
Uriya.		

Of these there are some languages which are not sufficiently developed yet (*e.g.*, Uriya or Assamese), and it might be difficult in those cases to get suitable prose and poetry text-books for the different examinations. This might be a real difficulty. This difficulty, however, does not at all arise in some of the other vernaculars (*e.g.*, Bengali), where there can be no difficulty in selecting any number of good and suitable prose and poetry texts. Bengali literature has sufficiently developed within the last half-century so much so that the writings of Bengali writers like Bankim Chandra, Sir Rabindranath, or Vivekananda now find ready readers in Europe and America even. In these cases there would be no difficulty in improving the vernacular paper.

In the other cases, however, where the real difficulty mentioned above arises, it might perhaps be necessary for some years to come to continue with the present system of one paper only until such time when it will be possible to introduce more ambitious courses of three papers.

Further, with the gradual limitation of the territorial jurisdiction of the Calcutta University some of the vernaculars mentioned above will not get sufficient students to go in for them. The new universities at Dacca, Patna, Rangoon, etc., will seriously restrict the territorial jurisdiction of the University, and with it the number of students going in for the different vernaculars. A scientific study of the vernaculars is a very important thing, and ought to be greatly encouraged. It is the language in which the vast majority of the people daily thinks and talks, and the University which wants to be really efficient and, at the same time, really representative of the people cannot afford to neglect it. Without it it would be difficult to produce vernacular books dealing with the different sciences. An attempt is now being made in some quarters to introduce Bengali text-books dealing with the various sciences, *e.g.*, physics, chemistry, economics, zoology, etc. One great difficulty in the way is the want of suitable technical terms in the vernacular languages which can be used to convey the exact meaning of the technical and scientific English terms now used. A scientific study of the vernaculars would do much to help in the work.

MUKHERJI, PANCHANANDAS.

Yes; I would advocate a compulsory graduated course of study of the vernacular language and literature in all stages up to the degree examination. A comparative and historical study of the vernaculars should form a subject of study and instruction in the post-graduate classes.

Murarichand College, Sylhet—NANDI, MATHURA KANTA—NANDY, The Hon'ble Maharajah Sir MANINDRA CHANDRA—NANJUNDAYYA, H. V.—North Bengal Zamindars' Association, Rangpur—PARANJPYE, The Hon'ble Mr. R. P.

Murarichand College, Sylhet.

The University should do more than is now done to encourage the scientific study of the vernaculars.

In the matriculation, the I.A., and the B.A. Bengali should remain compulsory, as now, but provision should be made for compulsory attendance at lectures, and for examination on prescribed books.

Bengali, with philology of the Sanskritic languages, should form a subject for the M.A. examination.

NANDI, MATHURA KANTA.

Yes; the standard of examination in the vernacular should be raised, and questions should be set from the books recommended. The works of standard authors should be prescribed, and the course of studies should be properly graduated. Fewer marks should be allotted to translation work and essay writing.

NANDY, The Hon'ble Maharajah Sir MANINDRA CHANDRA.

The following steps may lead to a scientific study of the vernaculars :—

(*a*) The institution of an M.A. degree in the vernaculars.
(*b*) The organisation of a special board for the vernaculars.
(*c*) Special scholarships and endowments in aid of researches in the vernacular language.

NANJUNDAYYA, H. V.

Make the study of a second language compulsory up to the B.A. This seems to be the case in Bengal and was the case in other universities. We have followed this course in the Mysore University. Composition in vernacular languages should be more largely cultivated, and more serious attention given to the study of literature.

North Bengal Zemindars' Association, Rangpur.

Yes; up to the I.A. standard.

PARANJPYE, The Hon'ble Mr. R. P.

The vernaculars should be always included in the list of languages of study. I would put them as alternatives to other second languages though perhaps it would not be impracticable to continue the study of Sanskrit with that of the other Aryan vernaculars or of Persian with Urdu. In any case, I would insist that the related classical language is known to every student who is to study the vernaculars intensively. The practical side of the study also should not be lost sight of, and students should have proficiency in writing and speaking the vernaculars. It should be seen whether the study of two different vernaculars can be combined. In any case, I think, it is the duty of Indian universities to give ample scope for the study of the Indian vernaculars and to gather into its fold the greatest vernacular scholars.

People's Association, Khulna—RAHIM, The Hon'ble Mr Justice ABDUR—RAY, JOGES CHANDRA—RAY, MANMATHANATH—RAY, SARAT CHANDRA—RAY, SATIS CHANDRA.

People's Association, Khulna.

The courses of University study should be arranged in such a way as to make it possible for a student to take up the scientific (*i.e.*, linguistic and philological) study of the vernacular as his optional subject, and to obtain a degree or other title showing the attainment of high proficiency therein.

RAHIM, The Hon'ble Mr. Justice ABDUR.

My experience does not encourage me to answer the question except in the negative. On the other hand, the institution of lectures in the vernacular in some useful subject as has been done, I understand, in Bengal would be of much greater service to that vernacular and the people than its so-called scientific study.

RAY, JOGES CHANDRA.

Yes; the best way to encourage the study of the vernaculars is to make them the medium of instruction in all subjects. Scientific study is not necessary in all stages, but students must be able to express complex ideas in their vernaculars when they graduate.

RAY, MANMATHANATH.

The University should take steps to encourage the scientific study of the vernaculars; otherwise, they will sink to the level of mere colloquial dialects possessing no literature worthy of the name.

The scientific study of the vernaculars should be compulsory at the intermediate, B.A., and B.Sc. In the M.A. there should be a distinct subject consisting of the comparative and philological study of the different Indian vernaculars

RAY, SARAT CHANDRA.

Yes; the scientific study of the vernacular, namely Bengali, should specially be looked after by the University. A special chair ought to be created for Bengali in the University. I advocate that the history of the growth of the Bengali language from its earliest times should be collected, and the writings of ancient Bengali authors should be made a part of the curriculum. Specially qualified men should be selected by the University to prepare books on higher grammar, philology, history of literature, and the like, and this subject should be made compulsory in all examinations.

RAY, SATIS CHANDRA.

Yes; the scientific development of the vernaculars seems to me to be a part of our national culture, and the University is the fittest body to undertake that work. A commencement in this direction may be made encouraging earnest individual scholars by the offer of prizes; and, after a small nucleus of such scholars has been formed, the University may grant scholarships or found fellowships. At the beginning, the University should defray the cost of publications, by way of encouragement.

ROY, The Hon'ble Rai SRI NATH, Bahadur—SAHAY, Rai Bahadur BHAGVATI—SANYAL, NISIKANTA—SAPRU, The Hon'ble Dr. TEJ BAHADUR—SARKAR, AKSHAYKUMAR—SARKAR, GOPAL CHANDRA—SASTRI, KOKILESWAR, Vidyaratna.

ROY, The Hon'ble Rai SRI NATH, Bahadur.

Yes; the vernacular should form a subject in the M.A. examination.

SAHAY, Rai Bahadur BHAGVATI.

Yes; I do think that the University should do more to encourage the scientific study of the vernaculars. But the methods by which it has, so far, sought to do so are not the right methods. There should be a separate degree examination for the vernaculars, and substantial rewards should be offered for the production of vernacular literature in all departments of knowledge. The scientific study of the vernacular is not encouraged merely by making the vernaculars a part of the examination for the I.A or the B.A. degree. The effect of such a course is only to facilitate the passing of these examinations with the help of the vernaculars.

SANYAL, NISIKANTA.

Yes; the vernacular should be one of the regular subjects in the University. Or it may be made compulsory for all.

SAPRU, The Hon'ble Dr. TEJ BAHADUR.

Yes; I would have separate faculties of the vernaculars, and recognise the vernaculars as languages which may be taken up by students right up to the B.A. standard. I should also, if the finances of the University permit, establish boards for the translation of classical books in other languages into our vernaculars.

SARKAR, AKSHAYKUMAR.

Yes; a test in the knowledge of grammar and literature, history and philology, should be provided up to the B.A. examination. Regular teaching, and the holding of classes, should be insisted upon.

SARKAR, GOPAL CHANDRA.

My answer to the first part of the question is in the affirmative. I would recommend the introduction of courses in oriental studies, as in the Punjab University.

SASTRI, KOKILESWAR, Vidyaratna.

The following arrangements should be made for the scientific study of the vernaculars of the presidency:—

(*a*) A more comprehensive study of grammar.
(*b*) Study of the growth of the language in relation to the general history of the people.
(*c*) Study of the gradual development of the literature from the ancient to the modern time.
(*d*) A comparative study of the vernaculars with the allied languages and literatures, such as Prakrit, Pali, and Sanskrit.

SASTRI, Rai RAJENDRA CHANDRA, Bahadur—SATIAR, RADHIKA LAL—SAYIED ABDULLAH ABU.

SASTRI, Rai RAJENDRA CHANDRA, Bahadur.

The University, as far as I am aware, has done, or is doing, very little to encourage the *scientific study* of the vernaculars of the presidency. All the University has done is to prescribe a number of text-books in the different vernaculars for the University examinations; but, as questions are, as a rule, never set from these books very few students care to read them and the subject is, speaking generally, left to be taught by old-type pandits, who have no idea as to what the scientific study of a vernacular means. I would, therefore, suggest the establishment of a chair for the Indian vernaculars, with special reference to Bengali philology and literature, by the University, and the inclusion of the subject in the curriculum of the M.A. examination.

SATIAR, RADHIKA LAL.

In connection with the scientific study of the vernaculars I may be allowed to suggest that in secondary middle schools elementary scientific manuals in the vernacular of the province should be reintroduced.

SAYIED, ABDULLAH ABU.

The question of the scientific, and the proper, study of important vernaculars which are languishing in a state of comparative neglect must engage the serious attention of any teaching university. Many of the difficulties regarding English could have been removed had the state of our vernaculars warranted their introduction as a medium of instruction in colleges. It needs no labour to demonstrate that any system aiming at making English the chief vehicle of thought in India at the cost of the vernaculars is bound to collapse, and the real aim ought to be to so improve our vernaculars as to be able to express even highly scientific and complex thoughts with ease in them. The rate at which literacy in English has advanced in India, as appearing from successive reports dealing with it, makes one feel that centuries of education must elapse before a reasonable percentage of the vast population of India can, for their practical and intellectual needs, understand this difficult language. Besides, it may be safely predicted that attempts to forcibly diffuse the knowledge of any difficult language to people speaking, thinking, and dreaming in languages entirely different from it must necessarily fail. This, however, cannot be said regarding the important vernaculars, and it is high time to concentrate our attention on evolving means for their improvement, with the ultimate object of making a particular vernacular the medium of instruction in the University in subjects like history, philosophy, and such others for which the vernaculars may be suitable. This should be the goal to which an Indian university should proceed with regard to the language problem, and the rapid absorption and coining of words and phrases will progress fast as soon as the University encourages their cultivation in the right spirit. I am not unaware of what is repeatedly urged, that in India the multiplicity of the vernaculars offers great difficulty in this respect, but it is not insurmountable, in view of the fact that it is much easier for an Indian to learn any important improved vernacular of India than to acquire even a tolerable knowledge of the English language. Thoughts peculiar to Indian sentiments and life can be best expressed in the vernaculars, and the process of truly "blending Eastern and Western culture into a harmonious whole" necessarily involves a cultivation and promotion of the study of the vernaculars. Their scientific study and improvement need, therefore, a strong stimulus and, considering their dependence upon the parent languages of which the important vernaculars are off-shoots and dialects, a wider knowledge of the Indian classical languages is clearly demanded before one can understand a vernacular book written in good literary style. Consequently, it seems to me essential that the study of the Indian classics should

SAYIED, ABDULLAH ABU—*contd.*—Scottish Churches College Senatus, Calcutta—SEAL, DR. BRAJENDRANATH.

be made compulsory for arts students at least up to the I.A. stage, instead of up to the matriculation only, with a corresponding stiffening of standard in the former. A more diffused knowledge of the Indian classics is a matter of paramount importance for enriching and improving vernacular literature.

Scottish Churches College Senatus, Calcutta.

This question is closely allied to question 11. In view of the fact that India is rapidly becoming more of a unity it is a shortsighted policy to devote a great deal of attention to the vernaculars of the various provinces with a view to making these the medium of communication and study. We want, above all, to encourage the study of, and to devote all available time to such study of, a language in which educated men from any part of India can understand each other. If it is possible to find an Indian language which can fulfil these requirements we would urge, in the strongest possible manner, that the University should encourage the scientific study of such a language. But, at persent, there seems to be no such language. Unless India is to be divided up in the future into several distinct nationalities, each speaking a language of its own, we are of opinion that a working knowledge of the provincial vernaculars is sufficient for the above purposes, and that the University should encourage scientific study in other directions. At the same time, we feel that much might be done in improving the study of the vernaculars for the sake of intelligent appreciation of their literatures, and that the University might well encourage more systematic study of *this* nature.

SEAL, Dr. BRAJENDRANATH.

The question relates to philological and historical studies, but, as the candidate's vernacular is a subject of examination in the University, and as the extension of the vernacular as a medium of instruction and of examination is contemplated in some of the questions, I may be pardoned if, under scientific study, I include also the literary and critical study of the vernaculars in the University, which must be a pre-condition of any scientific study. Fortunately, the battle of the vernacular in which Skeat and Furnivall fought the good fight under other stars has not to be fought over again in this University—one of the advantages of being born late in life!

The whole duty of this University towards the vernaculars, then, stands as follows:—

(*a*) Standard authors in prose and verse in the different vernaculars should be prescribed for purposes of literary and critical study, instead of mere 'models of composition'.

(*b*) An honours course should be instituted in Bengali, comprising old and mediæval Bengali literature, the philology of the Bengali tongue, with elements of the comparative philology of the Gaṇḍian languages, the history of Bengali literature, and the elements of comparative literature, the last being also given a due place in the corresponding honours courses in English and other languages in the B.A. curriculum. Assamese is not yet ready for this critical treatment, and Urdu, though it may be recognised as a 'second language' for Bengali Muhammadans, is not a vernacular of the provinces now within the jurisdiction of the Calcutta University.

(*c*) Critical editions of old and mediæval Bengali texts, and a standard history of Bengali literature, should be published under the auspices of the University, in collaboration with the various academies of Bengali literature. Assamese may also be similarly treated.

(*d*) A reader in Bengali philology should be appointed, one of his duties being to collect materials for a standard philological and historical dictionary of the Bengali language.

SEAL, Dr. BRAJENDRANATH—*contd.*—SEN, BENOY KUMAR—SEN, BIMALANANDA—SEN, Rai Sahib DINES CHANDRA.

(*e*) Authoritative lists of Bengali technical terms (including scientific terminology) should be prepared in collaboration with the *Sahitya Parishads* of Calcutta and Dacca. The Assamese will help themselves liberally from such compilations, as also the Hindi-Pracharini Sabhas (and their Urdu sisters, if any).

(*f*) A university extension movement, and a home university library, in Bengali, also come within the legitimate scope of the University of Calcutta.

The rise of the European vernaculars as handmaids to learning and science is a memorable chapter in the history of human freedom. Not without the aid of the academies (like the Academia della Crusca) was this march of truth and enlightenment accomplished; though the universities (as is their wont) did not fail to bring up the rear. Let one university at last go forward, if not leading the vanguard, at least marching in the middle ranks! So may some future Trevisa chronicle our forwardness and enterprise under the year of the great visit!

SEN, BENOY KUMAR.

Yes; I would advocate the following changes:—

(*a*) Inclusion of Bengali as a compulsory subject (just like English) in all the examinations up to the bachelor degree. The curriculum should include the study of the history of Bengali literature, of Bengali philology and grammar, along with a critical study of certain books and authors.

(*b*) In the M.A. course a special subject should be formed, with Bengali as the main factor, along with such subsidiary subjects as the philological and grammatical studies of Prakrit, Pali, and Sanskrit.

(*c*) Further, I should like to suggest that the University should award special prizes, scholarships, and medals for original research in Bengali literature and philology.

(*d*) That the University should appoint, from time to time, distinguished Bengali authors to deliver special courses of lectures.

(*e*) That the University should bring out special critical editions of old Bengali writers.

(*f*) That the University should try to bring out a good Bengali dictionary and a good Bengali grammar.

SEN, BIMALANANDA.

For those students who take a literary course provision should be made to encourage a scientific study of the vernaculars of the presidency and, for this purpose, some books on philology and history of the (vernacular) language and literature should be fixed in the I.A. and B.A. classes, and examinations held in those subjects.

SEN, Rai Sahib DINES CHANDRA.

The study of the vernaculars of this province was all along neglected in our University. Under the new regulations it has become a compulsory subject up to the B.A. and some scope has thus been given for its culture. But it appears to me that the regulations have aimed at imparting a very moderate knowledge of Bengali to our University students—such as would enable them to write fairly correct Bengali and qualify them for the ordinary pursuits of life. No opportunity has been given to students for the scientific study of the language or its literature. On the contrary, such a study seems to

SEN, Rai Sahib DINES CHANDRA—*contd.*

be discouraged under the existing Regulations by such clauses in the syllabuses of the I.A. and B.A. examinations respectively, as :—

"Candidates shall not be asked to answer any questions on the subject matter of books recommended, or on the history of the vernacular literature (chapter XXXI, subsection 2 of the new regulations).

"Questions shall not be set on the history of the vernacular and its literature (chapter XXXII, subsection 2 of the new regulations)."

I beg to propose the following :—

(*a*) Bengali be included as a subject for the M.A. examination.

(*b*) Encouragements in the shape of titles and rewards, be given for original research in the field of our language and literature.

(*c*) In the B.A., I.A. and matriculation examinations Bengali be made an independent subject for serious study ; not only standard works of modern writers but those of classical writers of the earlier epochs of our literature be taught systematically in our schools and colleges.

(*d*) Percentage of attendance at lectures in Bengali be taken into account, as in the cases of other subjects.

In this connection, I beg to submit that it has been proved that the vernacular literature of Bengal of which written specimens have been traced so far back as the eighteenth century A.D. is unique in its treasure of literary and poetical wealth. The late Professor E.B. Cowell, the distinguished Orientalist, who translated a considerable portion of the *Chandī Kāvya* of the Bengali poet Mukundarāma of the sixteenth century, compared him with Chaucer and Crabbe ; another distinguished European writer, while writing about Rāmāprāsāda Sen, the Bengali poet of the eighteenth century, said :—"William Blake in our own poetry strikes the note that is nearest his (Rāmāprāsāda's) and Blake is by no means his peer. Robert Burns in his splendid indifference to rank and Whitman in his glorification of common things have points of kinship with him. But to such a radiant white heat of childlikeness it would be impossible to find a perfect counterpart". John Beams compared Iswarchandra Gupta, the Bengali poet (1811—1858) with Rabelais. Mr. I. C. Marshman speaks of Mrittunjaya, the distinguished Bengali writer (born 1762), as "one of the most profound scholars of the age", and of Rama Vasu, another contemporary Bengali writer of note, Dr. Carey says :—"a more devoted scholar than him I did never see". The great Ram Mohan Roy, whom Sir John Bowring believed to be as great a man as "a Plato, or a Socrates, or a Milton, or a Newton", was himself a voluminous writer of Bengali. In the eighth and ninth centuries we have the mystic songs of the Buddhist *Sahajiyas*. In the 10th we have the celebrated *Çuniyapurāna* of Rāmāi Pandit. In the eleventh and twelvth we have the songs of the Pal kings and the earliest versions of *Gorakṣa Vijaya* and *Dharma mangala* poems. From the thirteenth to the eighteenth we have a host of classical writers of great merits writing on spiritual philosophy, biography, history, and literary subjects. The Vaiṣnava poets from the thirteenth to the eighteenth centuries we have more than two hundred in number of whom the late Swami Vivekanantda said to one of his European disciples :—"They have exhausted all the resources of tender emotions". During the British rule a rich literature has sprung up, the greatest of our modern writers being acknowledged to be one of the greatest writers of the world. From the eighth century down—from Kanupāda, Lui, and Bhusuku down to Sir Rabindra Nath—the continuity of illustrious Bengali writers has not been broken, and it is highly regrettable that our University students have not been afforded any opportunity whatever to know anything of their own great poets and writers. They can recite passages from John Webster, Philip Massinger, Ford, and Morley and a whole host of Elizabethan poets and dramatists, but do not know anything of our own greatest poets Chandidasa, Mukundarāma, Govindadasa, and Jnānadāsa, and the regulations say that no questions should be asked about these authors and their works in the university examinations.

I have not said anything regarding the importance of the study of our literature from a linguistic point of view. In its earlier classics the Bengali language shows a kinship with the Prakrit, prevalent in this province and its neighbourhood in the fifth and sixth centuries. Here, surely, is a great field for comparative study and original research, and

SEN, Rai Sahib DINES CHANDRA—*contd.*—SEN, Rai SATIS CHANDRA, Bahadur—SEN, SATISH CHANDRA—SEN, SURYA KUMAR.

there is no doubt that investigations in this field will be productive of great results, showing in a striking manner the Dravidian and other non-Aryan linguistic traits forcing themselves into original Sanskritic construction and vocabulary. The study of our literature will, besides, throw a great light on our social and political history and, until these materials have been thoroughly examined and utilised, our attempts to write a true history of our race will be in vain.

There is one very important reason why special and elaborate arrangements should be made for teaching the vernacular language in this University.

With the downfall of old and time-honoured institutions in this province its past literature has ceased to be part and parcel of our existence as it used to be in the past. In our eagerness to imitate and follow European ideals we have lost sight of our own and become untrue to ourselves. The old *Yatras* (melodramas), *Kathakatas* (narrations of religious legends with songs), *Kirtanas* (the Vaisnava singings) are now almost out of fashion. These and a hundred other institutions of this class, such as *Ramamangal*, *Manasamangal*, and *Chandimangal*, which used to keep up a perennial flow of those ideas that had come down to us from remote antiquity, prepared a healthy atmosphere which showed the real life and the instincts of our race. These institutions, based on religious and moral ideas, have now practically vanished or been greatly vitiated by foreign influence. Unless our younger generations are made to keep themselves in touch with their past literature they will be thoroughly denationalised, and we have bitter experience of what the result of a morbid imitation of the West may lead us to. An Englishman may remain English in his thoughts and ideas without reading English literature, for he is placed in an atmosphere of which his literature is a mere reflection. But a Bengali cannot remain a Bengali without reading his past literature as the ideas that produced it are in their death struggle under new conditions of life. The Bengali grocers, the Bengali artisans, are true to the instincts of their race because they are in touch with their past literature. But we are not because we never read it in our enthusiasm to read Burke and Hume. If we are thoroughly acquainted with our literature we may build our character and civilisation on it, taking advantage of our Western education. This would be a natural growth and advancement. But if we run after the ideals of the West before we have known our own history the growth, if there be any at all, will not be on desirable lines.

In conclusion, we should not ignore that higher culture in all departments of knowledge should be based upon a knowledge of one's own language and literature. Sir Asutosh Mukherjee has done pioneer work in according recognition to our language in this University, and I believe the time has come when a further recognition should be given to it.

SEN, Rai SATISH CHANDRA, Bahadur.

Yes; better teachers for the Bengali language ought to be secured. There ought to be prescribed texts, and questions should be set in the same way as in English literature. Bengali should be placed on the same footing as Persian, Arabic, or Sanskrit. Honours courses in the B.A. and M.A. degrees in the vernaculars ought to be introduced.

SEN, SATIS CHANDRA.

Readers should be appointed to lecture on historical subjects, philology, and popular mythology. These lectures should be in the vernacular of the presidency, and not in English. Theses by advanced students may also be required to be written in the vernacular.

SEN, SURYA KUMAR.

Poetry also should be included in the vernacular course of study.

SEN GUPTA, Dr. NARES CHANDRA—SEN GUPTA, SURENDRA MOHAN—Serampore College, Serampore—SHARP, The Hon'ble Mr. H.

SEN GUPTA, Dr. NARES CHANDRA.

Yes; the history, philology, and phonetics of the Bengali language and a comparative study of the vernaculars of India ought to be subjects prescribed for the B.A. and M.A. degree examinations. Researches in these subjects should also be encouraged by post-graduate scholarships. There is already a professorship in the history of Bengali literature. There should be another for philology and comparative study of Indian vernaculars.

SEN GUPTA, SURENDRA MOHAN.

The vernacular should be a full subject up to the highest degree in the University.

Serampore College, Serampore.

We are strongly of opinion that the time has come for giving Bengali a far larger place in university studies from the matriculation to the M.A. than it receives at present. The really great work in the sphere of Bengali research and scholarship that has been, and is being, done by Mr. Dines Chandra Sen reveals the possibilities of the situation. We consider that Bengali should take equal rank with the classical and modern languages in all the courses up to, and including, the M.A., and that satisfactory arrangements should be made in the colleges, and especially in the University, for a scholarly and scientific study of the Bengali language and literature, and for the comparative study of the Indian vernaculars with special reference to Bengali. Every encouragement should also be given to the promotion of research in this field. Here, if anywhere, there is scope for fruitful research on the part of Bengali students, who are considerably handicapped in other fields through linguistic difficulties. One of our Bengali colleagues, himself a very competent Bengali scholar, and widely read in Bengali literature, writes :— "In the existing course Bengali poetry and the philology of the Bengali language are conspicuous by their absence. The text-books that are recommended are, in many cases, of no permanent literary value. The standard classics of our language should find an important place in the University course, with the history of Bengali literature; at present, nobody takes the Bengali course seriously, and many colleges do not think it necessary even to arrange for definite lectures in this subject. The papers set for the Intermediate, and even the B.A. are of such a nature that boys of the third class in a secondary school would have no difficulty in answering some of them."

SHARP, The Hon'ble Mr. H.

The reply largely depends on the extent to which the provision of facilities for the encouragement of the scientific study of the vernaculars is likely to evoke response. Attempts to foster higher studies of the vernaculars have not, I believe, proved very successful in the Punjab and in Madras.

The present system, whereby vernacular composition is made a subject of study up to the degree standard, while useful in itself, is not calculated to encourage scientific investigation. It would be necessary to establish a school of vernacular, *i.e.*, a course for the intermediate, the B.A., and eventually the M.A. degree, in which the main subject of study would be the particular vernacular in question, its history and its literature, its connection with kindred languages (including some study of those languages), and philology, both in its wider aspects and with special reference to that group of languages. To some extent this should be combined with other subjects. Reference may be made to what I have said under the special subject of courses.

SHASTRI, Dr. PRABHU DUTT—SHETH, Pandit HARGOVIND DAS T.—SINGH, PRAKAS CHANDRA—SINHA, ANANDAKRISHNA.

SHASTRI, Dr. PRABHU DUTT.

The University is already doing a good deal to encourage the study of the vernaculars by making "vernacular composition" a compulsory paper up to the B.A. examination. But, in order to encourage such study still further, I would make the following suggestions :—

(*a*) The University may institute two or three vernacular examinations in composition alone and offer suitable prizes to candidates who pass with distinction ;

(*b*) These examinations should be under the control of a new and additional faculty to be created, which may be called the faculty of oriental learning (oriental classics and the vernaculars).

(*c*) A patronage of vernacular literature fund may be instituted, and authors of useful or meritorious books may be suitably rewarded every year.

SHETH, Pandit HARGOVIND DAS T.

Practically very little is done to encourage the scientific study of the vernaculars of the presidency. To attain the object the vernaculars should be accepted as the medium of instruction.

SINGH, PRAKAS CHANDRA.

I think the University should do more than it does now to encourage the scientific study of the vernacular of the province. There is an extensive field for research in Bengali literature, and I would be glad if the University should raise the status of Bengali literature by conferring the M.A. degree for high and scientific proficiency in it.

SINHA, ANANDAKRISHNA.

Certainly the University should do more—nay, much more—than what it has done to encourage the scientific study of the vernaculars of the presidency—especially Bengali. I do not think the University has done more than mere recognition of Bengali as a subject which ought to be taught. It has not done anything to install in a proper place the vernacular of the province. True, Bengali is made a compulsory subject, but the curriculum is easy in the extreme, and questions are more befitting the second or third form of a school than the I.A. or B.A. standard. Of late, public lectures in Bengali have been started by the University, and this is a move in the right direction. But this is hardly enough. The scientific study of Bengali has not yet properly begun, and only a few students of literature like Mr. Bijoy Chandra Mujumdar and Professor Suniti Kumar Chatterji (of the University post-graduate classes) are doing the pioneer work. I would like to suggest the following changes :—

(*a*) A better curriculum in the I.A., and a better system of examination, such as will test the real knowledge of students.

(*b*) A stiffer course for the B. A.—and an examination conducted on lines which will bring out the originality of students.

(*c*) Recognition of Bengali as a subject for the M.A. In the Bombay University they have got M.A. in the Marathi language and Madras has honours (B.A.) in its vernacular. Certainly in literature Bengali is superior to all the vernaculars of India, and if Marathi can be deemed worthy of the honour of an M.A. status why not Bengali ?

(*d*) Extension of University readers in Bengali, and the formation of a small class of scholars who would really devote their time and attention to the scientific study of the language.

(*e*) Proper facilities and financial help to institutions like the *Sahitya Parishad* which are doing real work in the field. These institutions should be completely autonomous, but the University should, from time to time, come forward with financial aid.

(*f*) Publication of a series of books on different subjects by experts, such as was contemplated by Sir Rabindranath Tagore in his *Visva Vidya* series. The authors should be left, completely free in their work, and the University should only bear the cost of publication and take the profits of sales.

(*g*) Steps should be taken to systematise and advance the philological investigation of the language.

(*h*) A compilation of a really good dictionary, like the Oxford Dictionary, the University bearing the cost of publication only.

SINHA, Kumar MANINDRA CHANDRA.

Yes; a more scientific study of the vernaculars is necessary. Our pandits and maulvis are sadly deficient in these scientific methods. The qualifying of such teachers should entail their knowledge of scientific methods, and the granting of diplomas to such teachers should state that candidates have studied such methods.

SINHA, PANCHANAN.

My answer is in the affirmative; teaching of the vernacular should be made compulsory up to the degree stage and a master's degree in the vernacular ought to be instituted.

SIRCAR, The Hon'ble Sir NILRATAN.

Yes; the University should do more to encourage the scientific study of the vernaculars of the presidency. There should be a compulsory vernacular course at every stage on the arts side.

Further, the vernacular should not serve as a mere medium of instruction in some subjects, but its study should be taken up as a discipline.

SMITH, W. OWSTON.

Yes; I think more should be done. I think also that every English lecturer should try to get a really good knowledge of one Indian language and its literature. He should not be satisfied with reading a few books for the higher standard or proficiency examinations.

SÜDMERSEN, F. W.

The literary and scientific study of the vernaculars of the Presidency should form an optional subject in the intermediate and arts degree courses. Definite courses should be prescribed, and the examination made into a serious subject of study. The present vernacular examination, which aims only at securing a minimum working knowledge of the vernaculars, should be retained as compulsory for all students in the arts courses who do not take the vernacular as an optional subject, and for all science students up to the degree standard. A post-graduate course, demanding a very full literary, historical, and philological knowledge of the vernacular might be created. For this course some independent work could be demanded.

SUHRAWARDY, HASSAN—SUHRAWARDY, Z. R. ZAHID—TURNER, F. C.—VACHASPATI, SITI KANTHA—VICTORIA, Sister MARY—VIDYABHUSAN, RAJENDRANATH, and VIDYABHUSANA, Mahamahopadhyaya Dr. SATIS CHANDRA.

SUHRAWARDY, HASSAN.

For Bengal Mussulmans a knowledge of Urdu is essential to be in touch with the rest of their co-religionists in other provinces. The civilising influence of Islamic culture can only be attained through this language. Bengali literature will never take the place of Urdu amongst Mussulmans as is apparent from the language of the Muhammadan "Puthi" in Bengal.

Urdu is perishing in Bengal, and every encouragement and facility must be provided for by the University.

SUHRAWARDY, Z. R. ZAHID.

Yes; vernacular should form a separate subject in the curriculum by itself and not, as now, subordinated to English, or the means of testing knowledge of English.

TURNER, F. C.

I have no special knowledge of this subject, but I consider that the vernaculars should, in the matriculation and intermediate examinations at any rate, be given equal importance with English. No student should be allowed to graduate who has not a thorough knowledge of the language and literature of his own country.

VACHASPATI, SITI KANTHA.

Yes; the standard of vernacular studies should be raised. The vernacular should have an honours course, like other subjects in the B.A. examination, and should be made a subject for the M.A. examination. The study of the vernacular in both the ancient and modern stages is desirable.

VICTORIA, Sister MARY.

The University should do more than is now done to encourage the scientific study of the vernaculars of the Presidency. At present the books set are not studied. Books should be set for study. The syllabus should include the following :—

(*a*) Set books.
(*b*) Scientific grammar.
(*c*) The elements of Sanskrit.
(*d*) Elementary philology.
(*e*) The history of Bengali literature.

Lectures should be compulsory.

VIDYABHUSAN, RAJENDRANATH, and VIDYABHUSANA, Mahamahopadhyaya Dr. SATIS CHANDRA.

Yes; the teaching of vernacular literature, both modern and ancient, should be introduced in all stages; vernacular literature should be one of the subjects at the M.A. examination.

WAHEED, Shams-ul-Ulama ABU NASR—WATKINS, Rev. Dr. C. H.—WEBB, The Hon'ble Mr. C. M.—WILLIAMS, Rev. GARFIELD—WORDSWORTH, The Hon'ble Mr. W. C.

WAHEED, Shams-ul-Ulama ABU NASR.

Certainly not; the study of the vernaculars must not form part of university study. There is no need for the scientific study of a vernacular like Bengali if that of Sanskrit is pursued systematically.

WATKINS, Rev. Dr C. H.

Bengali is a language in which great literature has been written It should have the dignity of a subject in which the University prescribes a lecture course and sees to the efficiency of the teaching.

I need not dwell on the natural sensitiveness or the national pride which would thus be gratified.

WEBB, The Hon'ble Mr. C. M.

Yes; most emphatically. In Burma, the scientific study of the vernaculars is much neglected. There has not even been a linguistic survey of the province. Without entering into details I should advocate the generous endowment of research and study of the vernacular languages, ethnography, and literature of the province in which the University is situated.

WILLIAMS, Rev. GARFIELD.

I would make a Sanskritic vernacular an integral part of every Sanskritic course and a Persi-Arabic vernacular an integral part of every Persian or Arabic course, the object being the enrichment of the vernaculars.

(Part of the general English course mentioned elsewhere would include translation from English into a vernacular and *vice versa*.)

WORDSWORTH, The Hon'ble Mr. W. C.

Yes; at present little is done to encourage the study, scientific or otherwise, of the vernaculars. Even though papers on the vernaculars are compulsory in the examinations attendance at lectures is not compulsory, as in other subjects, and I doubt whether in any college more than one hour a week is given to the vernacular in each class.

I consider that the vernacular should be made a full subject for all arts examinations, to include translation from, and into, the vernacular and English, some study of the literature, and of the development of the language. Science students should be tested in the vernacular by translation from, and into, the vernacular and English.

The problem is more than academic; general opinion has not of recent years laid much emphasis on the value of the vernaculars, though there are indications of a coming change of view.

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