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**Pamphlet for the Competition for the
Indian Civil Service**

HELD IN INDIA AND BURMA

IN

JANUARY 1936.

RULES, SYLLABUS, QUESTION PAPERS, TABLE OF
RESULTS AND REPORTS OF EXAMINERS.



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1. Rules for Competitive Examinations for the Indian Civil Service to be held in India.

(1) A competitive examination for admission to the Indian Civil Service shall be held in India at such time and place as the Governor General in Council may direct.

(2) The maximum number of candidates to be admitted to the examination may in the discretion of the Governor General in Council be limited to such number not being less than 200 as the Governor General in Council may decide. If a limit is imposed and the number of candidates exceeds that limit the Public Service Commission shall select from among the applicants those who shall be admitted to the examination and shall have regard in so doing to the suitability of the applicants for the Indian Civil Service and to the adequate representation of the various provinces of India.

(3) (i.) A candidate shall apply to be admitted to the examination before such date and in such manner and in such form as the Governor General in Council may prescribe. The application shall be made to the proper authority of the area in which his parents reside at the time of the application or of an area in which they have previously resided for a period of not less than three years or in which he has himself resided, otherwise than as a student at a university only, for a like period.

(ii) The proper authority shall be, for a Governor's province, the Chief Secretary, for Coon., Delhi or Ajmer-Merwara, the Chief Commissioner and for a State in India, the Political Officer or Agent who shall be addressed through the Durbar.

(iii) No candidate shall make more than one application in respect of any one examination.

(4) A candidate must be a male and either—

(a) a British subject of Indian domicile whose father (if alive) is a British subject or a subject of a State in India, or (if dead) was at the time of his death either a British subject or a subject of a State in India or a person in the permanent service of the Crown or a person who had retired from that Service ; or

(6) a Ruler or a subject of a State in India in respect of whom the Governor General in Council has made a declaration under Section 96A of the Government of India Act :

Provided that in the case of a male British subject the requirements of this rule may be waived by the Secretary of State in Council if he is satisfied that their observance would occasion exceptional hardship and the candidate is so closely connected by ancestry and upbringing with His Majesty's dominions as to justify special treatment.

(5) A candidate must have attained the age 21 and must not have attained the age of 23 on the first day of January in the year in which the examination is held.

(6) A candidate must be in good mental and bodily health and free from any physical defect likely to interfere with the efficient performance of the duties of a member of the Indian Civil Service. A candidate who is found after examination by a Medical Board not to satisfy these requirements will not be selected for probation.

(7) A candidate must satisfy the Public Service Commission that his character is such as to qualify him for employment in the Indian Civil Service :

Provided that, if a candidate's application to take a previous examination for admission to the service has been rejected by the Civil Service Commissioners on the ground that his employment in the service would be detrimental to the public interest, the Public Service Commission shall not admit that candidate to a subsequent examination, unless, since his rejection, new facts

favourable to him have been brought to light and are, in the opinion of the Public Service Commission, sufficient to justify his admission.

(8) The decision of the Public Service Commission as to the eligibility or otherwise of a candidate shall be final.

(9) A candidate must hold a degree of a university approved by the Governor General in Council, or the senior diploma of the Mayo College, Ajmer. The degree held by a candidate must be a degree in arts, science, or letters and a degree held in a professional or vocational subject shall not qualify him for admission to the examination. Any question whether a degree held by the candidate is of a nature qualifying him for admission to the examination shall be decided by the Public Service Commission, whose decision shall be final.

In exceptional cases the Public Service Commission may, on the recommendation of the local Government, treat as a qualified candidate a candidate who, though not possessing any of the foregoing qualifications, has passed examinations conducted by other institutions of a standard which, in the opinion of the Public Service Commission, justifies his admission to the examination.

(10) No candidate shall be admitted to the examination unless he holds a certificate of admission from the Public Service Commission.

(11) No recommendations except those invited in the form of application will be taken into consideration. Any attempt on the part of a candidate to obtain support for his application by other means may disqualify him for admission.

(12) Candidates must pay the following fee?; :—

A—To the Public Service Commission—

(i) Rs. 7/8 with the application form,

(n) if accepted for admission to the examination Us. 100 immediately after the receipt of the certificate of admission.

(Only Treasury Receipts for these amounts will be accepted by the Public Service Commission.)

B—To the local Government—

(Hi) Rs. 16 before examination by a Medical Board in the case of successful candidates.

No claim for a refund of these fees will be entertained.

(13) The examination will include the following subjects. Each subject will carry the number of marks shown against it.

Section A.—To be taken by all candidates.

	Marks.		Marks.
1. Essay	150	4. Everyday Science	100
2. English	150	5. Vernacular Language	150
3. General Knowledge	100	6. Viva Voce	200

Section B.—Candidates are allowed to take up subjects in this section up to a total of 800 marks.

Languages and Civilisations.

	Marks.		Marks.
7. Arabic Language	200	15. Vernacular Literature	200
8. Arabic Civilisation	200	16. English Literature (General)	200
9. Persian Language	200	17. English Literature (Period 1)	100
10. Persian Civilisation	200	18. English Literature (Period 2)	100
11. Sanskrit Language	200	19. English Literature (Period 3)	100
12. Sanskrit Civilisation	200	20. English Literature (Period 4)	100
13. Pali Language	200	21. Latin Language	100
14. Pali Civilisation	200		

See note marked with asterisk at end of rules.

†See rule 17 below.

History, Economics, Politics, Law and Philosophy.

	Marks.		Marks.
22. Indian History, Period 1	100	80. General Economics	200
23. Indian History, Period 2	100	31. Economic History	100
24. Indian History, Period 3	100	32. Public Economics	100
25. Modern European History, Period 1	100	33. Political Theory	100
26. Modern European History, Period 2	100	34. Political Organisation	100
27. British History, Period 1	100	35. Law	200
28. British History, Period 2	100	36. Moral Philosophy	100
29. British History, Period 3	100	37. Metaphysics	100
		38. Logic	100
		39. Indian Philosophy	100

Mathematics and Science.

	Marks.		Marks.
40. Lower Mathematics, Pure and Applied	200	51. Lower Physiology	200
41. Higher Mathematics, Pure	200	52. Higher Physiology	200
42. Higher Mathematics, Applied	200	53. Lower Zoology	200
43. Lower Chemistry	200	54. Higher Zoology	200
44. Higher Chemistry	200	55. Advanced Geography	300
45. Lower Physio'	200	56. Astronomy	100
46. Higher Physics	200	57. Statistics	100
47. Lower Botany	200	58. Psychology	100
48. Higher Botany	200	59. Experimental Psychology	100
49. Lower Geology	200	60. Physical Anthropology	100
50. Higher Geology	200	61. Social Anthropology	100

Section C. — Extra numorum subjects.

Candidates are allowed to take one of these subjects but not more than one. A candidate who has taken any period of British History under Section 13 must not take British History under this section, and a candidate who has taken Advanced Geography under Section B must not take Geography under this section.

	Marks.
62. British History	100
63. Geography	100

(14) In subject 5 (Vernacular Language) a candidate may offer any one of the following languages:- Assamese, Bengali, Burmese, Gujarati, Hindi, Kanarese, Malayalam, Marathi, Oriya, Punjabi (Gurmukhi), Sindhi, Tamil, Telugu, Urdu.

For the examinations to be held in 1936 and 1937, candidates will be allowed to offer French, German, or Italian in substitution for Vernacular Language.

(15) The Civilisation (subjects 8, 10, 12 and 14) associated with a language can only be taken by candidates who also offer the language itself.

(16) In subject 15 (Vernacular Literature) a candidate may offer the literature of any one of the following languages:—Bengali, Burmese, Gujarati, Hindi, Marathi, Punjabi (Gurmukhi), Tamil, Telugu, Urdu.

(17) In English Literature (subjects 16 to 20 inclusive) a candidate may not offer subjects coming a total of more than four hundred marks. Thus a candidate who offers English Literature (General) (subject 16) may not offer more than two periods of English Literature (subjects 17 to 20).

(18) Candidates who offer a natural science subject (subjects 43 to 64) must produce a certificate that subsequent to the passing of the Intermediate or an equivalent examination they have undergone laboratory training for a period of one year in an institution authorised to prepare candidates in the subject for a University degree or for some other qualification accepted by the Public Service Commission as of adequate standard. The certificate must be signed by the head of the institution'

(19) Candidates who offer Advanced Geography, Experimental Psychology or Physical Anthropology (subjects 55, 69 and 60) must produce a certificate that subsequent to the passing of the Intermediate or an equivalent examination they have undergone practical training in that subject for a period of one year in an institution authorised to prepare candidates in the subject for a University degree or for some other qualification accepted by the Public Service Commission as of adequate standard. The certificate must be signed by the head of the institution.

(20) Candidates who offer Astronomy (subject 56) must satisfy the Public Service Commission that they have been trained in an Astronomical observatory for a period of at least three months or have had other experience of the use of the Astronomical instruments.

(21) From the marks assigned to candidates in each subject, such deduction will be made as the Public Service Commission may consider necessary in order to secure that no credit is allowed for merely superficial knowledge.

(22) If a candidate's handwriting is not easily legible, a deduction, which may be of considerable amount, will be made on this account from the total marks otherwise accruing to him.

(23) Credit will be given for good English, including orderly, effective and exact expression combined with due economy of words, in all the subjects of the examination and not only in subjects 1 and 2 which are specially devoted to English language.

(24) A list of the competitors shall be made out in order of their proficiency as disclosed by the aggregate marks finally awarded to each competitor, and in that order, so many competitors, up to the determined number of appointments', as are found by the Public Service Commission to be qualified! by examination, shall be designated to be selected candidates for the Indian Civil Service, provided that the Governor General of India in Council is satisfied that they are duly qualified in other respects. Should any selected candidate become disqualified, the Secretary of State for India will determine whether the vacancy thus created shall be filled or not. In the former case the candidate next in order of merit, and in other respects duly qualified, shall be deemed to be a selected candidate.

(25) Selected candidates will be on probation for two years in the United Kingdom.

Special Rule applicable to Burman Candidates.

(26) (i) The term " Burman candidate " means a candidate domiciled in Burma both at the date of his birth and at the date when he applies to be admitted to the examination.

(ii) A branch of the competitive examination confined to Burman candidates shall be held in Burma and no Burman candidate shall compete elsewhere in India.

(iii) Burman candidates shall apply to be admitted to the examination to the Chief Secretary to the Government of Burma before such date and in such form as the Governor General in Council shall prescribe and rules 3 (i) and (ii) shall not apply to Burman candidates.

Elsewhere than in Burma the number of appointments which will be announced for competition will not represent the total number of vacancies to be filled in India, as certain vacancies will be reserved in accordance with paragraph 7 of the Home Department Resolution no. F. 14/17B/33-Ests., dated the 4th July 1934, and will be filled, if necessary, by nomination for the purpose of adjusting communal inequalities which may arise from the results of the competitive examinations in London and India.

In the case of Burma the number of appointments announced for competition in 1936 will represent the total number of vacancies to be filled.

† No candidate who obtains less than 750 marks will be deemed to have qualified by examination, ' .

(iv) Burman candidates shall not be included in the list made out under rule 24 but a separate list of Burman candidates shall be made out with reference to the determined number of appointments available in Burma to which the provisions of rule 24 shall apply.

(27) Any rules for the regulation of admission to the Indian Civil Service through competitive examinations held in India which are in force at the time these rules come into operation are hereby repealed,

' The following Universities have been approved by the Governor General in Council, viz. :—

Indian Universities.

Scotch Universities.

Any University incorporated by an Act of the Central or a Provincial Legislature in India.

The Universities of Aberdeen, Edinburgh, Glasgow and St. Andrews.

The Mysore University.

Irish Universities.

The Osmania University.

The University of Dublin (Trinity College).

English and Welsh Universities.

The Queen's University of Belfast

The Universities of Birmingham, Bristol, Cambridge, Durham, Leeds, Liverpool, London, Manchester, Oxford, Sheffield and Wales.

2. Syllabus for the Indian Civil Service Competitive Examination to be held in India.

1. *Essay*.—An essay to be written in English on one of several specified subjects.

2. *English*.—Questions to test the understanding of and the power to write English.

3. *General Knowledge* including knowledge of current events.

4. *Everyday Science*.—Questions to test whether the candidate has such an understanding of matters of everyday observation and experience in their scientific aspect as may be expected of an educated man who has not made a special study of any scientific subject.

5. *Vernacular or European Language* (see Rule 14).—The test will include translation from the language, set composition in which an English passage is given to be put into the language, and free composition in which the candidate writes in the language in his own words on a prescribed subject.

6. *Viva Voce*.—The examination will be in matters of general interest, not in matters of academic interest ; it is intended to test the candidate's alertness, intelligence, and general outlook.

7—14. *LANGUAGES AND CIVILISATION*.—Candidates will be expected to show a knowledge of the language and its literature. The papers on civilisation will test the knowledge of geography, history, and social, political and religious evolution and developments. Questions may be set which require an acquaintance with archaeological discoveries.

7. *Arabic Language*.—Translation from Arabic into English and from English into Arabic and composition in Arabic on one or more specified subjects. The classical language must be used.

8. *Arabic Civilisation*.—History and literature of the Arabs with special reference to the period from the middle of the 6th Century A. D. to the middle of the 13th Century A. D.

9. *Persian Language*. — Translation from Persian into English and from English into Persian and composition in Persian on one or more specified subjects. The classical language must be used.

10. *Persian Civilisation*.—Persian history and literature with special reference to the period 1000 A. D. to 1500 A. D.

11. *Sanskrit Language*.— Translation from Sanskrit into English and from English into Sanskrit and composition in Sanskrit on one or more specified subjects.

Questions may be set on Vedio Grammar relating to grammatical forms occurring in the passages set for translation or to general grammatical questions suggested by them. Both Vedic and Classical Sanskrit passages may be set for translation : composition will be required in classical Sanskrit alone. A knowledge of the Prakrit used in plays will be expected. The Pevanagari script must be used.

12. *Sanskrit Civilisation*. — The history of the Civilisation and thought of India from the Vedic period to 1200 A. D.

13. *Pali Language*. — Translation from Pali into English and from English into Pali and composition in Pali on one or more specified subjects.

14. *Pali Civilisation*. — The history of Budhistic Civilisation in India from the time of Buddha to 1000 A. D.

15. *Vernacular Literature*.—Candidates will be expected to know the best known works in the vernacular though questions on works of lesser importance may be set. They will also be expected to possess a knowledge of the history of the literature and such knowledge of general social history as will enable them to understand the literature. Unless the instructions on the question paper are to the contrary, answers should be written in English,

16. *English Literature — General*. — Candidates will be expected to show a general knowledge of the history of English Literature from the time of Chaucer to the end of the reign of Queen Victoria and to give evidence of wide reading in English Literature.

17—20. *English Literature—Periods 1 to 4*.— Special attention should be paid to the authors named and a candidate will be expected to be familiar with some of their works.

A candidate will also be expected to have studied the literary history of this period, and to have done some independent reading outside the authors named. In marking the paper importance will be attached to evidence of wide reading and independent judgment.

Period 1, 1580 to 1680 :—Spenser, Shakespeare, Milton, Bacon, Banyan.

Period 2, 1680 to 1780 :—Dryden, Pope, Gray, Addison, Swift, Fielding, Johnson, Sheridan, Burke.

Period 3, 1780 to 1832 :— Scott, Wordsworth, Lamb, Keats, Shelley, Byron, Jane Austen.

Period 4, 1832 to 1901 : — Macaulay, Carlylo, Dickens, Thackeray, the Brontes, Tennyson, Robert Browning, Matthew Arnold, R. L. Stevenson, Thomas Hardy,

21. *Latin Language*.— Translation from English into the language and from the language into English. Questions may be asked on the Grammar of the language.

HISTORY. — *Subjects 22 to 29*. — Candidates in these subjects should be acquainted with geography in its relation to history and be prepared to draw sketch maps. When a fixed date is given for the beginning of a period candidates will be expected to know in general outline how the initial position was reached.

22, *Indian History—Period 1*.—India from the first Aryan immigration to the end of the 12th century. Questions may also be set on the history of Buddhism outside of India.

23. *Indian History—Period 2.*—India from the beginning of the 11th century to 1748 (death of the Mogul Muhammad Shah). Questions may also be set on the contemporary history of the principal Moslem powers outside of India.

24. *Indian History—Period 3.*—India during the British period from 1600 to 1919 together with the contemporary history of the British Empire.

25 and 26. *Modern European History—*

Period 1, 1453—1740.

Period 2, 1740—1920.

Questions may be asked on the history of countries outside Europe so far as a knowledge of that history is necessary to the understanding of European History.

27. *British History Period 1, 1485—1714.*

28. *British History Period 2, 1714—1815.*

29. *British History Period 3, 1815—present day.*

30. *General Economics.*—Candidates will be expected to have a knowledge of economic theory and should be prepared both to illustrate the theory by the facts and to analyse the facts by the help of the theory. Questions may be set on the history of economic thought.

31. *Economic History.*—Candidates will be expected to have a knowledge of both British and Indian economic history with special reference to the economic development of India during the British period; such knowledge will be expected of conditions in other countries as is necessary for the understanding of the subject.

32. *Public Economics.*—A knowledge will be expected of the main forms of State action, central and local in the economic sphere, and of public finance.

33. *Political Theory.*—Candidates will be expected to show a knowledge of political theory and its history, political theory being understood to mean not only the theory of legislation, but also the general history of the State and its connection with kindred studies such as Jurisprudence, Public International Law and Economics. A knowledge of original authorities is required.

34. *Political Organisation.*—Constitutional Forms (Representative Government, Federalism, etc.), and Public Administration, central and local. Candidates will be expected to understand the origin and development of existing institutions.

35. *Law.*—Constitutional Law of the British Empire, Jurisprudence, Torts, Indian Law of Contract, Indian Evidence Act, Indian Penal Code.

36. *Moral Philosophy.*—The subject covers the history and the theory of Ethics, Eastern and Western, and includes moral standards and their application, the problems of moral order and progress of Society and the State, and theories of punishment.

37. *Metaphysics.*—The subject covers the history of Western Philosophy and should be studied with special reference to the problems of space, time, and casualty, evolution and value, the nature of God.

38. *Logic.*—Formal logic, scientific method, epistemology in its bearing on logical problems and the history of logic. Questions may be set on the logic of mathematics, symbolic logic and the logic of probability.

39. *Indian Philosophy.*—The subject covers the philosophical conception of the Vedas, the Upanishads and the Bhagavadgita; Buddhist and Jaina developments; the six systems of Indian Philosophy, viz., the Nyaya, the Vaisheshika, the Sankhya, the Yoga, the Purva Mimamsa and the Vedanta, treated historically and critically.

40. *Lower Mathematics, Pure and Applied.*—Logarithms, numerical equations, graphs, approximation, infinite series, complex numbers, solution of triangles.

Geometry in two and three dimensions according to the method of Euclid. Analytical geometry in two dimensions (method of Descartes). The construction of plans, elevations, and sections of solid bodies (method of Monge). The method of vectors, including scalar and vector products with applications to the other parts of Lower Mathematics.

Differential co-efficients, maxima and minima, integrals, the application of the infinitesimal calculus to curves.

Projectiles, harmonic motion, momentum, energy, power, Equilibrium of rigid bodies in two dimensions, link polygons, virtual work. Simple machines, *e.g.*, tackle cranes, engine governors, brakes. Fluid pressure, expansion of a perfect gas, air pump.

41. *Higher Mathematics, Pure:—*

Lower Pure Mathematics together with—

The Geometry of Curves and Surfaces. Elementary analysis, including simple functions of a complex variable and contour integration. Differential equation in one independent variable ; elementary treatment of partial differential equations with special reference to the differential equations of mathematical physics. Existence theorems are excluded.

Calculus of Finite Differences including Numerical Integration and summation of Linear Differential Equations.

42. *Higher Mathematics, Applied:—*

Lower Applied Mathematics together with Statics (Advanced) including graphical treatment. Dynamics to the Equations of Euler and Lagrange and including the theory of the vibration of strings and other simple systems.

Hydrodynamics including the elementary theory of the motion of solids through a liquid, and surface waves.

Electricity and Magnetism.

Thermodynamics. Kinetic theory of gases, radiation.

NATURAL SCIENCE.—*Subjects 43 to 54*

43. *Lower Chemistry.*

44. *Higher Chemistry.*

45. *Lower Physics.*

46. *Higher Physics.*

47 and 48. *Lower and higher Botany.*—Botany includes vegetable physiology.

49 and 50. *Lower and Higher Geology.*—Geology includes mineralogy.

51, *Lower Physiology.*

62. *Higher Physiology.*

53. *Lower Zoology.*

64. *Higher Zoology.*

55. *Advanced Geography.*—Geography of the world with special reference to India. Questions may be set on topics which concern geography jointly with other subjects such as economics, history, physics, botany and geology. There will be a practical test, which will necessitate a knowledge of cartographical methods and notations, and for this test drawing instruments maybe required.

56. *Astronomy.*—Celestial co-ordinates, spherical triangles. Astronomical instruments. Time, longitude, latitude, Orbital motion of the earth, aberration, precession, nutation, libration parallax. Celestial mechanics, solar system. Eclipses. Atmospheric refraction.

The stars and constellations. Nautical Almanac. Descriptive discussion of sun, moon, planets. Descriptive discussion of double stars, nabulre, clusters, variable stars, comets. Star magnitudes and distances. Stellar **movements**,

Application of spectroscopy to astronomy. Solar spectrum. Star spectra and classification. The temperature's absolute magnitudes and diameters of stars.

57. Statistics.—Frequency distributions, averages, percentiles, and simple methods of measuring dispersion, graphic methods, treatment of qualitative data, *e.g.*, investigation of association by comparison of ratios, the practice of graphic and algebraic methods of interpolation.

(2) Practical methods used in the analysis and interpretation of statistics of prices, wages and incomes, trade, transport, production and consumption, education, etc., methods of dealing with population and vital statistics, miscellaneous methods used in handling statistics of experiments or observations.

(3) Elements of modern mathematical theory of statistics, frequency curves and the mathematical representation of groups generally, accuracy of sampling as affecting averages, percent-ages, the standard deviation, significance of observed differences between averages of groups, etc., the theory of correlation for two variables.

68. *Psychology*.—Questions on the history of the subject may be included.

59. *Experimental Psychology*.

60. *Physical Anthropology*.—Candidates will be expected to have such knowledge as may be required by laboratory and museæ work, consisting mainly in the handling and study of specimens and exhibits. The subject should be studied with special, but not exclusive, reference to peoples of rude culture and to pre-historic civilisation.

61. *Social Anthropology*.—The subject should be studied with special, but not exclusive, reference to peoples of rude culture and to pre-historic civilisation.

EXTRA NUMERUM.

62. *British History*.—Candidates will be expected to show a knowledge of the general course of the political, social and industrial history of Britain from the earliest times and of the British Empire.

63. *Geography*.—The general and political geography of the World. A special knowledge of the Geography of India and neighbouring countries will be expected. Questions on physical and economic geography may be set.

(X)

3. Time Tables.

(A) *VIVA VOCE.*

The interviews in Delhi began on Thursday, the 9th January, 1936, and ended on Wednesday, the 22nd January, 1936. Each candidate was interviewed for fifteen minutes or more. The Barman candidates were interviewed in Rangoon on the 9th and 10th January, 1936.

(2?) *WRITTEN PAPERS.*

NOTE.—" Standard Time " will be observed throughout.

Day.	Hour.	Subject.
Monday, 6th January . .	9-30 A.M. to 12-30 P.M.	Essay.
	1-30 P.M. to 4-30 P.M.	English.
Tuesday, 7th January . .	9-30 A.M. to 11-30 A.M.	General Knowledge.
	12 NOON to 2-00 P.M.	Everyday Science.
Wednesday, 8th January . .	9-30 A.M. to 11-00 A.M.	French Language, Paper I.
		Vernacular Language, Paper I.
	11-15 A.M. to 12-45 P.M.	French Language, Paper II.
		Vernacular Language, Paper II.
Thursday, 9th January . .	2-00 P.M. to 3-30 P.M.	French Language, Paper III.
		Vernacular Language, Paper III.
	9-30 A.M. to 12-30 P.M.	Extra Numerum subject { British History.
		{ Geography.
Friday, 10th January . .	1-30 P.M. to 4-30 P.M.	Modern European History, Period 1.
		Higher Geology, Paper I.
		Statistics.
		Psychology.
Friday, 10th January . .	9-30 A.M. to 12-30 P.M.	Indian History, Period 1.
		Higher Zoology, Paper I.
		Advanced Geography, Paper I.
		Higher Physiology, Paper I.
	1-30 P.M. to 4-30 P.M.	Lower Physics, Paper I.
		Arabic Civilization, Paper I.
		Sanskrit Civilization, Paper I.



Day.	Hour.	Subject.
Friday, 10th January— <i>contd.</i>	1-30 P.M. to 4-30 P.M.	Pali Civilization, Paper I. Higher Zoology, Paper II. Advanced Geography, Paper II.
Saturday, 11th January	9-30 A.M. to 12-30 P.M.	Indian History, Period 2. Higher Physiology, Paper II. Higher Geology, Paper II.
	1-30 P.M. to 4-30 P.M.	Lower Physics, Paper II. Arabic Civilization, Paper II. Sanskrit Civilization, Paper II. Pali Civilization, Paper II.
Monday, 13th January	9-30 A.M. to 12-30 P.M.	Indian History, Period 3. Higher Mathematics (Applied), Paper I.
	1-30 P.M. to 1-30 P.M.	General Economics, Paper I. Lower Zoology, Paper I.
Tuesday, 14th January	9-30 A.M. to 12-30 P.M.	Modern European History, Period 2. Higher Mathematics (Applied), Paper II.
	1-30 P.M. to 1-30 P.M.	General Economics Paper II. Lower Zoology, Paper II. Indian Philosophy.
Wednesday, 15th January	9-00 A.M. to 11-00 A.M.	Arabic Language., Paper I. Sanskrit Language, Paper I.
	11-15 A.M. to 1-15 P.M.	Arabic Language, Paper II. Sanskrit Language, Paper II,
	9-30 A.M. to 12-30 P.M.	Lower Geology, Paper I Lower Physiology, Paper I. Higher Physics, Paper I. Experimental Psychology. Public Economics.
	2-00 P.M. to 5-00 P.M.	Lower Geology, Paper II. Lower Physiology, Paper II. Higher Physics, Paper II. I Latin.

Day.	Hour.	Subject.
Wednesday, 15th January— <i>contd.</i>	2-00 P.M. to 5-00 P.M.	Logic.
Thursday, 16th January . . .	9-30 A.M. to 11-30 A.M.	Arabic Language, Paper III. Sanskrit Language, Paper III.
	9-30 A.M. to 12-30 P.M.	Lower Botany, Paper I. Higher Mathematics (Pure), Paper I.
	1-30 P.M. to 4-30 P.M.	Lower Botany, Paper II. English Literature (General), Paper I.
Friday, 17th January . . .	9-30 A.M. to 12-30 P.M.	Higher Mathematics (Pure), Paper II. Higher Botany, Paper I. Political Theory.
	1-30 P.M. to 4-30 P.M.	English Literature (General), Paper II. Higher Botany, Paper II.
Saturday, 18th January . . .	9-00 A.M. to 11-00 A.M.	Pali Language, Paper I. Persian Language, Paper I.
	11-15 A.M. to 1-15 P.M.	Pali Language, Paper II. Persian Language Paper II.
	9-30 A.M. to 12-30 P.M.	Higher Chemistry, Paper I.
	2-00 P.M. to 6-00 P.M.	British History, Period 1.
Monday, 20th January ,	9-30 A.M. to 11-30 A.M.	Pali Language, Paper III. Persian Language, Paper III.
	9-30 A.M. to 12-30 P.M.	Higher Chemistry, Paper II.
	1-30 P.M. to 4-30 P.M.	English Literature, Period 3. Social Anthropology.
Tuesday, 21st January . . .	9-30 A.M. to 12-30 P.M.	Persian Civilization, Paper I. Lower Chemistry, Paper I. Metaphysics.
	1-30 P.M. to 4-30 P.M.	Vernacular Literature.
Wednesday, 22nd January . . .	9-30 A.M. to 12-30 P.M.	Persian Civilization, Paper II. Lower Chemistry, Paper II.
	1-30 P.M. to 4-30 P.M.	Lower Mathematics, Paper I. English Literature, Period 2.

Day.	Hour.	Subject.
Thursday, 23rd January . .	9-30 A.M. to 12-30 P.M.	Lower Mathematics, Paper II.
		English Literature, Period 4.
	1-30 P.M. to 4-30 P.M.	English Literature Period 1.
		Moral Philosophy.
Friday, 24th January	9-30 A.M. to 12-30 P.M.	Law, Paper I.
	1-30 P.M. to 4-30 P.M.	British History, Period 2.
Saturday, 25th January . .	9-30 A.M. to 12-30 P.M.	Law, Paper II.
	1-30 P.M. to 4-30 P.M.	Political Organization.
Monday, 27th January . .	9-30 A.M. to 12-30 P.M.	British History, Period 3.
	1-30 P.M. to 4-30 P.M.	Economic History.

4 QUESTION PAPERS.

ESSAY

Time allowed 3 hours.

Maximum marks 150.

Write an essay on *one* of the following subjects :—

(a) 'The present century has proved the evils of Nationalism. In its place many are trying to substitute an academic inter-nationalism which is leading us nowhere. What is required is a solution which takes into account the facts of human nature, and preserves all that is best both in competition and co-operation.'

(6) The Conferences of Washington, London, and Locarno, and the Kellogg Pact as steps on the way to World Peace.

(c) Rejoice we are allied
 To That which doth provide
And not partake, effect and not receive !
 A spark disturbs our clod;
 Nearer we hold of God
Who gives, than of His tribes that take, I must believe,

(d) ' Vain, very vain, my weary search to find
That bliss which only centres in the mind :
How small, of all that human hearts endure,
That part, which laws or kings can cause or cure.
Still to ourselves in every place consigned,
Our own felicity we make or find.'

(e) ' For whosoever hath, to him shall be given ; and whosoever hath not from him shall be taken even that which he seemeth to have.'

(.) Can emigration solve some of India's economic and social problems ? Is it a practicable solution ?

(g) Federal Constitutions.

ENGLISH

Time allowed 3 hours.

Maximum marks 150.

(The number of marks carried by each question is indicated at the end of the question.)

1. Write a precis of the following in about one-third of its length :—

The overshadowing by the novelist of all other branches of the profession of letters, which is the most notable feature of recent literary history, is not without embarrassments to himself. The novel is coming to be subjected to the minute and detailed criticism that was formerly reserved for the solemn production of scholarship and science. But whereas the author of a treatise on Browning's use of the split infinitive, or on the manners and morals of the plesiosaurus, may be fairly sure of having only to face the attacks of his

fellow-grammarians or palaeontologists, with whom he is presumably competent to deal, the unhappy novelist, whose theme is common life, finds himself beset by the innumerable specialists in the midst of whom common life is lived. If his characters go on a railway journey, some erudite Bradshaw scholar may convict them of starting from the wrong terminus and travelling by a train consecrated exclusively to the transport of milk-cans; if they fall sick, Harley Street will patronizingly observe that the treatment they receive for scarlet fever is that prescribed by the profession for cases of housemaid's knee; if they inherit great possessions from unsuspected and intestate noble kinsmen, genealogists pour scorn on the proofs of their pedigree and conveyancers expose the invalidity of their title-deeds. Their investments must satisfy the censorious judgment of Tattersall's or the Stock Exchange, their sports please critical and expert eyes at Twickenham or Lord's; while their creator cannot even consign them to the grave without some anxiety for some flaw in procedure which may expose him to the ridicule of sextons, undertakers, or monumental masons. We can scarcely wonder at the increasing tendency of contemporary writers to take refuge in the old dictum that every man possesses the material for one good story, and to confine themselves to variations on an autobiographical theme.

Undoubtedly there are some books to which it is fair to apply these exacting tests. Such, for instance, are historical novels, not because of the disturbing effect of their casual inaccuracies on the minds of students of history, who are too small a class to be entitled to special consideration in works not primarily addressed to them, but because an historical novel is by its very nature didactic. However modest the author's intention may be, the majority of his readers are sure to accept him at his face value as a teacher of history; it is right to expect some assurance that they are not being misled. The presentation of the Knights of the Temple as priests, and of a Franciscan friar dispensing lavish hospitality in an English forest at a date when St. Francis was playing in his nursery at Assisi, are real, if minor, flaws in a great masterpiece, because *Ivanhoe* is definitely an historical novel; the infant Perdita's landing on the pea-coast of Bohemia detracts nothing whatever from the greatness of *A Winter's Tale*, which no one has ever taken for a geographical play. Another class of novel of which a special accuracy is justly demanded is the novel of propaganda. Though some play must here be allowed to rhetorical exaggeration, and though we do not expect the authorities for the administration of brimstone and treacle to be cited in footnotes, a disproof of the historicity of the main features of Dotheboys Hall would reduce *Nicholas Nickleby* to the rank of a scurrilous libel. With some other novels of specialized themes we reach more debatable ground. The writer of a detective story, recently pilloried in our columns by a member of the force for ignorance of the relative precedence of a chief constable and an inspector, might retort that professional police procedure is only incidental to the subject, that no sane man would come to him for instruction in it, and that he could not be expected to anticipate the extension of the traditional recreations of busmen to the inner circles of Scotland Yard. Exponents of that popular branch of the art, the desert novel, may claim that the sheikh is now universally understood as a purely ideal figure, and that a reader has only herself to thank if she experiences any inconvenience from using one of these works as a manual of etiquette in the polite society of the Saharas. And the writer who is no specialist but a simple story-teller, and who is told that, before he sends his manuscript to the printer, he must go the rounds of the experts and have the hero's wardrobe censored in Savile-row and the heroine's in Bond Street, the moonlight of their betrothal at Greenwich and their marriage licence at Doctor's Commons, will, if he has a proper confidence in himself and pride in his calling, sweep aside all these irrelevancies with indifference or scorn, protesting that his craft is the craft of Homer, and his subject, by the treatment of which alone he can be judged, is not tailoring or astronomy or jurisprudence, but men and women whose innermost hearts will not be seriously affected though trousers be creased down the sides and the moon rise in the west. And perhaps the art of fiction will not be grievously impaired if, with all this hypercriticism of the trivial, he repudiates the exaggerated realism from which it

proceeds, placing the scene of his next story in the Land of Heart's Desire and dating it 'once upon a time'. 40

2. Explain as simply and as briefly as possible the meaning of the following passages:—

(a) The fault, dear Brutus, is not in our stars
But in ourselves that we are underlings.

(6) Poets are the unacknowledged legislators of the world,

(c) He that delighteth in solitude must either be a beast or a god.

(A) He that hath wife and children hath given hostages to fortune.

(e) The child is father of the man. 30

3. *Either*, (a) Discuss some of the features of the post-war novel.

Or, (6) Take any short poem or literary passage and show how it suffers by the substitution of less skilfully selected words and phrases. 30

4. In a brief essay indicate what will be the position of the Indian States in Federated India. 30

5. Explain the use and origin of—Augean stable, open Sesame, crossing the Rubicon, Pickwickian sense, Eldorado, Shibboleth, Lilliputian, Gordian knot. 20

GENERAL KNOWLEDGE.

Time allowed—2 hours.

Maximum marks—100.

(Five questions only to be attempted. Two must be chosen from PART 1 and two from PART 2. All the questions carry equal marks.)

PART 1 .

1. Compare, in general terms, the structure of the present Central and Provincial legislatures in India with that proposed for the Federal and Provincial legislatures in the new constitution.

2. Is there an unemployment problem in India similar to that of the West, *e.g.*, in Great Britain and the United States? If so, what is its nature and how would you deal with it?

3. If you were asked to make proposals to increase the revenues of the Government of India by fresh taxation, what taxes would you propose, and why?

4. Give an estimate of the political importance of Zionism.

To what reasons do you ascribe the antagonism of the Nazis to the Jews?

5. Give an account of the origin, meaning, and result of the Saar plebiscite.

6. Write a note on the significance of *each* of the following:—(a) Walter Dillinger, Public enemy No. 1; (6) the Federal Railway authority in India; (c) Public or Civil Service Commissions.

PART 2.

7. Examine the statement that, since the Great War, the political cycle has turn from democracy to tyranny.

8. What do you consider to be the sociological advantages and disadvantages of the caste system in India?

9. Criticize the view that the economic difficulties of the modern world are due to over-population.

10. What, in your opinion, should be the functions of the modern state ?
11. What regions of the world do you think still unexplored, and why ?
12. Write explanatory notes on :—(a) the Statute of Westminster, (b) the Whitley Commission, (c) Friendly Societies.

EVERYDAY SCIENCE.

Time allowed—2 hours.

Maximum marks—100.

(Candidates should attempt not more than five questions. All the questions carry equal marks.)

1. 'On the surface of Nature at first we see discontinuity, objects detached and countable. Then we realize the air and other media, and so emphasize continuity and flowing quantities. Then we detect atoms and numerical properties, and discontinuity once more makes its appearance. Then we invent the ether, and are impressed with continuity again.' Discuss.

2. Explain how energy is transmitted from sun to growing tree, from tree to steam-engine, from steam-engine to electric dynamo, and from dynamo to electric light and heat.

3. What is the relation between heat, light, X-rays, and ultra-violet light ?

4. What is meant by the 'sleep' of animals and of plants ? When and why do they sleep ?

5. Describe the working of (a) the ordinary ice-box, and (b) any one type of mechanical refrigerator. Which among the many prerequisites for ideal refrigeration is of the greatest importance ?

6. Explain how carbon dioxide, without being possibly a substance of vital importance, yet plays an important part in the common luxuries of everyday life.

7. Compare the circulation of the blood in an animal with the flow of the sap in a plant.

8. A newspaper account of a man found dead in a room with a gas stove burning and windows closed ended as follows : 'It is believed that the gas-stove had used up all the oxygen in the room ; and hence, the occupant was asphyxiated while asleep.' Discuss this remark.

9. Comment on the following : the athletic ideal is not the hygienic ideal.

10. 'The subject of preventive medicine is one that is attracting world-wide attention to-day. We can hardly pick up a newspaper or magazine without seeing the subject discussed in some of its phases, and during the last few years several books have appeared devoted wholly or in part to the ways of preventing rather than curing many of our ills.' Explain.

VERNACULAR LANGUAGE—TRANSLATION.

PAPER 1.

Not reproduced.

VERNACULAR LANGUAGE.

PAPER 2.

Time allowed—1½ hours.

Maximum Marks—45.

(Translate the following passage into the vernacular which you offer, writing in the character appropriate to the language. Handwriting which is at all difficult to read will be penalized.)

The culture that we wish to preserve presumably includes not only that heritage of literature, art, science, and philosophy that has been handed on, but the power to absorb it and to expand it in the same spirit in which it was created. There can be no static culture which a German may think of as peculiarly Germanic, or which a Russian may think of as capable of being compressed within a Communist mould in accordance with a predetermined 'ideology'. Fix culture precisely, and culture is doomed. Medieval Christendom attempted to confine it strictly under the moulds of the Roman Catholic tradition, with the result that most of the arts for several centuries were lifeless, and such a pioneer as Roger Bacon was fortunate in being able to pursue his inquiries at all. The arts and the sciences cannot exist except in an atmosphere of free talk and discussion and, in modern times, free writing that gives currency to ideas. A country which cuts itself off from the free operations of ideas inevitably cuts itself off from progress and begins living upon its intellectual capital; and the suffering of its intellectuals in the meantime is a small part of its total loss.

And freedom for political discussion is comparable with freedom in the arts. Political growth comes from political ideas, and political ideas depend on freedom to talk, write, and read. A Fascist mould of thought, or a Communist mould, constricting the free play of the mind, must in the long run kill originality and prevent progress. Civilization itself depends on the coming to flower of the finer growths of the mind, which are eradicated like weeds in countries governed by censors.

The dangers to culture which exist under despotisms are so obvious that in the long run they may prove the more easy to overcome. More insidious because less obvious are those which exist under democracies. The danger here is that arising from the triumph of the coarser ideas at the expense of the finer, and the starvation of the latter. What is wrong with democracy is not its democracy, but its imperfections; and these are especially noticeable in the power which is conferred on rich corporations to exploit the masses, so that those who pander to the tastes of a culturally lower average of humanity prosper, and those who consider mainly the higher average are at a disadvantage. Those who by their economic power control the popular newspapers exercise too much influence; and this presents a danger to national culture in democratic States which the champions of culture would do well to take into their consideration. But it must not be supposed that a political dictatorship which retains its authority by disciplining the minds of the masses will avoid any of the defects of demagogic propaganda; on the contrary, the news it doles out will be on the whole more tendentious than that served up in partisan newspapers in democratic countries; its publicity will be even more inflammatory, excitable, and distortive. We shall not escape even the evils which exist under democracy by handing over power to dictators. The remedy is not to turn to Fascism or Socialism—the intellectual patronage of an inorganic State will not help—but it lies rather in improving democracy, and breaking down propagandist monopolies which endanger cultural freedom,

VERNACULAR LANGUAGE.

PAPER 3.

Time allowed—1½ hours.

Maximum Marks—60.

(Write an essay on *one* of the following subjects in the vernacular which you offer, using the written character appropriate to the language. Handwriting which is at all difficult to read will be penalized.)

- (a) The value of exhibitions.
- (b) Rural reconstruction.
- (c) Horse-racing in India.
- (d) Direct and indirect election.
- (e) The emancipation of women.
- (f) Local self-government.
- (g) The westernization of eastern people.
- (h) 'Death is the end of life. Why should all labour be?'

FRENCH.

PAPER 1.

Time allowed—1½ hours.

Maximum Marks—45.

Translate into English:—

Il est des domaines sur lesquels on ne s'appesantit pas volontiers tant ils présentent un caractère attristant. Ainsi le domaine hospitalier dont les frontières sont celles mêmes de la souffrance.

Et cependant, Ja comme ailleurs, Tart n'a jamais perdu ses droits. On l'a bien vu l'an passé quand l'Assistance publique de Paris inaugura un magnifique musée où voisinaient toutes les époques. On le verrait bien davantage encore en parcourant quelques-uns de ses vieux hôpitaux ou hospices qui s'appellent la Charité, la Salpêtrière et Saint-Louis. De tous, ce dernier est peut-être le plus symbolique, parce que le plus ancien, le plus stylish et aussi le plus chargé de misère humaine.

Jusqu'à l'avènement d'Henri IV, Paris ne comportait qu'un grand établissement d'assistance générale aux 'pauvres malades', l'Hôtel-Dieu.

Situe place du Parvis-Notre-Dame, la ou se trouve aujourd'hui l'imperieuse et imperiale statue de Charlemagne, il enjambait la Seine au lieu dit le Petit-Pont. Immense pour l'époque, compare 'aux bras de la Providence toujours ouverts à ceux qui veulent s'y réfugier', il accumulait les malades par milliers. Il est vrai que ceux-ci tenaient jusqu'à douze dans le même lit, contagieux et non contagieux, agonisants et convalescents, fiévreux et blessés. Étrange hygiène qui faisait de l'Hôtel-Dieu l'antichambre de la mort.

À la suite d'une épidémie de peste plus rude que les précédentes, Henri IV, reprenant une conception avortée de François I^{er}, décida, en mai 1607, la construction hors Paris d'un hôpital spécialement affecté aux pestiférés. Un emplacement fut vite trouvé, des plans promptement dressés et la construction rapidement conduite...

On imagine mal que cet hôpital, situé aujourd'hui à l'intérieur de la ceinture de Paris à égale distance du centre de la capitale et de la périphérie, ait pu être, il y a trois siècles, hors des faubourgs de la cité, en pleine campagne. C'est qu'alors l'enceinte nord de la ville suivait le tracé de la place de la Bastille à la porte Saint-Denis. Au-delà, il y avait les collines de Saint-Chaumont et de Belleville, parsemées de moulins trapus. À l'est, irriguée par le ruisseau de Menilmontant, la plaine, le Marais, était vouée aux cultures maraîchères. À l'ouest, dominait une éminence bien connue des Parisiens, la butte de Montfaucon, sur laquelle se dressait le gibet sinistre, et dont la voie d'accès était le chemin de Meaux, aujourd'hui rue de la Grange-aux-Belles.

C'est à l'abri des collines de Belleville et de Saint-Chaumont que, sur un terrain marécageux et plat, fut édifié l'hôpital Saint-Louis. Affecté aux pestiférés, il se devait d'être clos comme une prison. Et de fait, il le fut. De forme rectangulaire, avec deux boursoufflures sur ses côtes les plus petites, il était clos par un mur élevé et sans autre brèche que quatre portes soigneusement gardées.

FRENCH.

PAPER 2.

Time allowed—1½ hours.

Maximum marks—45.

Translate into French :—

At night, after dinner, I would sometimes get as far as the road that passed behind our garden. Let the weather be fair or foul, what matter! I was at home in all weathers. The road descended the hill, between the vines and the pastures; in summer, I lay at length on the grass, behind some hedge; in winter, I would sit down on some bench, in the shelter of a roadman's hut. I would remain at first with mind a blank, letting that nocturnal countryside penetrate my being. "What a purification! What a re-birth in the heart of the world!" The night would gradually become less shadowy to my eyes; I could make out the river flowing through the meadow. Sometimes a belated vehicle would pass by on the road; and I would conceal myself to avoid being addressed. Towards midnight I would return up the hill to my home again, a man among men and a thing among things, intoxicated with lucid simplicity. The first time my parents noticed my walks, they became uneasy and set them down to some amorous adventure. They followed me. Their suspicions were baseless; when they came to know it, I verily believe they were sorry.

FRENCH,

PAPER 3,

Time allowed—1½ hours.

Maximum marks 60,

Write a composition, in French, on *one* of the following subjects :—

- (a) En quoi l'etude des langues etrangeres peut-elle nous aider a mieux connaitre et a mieux pratiquer la notre ?
- (b) Est-il vrai de dire avec de Bonald, que 'La litterature est l'expression de la societe' ?
- (c) Discutez les meritos et les defauts du systeme de jury.
- (d) L'ecriture anglaise gagnerait-elle ou perdrait-elle a etre reformee ?

ARABIC LANGUAGE.

PAPER 1.

Time allowed—2 fiours.

Maximum Marks 65.

(All the passages carry equal marks.)

Translate into English *any four* of the following passages :—

(a) قلما تجد امرا لا يتطرق اليه الضجر من كل ما يعييط به — فهو يتأفف من صحوة ومن
نومه ومن عمله ومن بطالته ومن جوعه ومن شبعه ومن بؤسه ومن مسراته بل من كل حالة يجد
فيها نفسه — وليس في هذا ما يدهش اذا تذكرنا ان الطبيعة البشرية تنفر من العيشة الراتبة (اي
التي على رتيقة واحدة) وتميل الى التغيير المستمر — والسامة هي السم القاتل الذي ينغص
عيشة الانسان بل هي المعول الذي يهدم كل سعادة في هذه الحياة — فالفيلسوف يري في العيشة
ما يعجبه وما لا يعجبه ولكنه ينظر الي كل ما حوله نظرة تخترق الى ما وراء المنظور ويري للحياة
معني غير المعني الذي يراه الرجل العادي — لذلك لا تجد السامة الي نفسها سبيلا

(b) وقف الأمير أمام قصر الحمراء فرأى سماء تطارل السماء وطودا يناطح الجوزاء وهضبة تشرف على الهضاب وسحابة تمر فوق السحاب وجبلا تجسر عن قمته العيون وتضل في جوانبه الظنون وحصنا تنقاصر عنه يد الأيام وتتهافت من حوله السنون والأعوام ثم دخل فاذا ملك كبير رجلة و حرير و قباب تفضي إليها النجوم بالاسرار و أبراج تنزلق عن سطوحها يد الاقدار وصحون مفرشة بالوان الحصباء كأنها الرياض الزهراء وجدوان صقيلة ملساء تصف ما بين يديها من الاشياء كما تصف المرأة وجه الحسناء وكأن كل جدار منها لجة متلاطمة الامواج يحبسها عن الجريان لروح من زجاج فمشي يقلب نظر العظة والاعتبار بين تلك المشاهد والآثار ويتنغم في نفسه بقول القائل :

وقفت بالعمراء مستعبرا معتبرا اندب اشتانا
فقلت يا حمراء هل رجعة قالت وهل يرجع من ماتا
فلم ازل ابكي علي رسمها هيهات يغني الدمع هيهات
كأنما آثار من قد مضوا نواب يندب نوابنا

(c) ان حب الحرية والاستقلال صفة طبيعية عند جميع اهل الوب و بالخاص عند القبائل العربية — فانهم لا يباليون باهراق دمائهم و إتلاف اموالهم في سبيل المحافظة علي حريتهم وهي مزية محفوظة عندهم علي تعاقب الدهور بصفتها الطبيعية دون ان يطرا عليها اقل تهذيب يقتضيه تقلب الزمان واختلاف الاحوال اذ انذا لو نظرنا الي الفضائل العربية التي تجذب القلوب بمحاسنها وقدرناها حق قدرها فلا يجب علينا ان نغفل عما يتخللها من العيوب التي لا توافق الآداب العصرية و اخصها صفات الغش والخداع والمراغة وسوء المعاملة وكان من الافضل ان يدخل التهذيب في اخلاق العرب العصريين علي مقتضى تنوع الاطوار لتكون في اعلي درجات الكمال لا يشوبها اقل نقيصة ولا ادني رذيلة

(d) اجمع كتاب العصر في مشارق الارض ومغاربها علي لزوم تعليم البنات وهذا لا مشاحة فيه ولا جدال كيف لا وقد جاء في حديث الشريف " تعليم العلم فرض علي كل مسلم ومسلمة " واثبتت التجارب فوائد تعليمهن بما لا حاجة معه الي زيادة ايضاح وانا موافقة لهم علي ذلك كل الموافقة لكنني اعترض علي الاختصار في تعليم البنات علي بعض العلوم والفنون والاشغال اليدوية دون تعليمهن ما هو ضروري لهن بعد خروجهن من المدرسة وخصوصاً بعد صيرورتهن ربات بيوت من آداب المعاشرة والاخلاق و فن تدبير المنزل والتفصيل والخياطة المتقنين وطبخ الطعام وكي الثياب وما شاكل ذلك مما يلتزمهن وتوقف عليه راحتهم وسعادتهم وراحة ازواجهن واولادهم في مستقبل حياتهم وتوفير اموال كثيرة ينفقنها في هذا السبيل من في غني عنها لو كن يعلمن ذلك

(e) ليست الخطابة في المجالس النيابية من الهنات الهيئات — والفارق بعيد بينها وبين الكلام في الجماعير — فالكلام الا جوف والصيغ الخلاطة والعبارات الطنانة والعود البراقة كلها علة زائفة بين جدران المجالس النيابية — والخطيب البرلمان يحد نفسه امام معارضي متحفزين في كل حين لمقاطعته و قطع سبيل الكلام عليه فاذا لم يكن الخطيب ذا بديهة حاضرة خانه المنطق وتبخرت اقواله في الهواء — و اذ كان موقوف الخطابة رهيبا فكم من خطباء كانوا بالامس يهزون اعداء المنابر فلما احترتهم قاعة المجلس النيابية وصعدوا الي منبر الخطابة فاذا بهم قد ارتج عليهم — وكم من محامين كانت تدري امواتهم في قاعات المحاكم خفتت امواتهم في قاعات المجالس النيابية

ARABIC LANGUAGE.

PAPER 2.

Time allowed—2 hours.

Maximum marks 65.

Translate into Arabic, adding all vowel-signs, &c.:—

The mosque of Al-Azhar was founded in the year A. D. 970 by Jawhar, the general of the Fatimid Sultan Abu Taimm Ha'add, the year following his occupation of Egypt and immediately after the building of the new capital city Al-Kahirah, where his troops were quartered, the mosque being intended for the use of the troops. Two years later it was opened for services. The mosque was enlarged from time to time by the Fatimid Sultans after the transfer of their capital to Cairo, it was liberally endowed and a flourishing school was developed within its precincts. During the centuries, which followed many rulers added to the building and endowment, and the reputation both of the sanctity of the mosque and the excellence of the school came to be widely acknowledged throughout the world of Islam. As the glory of many of the older institutions, once famous centres of learning, began to fade as a result of the ravages wrought by the Mongol invasion in the East and of the decline of Islam in the West, the school of Al-Azhar rose to a position of the first importance ; and thus for centuries it has maintained its place as the leading Muslim educational institution and has attracted students from all Muslim lands. Various attempts have been made from time to time to reform both the curriculum and methods of study of the Azhar, but always with indifferent success.

ARABIC LANGUAGE.

PAPER 3.

Time allowed—2 hours.

Maximum marks 70.

Write an essay in Arabic on *one* of the following subjects :—

- (a) The importance of the study of pro-Islamic poetry.
- (b) The Quran and Classical Arabic.
- (c) Hadith literature.
- (d) Sheikh ' Abdul Qadir al-Jilani.
- (e) Imam Abu Hanifah.

ARABIC CIVILIZATION.

PAPER 1.

Time allowed—3 hours.

Maximum marks 100.

(Candidates should attempt Question 1 and not more than five of the remaining questions.)

(The number of marks carried by each question is indicated at the end of the question.)

1. *Either, (a)* Show, on the outline map* provided, the caravan-route from Mecca and Medina to Syria, pointing out the position of Badr. Describe the battle of Badr, and estimate its influence on the later history of Islam. 20
- Or, (b)* Give an account of the Caliphate of 'Umar I, discussing fully his main contribution to the history of Islam. Show, on the outline map* provided, the Muslim Empire at the end of his Caliphate, showing the territory conquered during his rule. 20
2. Sketch the character of 'Abdu'l-Malik and discuss fully the chief causes of his success in re-establishing the power of the Umayyads against their adversaries. 16
3. Who were the Khawarij ? Give an account of their origin and describe the part played by them in the history of Islam. 16
4. Mention the chief dogmas of the Ismailis. Give a short account of their rise and fall, and discuss their influence on the political history of Islam. 16
6. Consider briefly the Persian influence at the 'Abbasid court, and explain how it contributed to the overthrow of the dynasty. 16
6. Who was 'Abd-al-Uahman-al-Dakhil ? Describe his character and achievements and compare him with Abu Ja'far al-Mansur as a founder and builder of an empire. 16
7. Discuss fully the causes of the fall of the Muslim power in Spain. 16
8. What do you understand by the Shu'ubiyya movement ? How did it influence the political and literary development of the Arabs ? Discuss fully. 16
9. Give an account of the life and teaching of Sheikh Muhammad 'Abdu of Egypt. Discuss his influence on the spread of modernism among Muslims. 16
10. Consider briefly the main points of the Mu'tazilite controversy. 16

ARABIC CIVILIZATION.

PAPER 2.

Time allowed—3 hours.

Maximum Marks—100.

(Candidates should attempt not more than six questions. All the questions carry equal marks.)

1. How far can the pre-Islamic poetry of the Arabs serve as a source of information regarding the various aspects of their history? Discuss the question whether these poems are genuine.
2. Give a short history of the collection of the Qur'an. Describe the special features of its style and discuss its influence on Arabic literature in general.
3. Discuss fully the statement:—'Hadith and the Qur'an had been the cause of all the scientific activities of the Arabs under the 'Abbasids.'
4. Trace the origin and growth of biographical literature in Arabic, and consider the justice of the following quotation:—^c There is no nation, nor has there been any, which, like the Arabs, has during twelve centuries narrated the life of every man of letters.'
5. Give a short biography of Abu Nuwas. Discuss the chief merits and demerits of his poetry and consider how far it reflects the court life of the period.
6. Who were the Ikhwan-al-Safa? Give their main principles and discuss their contribution to Arabic literature.
7. Give an account of al-Biruni, mention *three* of his principal works, and discuss their importance in Arabic literature.
8. Give a short history of the development of Hadith literature. Mention the names of the most important collections of Hadith. Describe their special features and discuss their reliability.
9. 'The greatest scholar and the most original genius of Moslem Spain is Abu Muhammad 'Ali Ibn Hazm.' Discuss fully.
10. Which is the most important story-book in Arabic? What are its chief sources? How far does it portray the life of the period to which it is ascribed? How far did Arabic light literature influence European light literature? Discuss fully.

PERSIAN LANGUAGE.

PAPER I.

Time allowed—3 hours.

Maximum Marks—65.

(The number of marks carried by each question is indicated at the end of the question.)

Translate into English :—

A

- (a) د که بکوشی و خود را از نظر خود بیرونی و بر ذاتی اقبال کنی و به تحقیقی اشتغال نمایی که درجات موجودات همه مجالی جمال دارند و مراتب کائنات مرئی کمال در و برین نسبت

چندان مداومت نمائی که با جان تو در آمیزد و هستی تو از نظر تو برخیزد اگر بخود روی آویی روی
 بار آورده باشی و چون از خود تعبیر کنی تعبیر از کرده باشی مقید مطلق شود و انالعلق هو العلق —
 کی باشد کی لباس هستی شده شق تابان گشته جمال وجه مطلق
 دل در سطوات نور او مستهلک جان در غلبات شوق او مستغرق

(b) عادت طبیعت ثانوی است همیشه کسی بکاری عادت کرد دیگر باین آسانیا نمی تواند
 ترک کند علاج منحصراً باین است که بترتیب مخصوصی بمرور زمان کم کند تا رقتیکه بکلی از سرش
 بیفتد و نیز همان طور که ممکن است عادتی را از سر مردم انداخت همان طور هم ممکن است عادتی
 را از سر سنگ و کلوخ و آجر انداخت مثلاً یک مریضخانه حاجی شیخ هادی مجتهد مرحوم ساخت
 موقوفاتی هم برای آن معین کرد که همیشه یازده نفر مریض در آنجا باشد تا حاجی شیخ هادی
 حیات داشت مریضخانه بیازده نفر مریض عادت کرد همیشه حاجی شیخ هادی مرحوم شد طلاب
 مدرسه به پسرانش گفتند ما رقتی تو را آقا میدانیم که موقوفات مریضخانه را خرج ما کنی حالا
 ببینید این پسر خلف ارشد چه کرد ماه اول یک نفر از مریضها را کم کرد ماه دوم دو تا ماه سوم
 سه تا و همین طور تا حالا که عده مریضها به پنج نفر رسیده و کم کم بحسن تدبیر آن چند
 نفر هم تا پنج ماه دیگر از میان خواهد رفت پس ببینید که با تدبیر چطور میشود عادت را از سر همه
 کس و همه چیز انداخت حالا مریضخانه که بیازده مریض عادت داشت بدین اینکه ناخوش بشود
 عادت از سرش افتاد چرا ؟ برای آنکه آن هم جزو عالم کبیر است و مثل انسان که عالم صغیر است
 میشود عادت را از سرش انداخت -

B

ای ساربان آهسته ران کارم جانم میرود	ران دل که با خرد داشتم با دل ستانم میرود
من مانده ام مهجور از بیچاره و رنجور از	گوئی که نیشی دور از در استخوانم میرود
گفتم به نیرگ و فسون پنهان کنم راز درون	پنهان نمی ماند که خون بر آستانم میرود
بگذشت یار سرکشم بگذشت عیش ناخوشم	چون مجرمی پر آتشم کز سر دخانم میرود
با این همه بیداد اوین عهد بی بنیاد او	در سینه دارم یاد او تا بر زبانم میرود
محمل بدار ای ساربان تندپی مکن با کاروان	کز عشق آن سرو روان گوئی روانم میرود
نقتم بگیرم تا ابل چون خر فرو ماند بگل	وین نیز نتوانم که دل با کاروانم میرود
باز آبی و بر چشم نشین ای دلفریب نازنین	کاشوب و فریاد از زمین بر آسمانم میرود
شب تا سحر که نغمم و اندرز کس می نشنوم	این ره بقاصد میروم کز کف عنانم میرود
در رفتن جان از بدن گویند هر نوعی سخن	من خود به چشم خروشتن دیدم که جانم میرود

PERSIAN LANGUAGE.

PAPER 2.

Time allowed—2 hours.

Maximum marks—65.

(The number of marks carried by each question is indicated at the end of the question.)

Translate into Persian :—

(a) The *Kawa* of the New Series which began on 22 January 1920 is almost entirely literary and contains numerous articles of the greatest value and interest. The Persian colony in Berlin, though comparatively small, included several men of great intellectual distinction and, though ardent patriots, keenly alive to the national faults, and eager to absorb what was best of European learning. The special characteristic of the best German scholarship is its sobriety, thoroughness, painstaking accuracy, and exhaustive examination of relevant material from all available sources. This steadying influence is exactly what the Persians, with their tendency to ingenious but rash conjectures and premature theories, most need. 32

(6) The Umayyad monarchy in Spain had also to reckon with the fanaticism of its Christian subjects and with a formidable Spanish national party eager to throw off the foreign yoke. Extraordinary energy and tact were needed to maintain authority over these explosive elements, and the credit is mainly due to the bold adventurer from whom even his enemies could not withhold a tribute of admiration. 'The Falcon of Quraysh,' said the Caliph Mansur to his courtiers, 'is Abdur-Rahmao b. Mauawiyah, he who traversed alone the deserts of Asia and Africa, and with no weapons except judgment and resolution subdued his enemies and founded a great empire. Such a feat was never achieved by any one before.' 33

PERSIAN LANGUAGE.

PAPER 3.

Time allowed—2 hours.

Maximum marks—70.

Write an essay in *Persian* on any one of the following subjects :—*Either, (a) Firdawsi and his services to Persian history and literature.**Or, (b) The cultural value of Persian poetry.**Or, (c) The development of Islamic mysticism.**Or, (d) Mther Riza Shah Pahlawi or Shah Abbas the Great.**Or, (e) The Babi-Bahai movement in Persia and its influence on literature.*

PERSIAN CIVILIZATION.

PAPER 1.

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt Questions 1 to 3, and not more than *three* of the remaining questions. All the questions carry equal marks.)

1. Show on the outline map' provided—
 - (a) the territories under the sway of the Ziyarids,
 - (b) the capital of Sultan Husain, King of Khurasan,
 - (c) the chief centre of culture in Persia at the time of Tamerlane's invasion,
 - (d) Tamerlane's capital,
 - (e) the capital of Adharba'ijan when Timur occupied it.
2. State the circumstances which led to the growth and development of 'the Persian Renaissance.' and estimate the influence of this movement on the history of the country.
3. Compare the views of Browne and Shibli on the value and historical importance of the Shah Nama.
4. 'Persia has been a land of religious movements or experiments.' Comment. Give a concise account of some of the important religious movements.
5. Give an account *either* of Mir Anis Nava'i or of Sultan Mahmud's patronage of letters.
6. Compare and contrast the Arab and Mongol invasions of Persia.
7. Write notes on any *five* of the following:—(a) Qabus Nama, (b) Abu Sa'Id Ibn Abi'l-Khair, (c) Mas'ud-i-Sa'd-i-Salman, (d) Nasir-i-din Tusi, (e) Silsilatu'dh-Dhahab, (f) Siyasat Naina-i-Nizamu'l-Mulk, (g) the Safar Nama of Nasir Khusraw.
8. Give an account of the works of *either* Avicenna or Khayyam.
9. Give a brief account *either* of the reign of Shah Abbas the Great or of the career of Jamal-ud-Din Afghani.

PERSIAN CIVILIZATION.

PAPER 2.

Time allowed—3 hours.

Maximum Marks—100»

(Candidates should attempt Questions 1 to 3, and not more than *three* of the remaining Questions. All the questions carry equal marks.)

1. Give a brief account of the principal poets and writers of the time of Timur.

2. Discuss the works of any *two* of the following poets : — Anwar! Khaqani, Nidhami of Ganja, and Dhahir of Faryab.

3. *Either*, (a) Review the history of Persia under the Qajar dynasty.

Or, (b) Discuss the development of architecture and art under the Safavi dynasty.

4. Compare the Seljuqs and the Mongols as patrons of arts and letters.

5. Estimate the importance of the *Matlām* of Jalalu'd-Dīn Rumi as a compendium of ethical or Sufi doctrines. What are some of the chief characteristics of this work? How does it compare with the *Mantiqu't-Tair* of 'Aṭṭār?

6. Write notes on any *five* of the following ;—

(۱) مطلع السعدين

(۲) روضة الصفا

(۳) ظفر نامه نظام شامي

(۴) عالم آراي عباسي

(۵) ناسخ التواريخ

(۶) پروردگار

(۷) مجالس المفائس

(۸) انوار سهيلي

7. Explain the term *Khamsa*. Give an account of some of the poets who composed a *Khamsa*. State how far they were successful in achieving this object. Mention the works comprising their respective *Khamsas*.

8. Give an account of some of the most talented Persian poets who were^x attracted to India during the sixteenth and seventeenth centuries.

9. Briefly consider the main aspects of the present-day economic life of Iran.

SANSKRIT LANGUAGE.

PAPER 1.

Time allowed—2 hours.

Maximum Marks—65.

1. Translate into English ;—

(a) पृच्छे तदेनो वरुण दिदृक्षू-
 पो एमि विवितुषो विपृच्छम् ।
 समानमिच्छे कवयश्चिदाहु-
 र्यं ह तुभ्यं वरुणो ज्ञयीते ॥

Parse दिदृक्षू and विपृच्छम्. What are the various ways of forming the infinitive in Vedic? Why is the word वरुण differently accented in the first and

fourth *pdda* respectively. D e r i चिकितुषः. c o u n t for the accent of all the verbs in this verse.

(b) इन्द्रो वै वृषं हत्वा सर्वा विजितौर्विजित्वाब्रवीत्प्रजापतिमहमेतदसानि यत्त्वमहं महानसानोति । स प्रजापतिरब्रवीदथ कोऽहमिति । यदेवैतदवोच इत्यब्रवीत् । ततो वै को नाम प्रजापतिरभवत् । को वै नाम प्रजापतिः । यन्महानिन्द्रोऽभवत्तन्महेन्द्रस्य महेन्द्रत्वम् ॥

(c) तत्को वृषः । मघ इति नैरुक्ताः । त्वाद्रोऽसुर इत्यैतिहासिकाः । अपां च ज्योतिषश्च मिश्रीभावकर्मणो वर्षकर्म जायते । तन्नोपसार्धेन युद्धवर्णा भवन्ति । अहिं वत् खलु मन्त्रवर्णा ब्राह्मणवादाश्च । विद्वद्ग्रा शरीरस्य स्तोतांसि निवारयांचकार । तस्मिन्हते प्रसस्यन्दिर आपः । तदभिवादिन्येषर्गभवति ।

(d) ये जात्या लघवः सदैव गणनां याता न ये कुञ्चित्-
त्पद्मामिव विमर्दिताः प्रतिदिनं भूमौ निलीनाश्चिरम् ।
उत्तिष्ठताश्चपलाशयेन मरुता पश्यान्तरिक्षे सखे
तुङ्गानामुपरि स्थितिं क्षितिभृतां कुर्वन्त्यमी पांसवः ॥

How do you derive अन्तरिक्ष ? Is it possible to spell the word differently ?

(e) परुसा सक्कश्चबन्धा पाउश्चबन्धा वि होइ सुडमारो ।
पुरिसमहिलाण जेत्तिअमिहन्तरं तेत्तिअमिमाणं ।

(f) क्षीणसारं सस्यमोषधयो बन्धा न फलवन्तो वनस्यतयः क्लीबा मेघा भिन्नस्तीतसः सवनयः
पङ्कशीषाणि पल्लवानि निःस्यन्दान्धुत्समण्डलानि विरलीभूतं कन्दमूलफलमवहीनाः कथा गलिताः
कल्याणोत्सवक्रिया बहुलीभूतानि तस्करकुलान्धुत्समभक्षयन्प्रजाः पर्यलुण्ठितस्ततो बलाका-
पाण्डुराणि नरशिरःकपालानि पर्यहिण्ठन्त शुष्काः काकमण्डल्यः शून्योभूतानि नगरग्रामखर्वड-
पुटमेदनादीनि ॥

SANSKRIT LANGUAGE.

PAPER 2.

Time allowed—2 hours.

Maximum Marks—65.

Translate freely into idiomatic Sanskrit:—

(a) A hook is essentially not a talked thing, hut a written thing, not with the view of mere communication, but of permanence. The book of talk is printed only because its author cannot speak to thousands of people at once; if he could, he would,—the volume is mere multiplication of his voice. But a book is written, not to multiply the voice merely, but to preserve it. The author has something to say which he perceives to be true and useful or helpfully beautiful. He is bound to say it clearly, and melodiously if he may ; clearly, at all events.

(b) Then such questions as 'Who are you ? Who am I ?' are useless. Thou art a monarch, this is a palanquin, these are the bearers, these are thy followers ; yet it is not true that these are thine. This palanquin in which thou art seated is made of timber got from trees. Then tell me, what name, tree, timber, or palanquin, shall be applied to it, O King? The people shall not say that their monarch is seated on a tree or on a timber,

but they shall say that he is in the palanquin. The artificial assemblage of pieces of timber is called the palanquin; judge yourself, therefore, O King, in what the palanquin differs from the wood. Apply this argument to thee and me. A man, a woman, a cow, a goat, a horse, a bird, a tree, are names given to various bodies, which they assume on account of their primitive actions. Man is neither a god, nor a man, nor a beast, nor a tree; these are the various shapes which he assumes on account of his acts.

SANSKRIT LANGUAGE.

PAPER 3.

Time allowed—2 hours.

Maximum Marks—70.

Write an essay in Sanskrit on any *one* of the following subjects :—

(a) The value of modern critical and comparative methods in Sanskrit study and research.

(b) Why should we study Sanskrit ?

(c) सुखाद्दुतरं दुःखं जीविते नात्र संशयः ।

(d) न मानुषाच्छ्रेष्ठतरं हि किंचित् ।

SANSKRIT CIVILIZATION.

PAPER 1.

Time allowed—3 hours'

Maximum Marks—100.

[Candidates should attempt not more than five questions. All the questions carry equal marks.]

1. 'It has been suggested, with more or less clearness, that for profane as opposed to sacred literature Sanskrit was originally *not* employed.' Criticize this statement, giving some account of the controversy as to the language in which secular literature was first composed in India.

2. How does the epic and classical literature differ from the Vedic in point of form, content, and treatment ? Is the former a direct continuation of the latter, or does it make a fresh start ?

3. Show in what respects the style, literary form, and the prevailing religio-philosophic outlook of the older Upanisads (like the *Brhadaranyaka* and the *Chhandogya*) differ from those of the later Upanisads (like the *Katha* and the *Svetasvatara*).

4. 'The *Mahabharata* in its present shape contains an epic nucleus, having a historical background, which must have undergone stages of development since the time it assumed definite shape.' Explain and discuss. Mention the successive stages of development.

8. 'The *Bhagavadgita* is poetic, mystical, and devotional rather than logical and philosophical. It contains many discordant ideas and to try to unite them all in a consistent system is to do violence to its spirit It is practical in its attitude, seeking religious or philosophical truth not for its own sake but as a means of human salvation.' Discuss and criticize. (N.B.—This question should *not* be attempted unless the candidate can cite from memory passages from the text to support his statements and arguments.)

6. Give a concise survey and general estimate of the Sanskrit Kavya literature. How would you interpret the Vikrama legend in this connexion? What light is thrown on the history of this literature by early Indian inscriptions?

7. Discuss the authenticity of the thirteen Trivendrum plays attributed by their discoverer to Bhasa

8. Write a concise note on the Sanskrit Romance, sketching its origin, development, and general characteristics. Distinguish carefully the two species known as the Katha and the Akhyayika. How does the Campu differ from these?

9. Relate briefly the story of the migration of Indian fables and fairy tales. Give some illustrations to show the changes which tales have undergone in the course of such wanderings from country to country.

10. Discuss the possible foreign influence upon Sanskrit literature, pointing out the nature and extent of the influence, and the branches of literature so influenced.

SANSKRIT CIVILIZATION.

PAPER 2.

Time allowed—3 hours.

Maximum Marks—100,

[Candidates should attempt Question 1 and not more than *four* of the remaining questions. All the questions carry equal marks.]

1. Either, (a) Explain how the principal nations and the tribes of India were arranged in the Mahabharata War, and show, on the outline map' provided, their respective positions.

Or, (b) Explain, with the help of the outline map' provided, Grierson's theory of the outer and inner band of Indian languages.

2. 'The older hymns of the *Rgveda* contain relics of the childlike and naive conceptions then prevailing such as may also be traced among the Teutons and the Greeks.' Comment on the above, pointing out some of the striking similarities of thought between the eastern and the western branches of the Indo-Germanic people which may serve as a proof of their being genetically related.

3. What is the philosophical import of the Vedic ritual of the Sacrifice? What parallelisms in theory and practice are observable between the Vedic and the Avestic sacrifice?

4. Write a detailed note on the Vratyas.

5. 'Two types of civilization are embalmed in the *Mahabharata*' (HOPKINS). Explain and illustrate this remark,

6. Trace the history of the doctrines of Karma and Transmigration, and indicate their influence on the evolution of Indian thought and culture.

7. Outline the development of the religious and the philosophical ideas in the Sanskrit epics,
8. Define Tantricism. Explain its origin, and show how much it contributed to the final submersion of Buddhism in its parent religion. Where do you locate the centre of Tantricism ?
9. Give a short account of the Bhakti schools of ancient and medieval India.
10. Evaluate the Hindu Theory of the State (as propounded in the *Dharma-sastra*), and say how far it contributed to the stability of Hindu society.

PALI LANGUAGE.

PAPER 1.

Time allowed—2 hours.

Maximum marks—65.

(The number of marks carried by each question is indicated at the end of the question.)

1. Translate into English :—

Tatha hi herannakaphalake thapitam kahapanarasim eko ajatabuddhi-darako eko gamikapuriso eko heranniko ti tisu janesu passamanesu, ajatabuddhidharako kahapananam cittavicittadighacaturassaparimandalabhavamattnin eva janati ; idam manussanain upabhogaparibhogam ratanasammattan ti na janati. Gamikapuriso cittavicittadibbavam janati, idam manussnam upabhogaparibhogam ratanasammattan ti ca; ayam cheko, ayam kuto, ayam addhasaro ti imam pana vibhagam na janati. Ileranniko sabbe pi to pakare janati, jananto ca kahapanam olokta pi janati, akotitassa saddani sutva pi gandham ghayitva pi rasam sayitva]ji hatthcna dharayitva pi: asukasmim n;lma game va nigame va nagare va pabbato va nadltiro Tft kato ti]ji asukacariyena kato ti vijanati; ovam-sampadam idam veditabbam. SaSKa hi ajatabuddbino darakassa kahapanadassanaru viya hoti niladivasona arammanassa upatthanakarammatagahauato. ViBfianani gamika-^sa purisnssa kahapanadassanam iva hoti niladivasena aramuianakaragahanato, uddham pi ca lakklianapativcdhasauipapanato. PaiiBa heranf\$ikassa kahapatiadassanam iva hoti, nlladivasena arammanakaram galieta lakklianapativodliam ca papetvil tato uddham pi maggapatubhavapapanato.

14

2. Translate into English :—

Nekkhammam adbhimuttassa pavivekan ca cetaso I
 avyapajjhadhimuttassa upadanakkhayassa ca ||
 tanhakkhayadhirnuttassa asammohan ca cetaso I
 disva ayatanuppadam samma cittam vimuccati»
 Tassa sammavimuttassa santaoittassa bhikkhuno I
 katassa paticayo n' attbi karamyaK ca na vijjati. II
 Selo yatha ekagbano vatcna na samirati, I
 evam rupa rasa sadda gandha phassa ca kevala ||
 ittha dhainma anittha ca na pavedhenti tadino. I
 Thitham cittam vipparnuttam vayafi c' assanupassatiti. II

10

3. Translate into English :—

Atha kho Bhaj?ava: ' Nando asavanam kbaya anasavafi cetovimuttim pafifiavimuttim ditthe va dhamme sayam abhiKka sacchikatva upasampajja viharatl' ti veditva tayam velayam imaip udanam udancsi:
 Yassa nittinno paKko maddito kama-kantako, I
 mobakkhayam anuppatto sukhadukkhesu na vedhatl—ti. II

Ath' ekadivasam bhikkhu tarn ayasmantam pucchimsu: " Avuso Nanda, tvaih 'ukkkhanthito ' mhi' ti vadesi, idani te kathan " ti. "N'atthi me avuso gihibbavaya alayo " ti, Tarn sutva bhikku : " abhutam ayasma Nando katheti, annam vyakaroii ; atitadivasesu ' ukkanthito ' mhl' ti vatva idani' n' atthi me gihibbavaya alayo ' ti katheti " ti gantva Bhagayato tarn attham arocesum. Bhagava : " Bbikkavo atitadivasesu Nandassa attabhavo ducchan-nagehasadiso abosi, idani succbannagehasadiso jato " li vatva ima giitha abbasi:

Yatha agaram ducbannam vutthi samativijjhati, I

evam abhavitam cittaip rago na samativijjhati; ||

Yatha agaram succhannam vutthl na samalivijjhati, I

evam subhavitam citfcam rago na samativijjhati ti. 13

4. Translate into English :—

Puṇṇika—Kassa brahmaṇa tvam bhlto sada ndakam otari I

vedhamanehi gattehi sitam vedayase bhusam. ||

Brahmano—Jfinanti ca tuvam bhoti punnike paripuccliassi I

karontam kusalam kammam rudhautam kamma papakam.

Yo ca vuddho va daharo va papakam pakubbati I

udakabhisecana so pi papakamma pamucceati. II

Punnika—Ko nu te idani akkhasi ajanantassa ajanato I

udakabhisecana nama papakamma pamuccati. II

Saggaip nunam gamissanti sabbe mandukakacchapa I

naga ca surnsumara ca ye c ' anne udukecara. II

Orabhika sukarika maccliika migabandliaka I

cora oa vajjhagbata ca ye c ' anne papakammino II

udakabhisecana te pi papakamma pamuccare. I

Sace ima nadiyo to papam pubbekatam vaheyyum I

punnam p' ima vaheyyuni tena tvam paribahiro assa. ||

Yassa brahmaṇa tvam bhito sada udakam otari !

tain eva bralitne ma kasi ma te sitam chavinī hane. ||

Brahmano—Kumaggam patipannam mam ariyamaggam samanayi I

udakabhisecanam bhoti imam satam dadami te.

Punnika -Tuyh ' ova satako hotu naham icchami satakam. I

Sace bhayasi dukkhassa sace te dukkham appiyam

ina kasi papakam kammam avi va yadi va raho. I

TJpehi buddham saranam dhammam sangharS ca tadinam I

samadiyahi sllani tan te atthaya liehiti. II

14

6. Translate into English :—

Eulupako kira bhikku bhunjitukamo geham pavisitva nisidi. Tain disva adatukama gharam : ' tandula natthi' ti bhananti tandule aharitukama viya pativissakagharam gata. Bhikku antogabbharn pavisitva olovento kavatakone uccham, bhajane gulam, patike Icnamacchaphale, kubhiyam tandule, ghate ghatam disva nikkhamitva nisldi. Gharam: ' tandulo nalatthan' ti agata. Bhikku : ' upasike, ajja bhikkha na sampajjissati ti patigace ' eva nimittam addasan ' ti aha. ' Kim bhante ' ti. ' Kavatakone nikkhittam ucchum viya sappam addasaip, tarn pariharissaml ti olovento bbajane thapitam gujapindam viya pasanain, leddukena pahatena sappena katam pitake nikkhittalonamaceha-phalasadisam phanam, tassa tarn leddum damsitukamassa kumbhiya tandula-sadise dante, ath ' assa kupitassa ghate pakkhittaghatasadisam mukhato nik-khamantam visamissakam khelan' ti. Sa : ' na sakka mundakam vancetun ' ti ucchum datva odanam pacitva ghatagulamacchehi saddhim sabbam adasi. 14

PALI LANGUAGE,

PAPER 2.

Time allowed—2 hours.

Maximum marks—65.

(The number of marks carried by each question is indicated at the end of the question.)

1. Translate into Pali:—

- (a) Be merciful to those that struggle; have compassion upon the sufferers; pity the creatures who are hopelessly entangled in the snares of sorrow.
- (6) Even as the dense and solid rock
Cannot be stirred by wind and storm ;
Even so the wise cannot be moved
By voice of blame or voice of praise.
- (c) A stag once proudly said to himself that if his legs had been similar to his horns, no animal on the earth would have been able to equal him in beauty.
- (d) " You may oppress me, you may deprive me of all properly, but you cannot take away from me my attachment to the cause of Truth".
- (e) Friends will swarm round a man by hundreds in days of prosperity, but in adversity they will leave him.
- (f) But he who is victorious should remember the instability of earthly things. His success may be great, but be it ever so great, the wheel of life may turn again and bring him down into the dust.
- (g) The Truth is not arbitrary or a matter of opinion, but it can be investigated, and he who earnestly searches for the Truth will find it. The Truth is hidden to the blind, but he who has the mental eye sees the Truth.

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2. Translate into Pali ;—

It is as if two men, the one blind from birth and the other a cripple, were desirous of going travelling. And the man blind from birth were to say to the cripple as follows: "See here! I am able to use my legs, but I have no eyes with which to see the rough and the smooth places in the road". And the cripple were to say to the man blind from birth as follows: "See here! I am able to use my eyes, but I have no legs with which to go forward and back". And the man blind from birth, pleased and delighted, were to mount the cripple on his shoulders. And the cripple sitting on the shoulders of the man blind from birth were to direct him, saying, "Leave the left and go to the right; Leave the right and go to the left".

Here the man blind from birth is without power of his own, and weak, and cannot go of his own impulse or might. The cripple also is without power of his own, and weak, and cannot go of his own, impulse or might. Yet when they mutually support one another it is not impossible for them to go.

In exactly the same way Name is without power of its own, and cannot spring up of its own might, nor perform this or that action. Form also is without power of its own, and cannot spring up of its own might, nor perform this or that action. Yet when they mutually support one another it is not impossible for them to spring up) and go on,

30

PALI LANGUAGE.

PAPER 8.

Time allowed—2 hours.

Maximum Marks—70.

Write an essay *in Pali* on any *one* of the following subjects :—

- (a) The evolution of the conception of *Dhamma* in Buddhism.
- (b) Consistency of the *Anatta* doctrine with the Kamma theory,
- (c) Buddhist Congregational Prayer (Confessional).

PALI CIVILIZATION.

PAPER 1.

Time allowed 3 hours.

Maximum marks 100.

(Candidates should attempt Question No. 1 and not more than four of the remaining questions.
All the questions carry equal marks.)

1. Write short notes on any *five* of each of the following groups:—

(a) (1) The Dhammapada, (2) The Dattavamsa, (3) The Udana, (4) The Milinda Panha, (5) The Patimokkha, (6) The Buddhaghosuppatti, (7) The Abhidhammatthasāṅgaha and (8) The Mahāvamsa.

(b) (1) Sariputta, (2) Itśing, (3) Asoka, (4) Mahapajapatigotami, (5) Anāthapindika Gāhapatī, (6) Dutthagamani Abhaya, (7) Ledi Sadaṃ and (8) Makkhali Gosaḷa.

2. State the views of Buddhist scholars regarding the origin and development of Mahāyāna Sanskrit Literature. Which of them, do you believe to be reasonable and why?

3. What is the general nature of the contents of the Pali Vinaya? Does it differ in kind from its Mahāyāna counterpart?

4. Explain the term Saṃgīti. What circumstances led to the holding of the first Saṃgīti? What importance would you attach to this convocation from the point of view of fixing the Pali canon?

5. Is the formula of Dependent Origination (Paticcasamuppāda) a peculiar discovery of the Buddha? If not, who originated it and what is Gotama's contribution to it?

6. Write a short note on the date, authorship and subject matter of the Sasanavamsa or the Kathavatthu.

7. Is the Dīgha Nikāya a composite work? Find out by an analysis of its suttas, the different strata in the literary material of the work. What chronological position between the Sutta and the Abhidhamma Piṭakas would you assign to this work?

8. Write a note on Mahinda's mission to Ceylon and the work of enlightenment and progress done by that great missionary.

PALI CIVILIZATION.

PAPER 2.

Time allowed 3 hours.

Maximum marks 100.

(Candidates should attempt Question No. 1 and not more than *four* of the remaining questions.
All the questions carry equal marks.)

1. In an outline map¹ of India mark the principal seats of Buddhist Learning and other chief places noted for Buddhist Antiquities. Explain the significance of *any two* as radiating centres of Buddhist culture and religion.

2. What light do the Nikayas throw on the arts and crafts existing in ancient India. Mention the principal ones and show how they helped the building up of Buddhist civilization.

3. Explain the following remark and say if you can subscribe to the view contained therein :—

"Buddhism is a religion of Eternity—the Brahmanical Nivratti Marga—and as such '**Anti-Social**.'"

4. Is Buddha's religion a religion of Prayer? If not, trace the different stages, which finally led to the introduction of the worship of the Buddha and the Botlhisatwas and prayers offered to them.

5. Is the connotation of the word "Dhamma" as introduced by Asoka in his "Edicts" a proper appreciation of Gotama's doctrines? Clearly explain the word "Dhamma" and mention the steps taken by Asoka for the propagation of his "Dhamma."

6. Write a short note on the exact implication of the word 'Ahimsa' (non-violence) as prominently mentioned by Gotama in his sermons. What were the immediate results of this doctrine of Ahimsa.

7. What contribution to Ethical-psychology is made by Buddhist Civilization? Are the various methods taught by Gotama in the matter of controlling and guiding the mind in agreement with modern psychology? What ideal type of mind does Gotama portray in the case of the Arhat?

8. What, according to Gotama's teachings, are the conditions of a healthy society? Are his teachings in this particular in consonance with modern social sciences?

Vernacular Literature.

(1) BENGALI.

No paper set in this subject as no candidate offered it.

(2)BURMESE,

Time allowed—3 hours.

Maximum marks—200.

(Candidates should attempt Questions 1 and 8 and not more than *four* of the remaining questions. All questions carry equal marks. Except where otherwise indicated, answers may be written in *either* English or Burmese.)

1. Turn the following passages into plain Burmese prose and estimate their value as poetical compositions:—

(a) အောက်မေ့ချေချေ။ ပြေကြောင်းဖြေလည်း။ တွေတွေလွမ်းဆွတ်။ မပြေတတ်ခဲ့။ လနတ်ပြည့်ဝန်း။ ချီရက်စွန်းဝယ်။ ရည်ညွှန်းကိုယ်စား။ ရစေသားဟု။ ရွှေလားသန္တာ။ လှရာရာကို။ မြူတာသွန်းမှတ်။ ရေပန်းသတ်နှင့်။ စွယ်ဓာတ်သရေ။ ဆံမွေသကျ။ စည်းခုံမြဝယ်။ မပျပျောင်းရုပ်။ လျှောက်စဉ်ချုပ်၍။ ကျွန်ုပ်သံညောင်း။ ပန်နက်တောင်းရှင့်။ တပေါင်းသဘင်။ မမြင်သည်ပ။ လွတ်မျှအသာ။ သည်အတာသည်။ စစ်မှာကြာပြန်ရဲ့လော။

(b) နှောင်းဖြစ်အလာ။ မိတေယျာလျှင်။ ရိန္ဒမာထား။ အသွားသုံးရွက်။ ခိုးလက်တံကိုင်း။ အပြိုင်ငါးကြိမ်။ အိမ်နှင့်တကွ။ ကျောက်မှပေါ်ထွက်။ ရွှေဘုံးဆက်သည်။ သန်လျှက်သီလဝင်။ နိဗ္ဗာန်ရှင်ကား။ မဂ္ဂင်ရှစ်တန်။ လမ်းမှန်ခရီး။ ရပ်ကြီးသာစည်။ ရောက်အံ့ရည်၍။ သုံးမည်ပရမေ။ ဗျာဓိတ်ချွေးသား။ သပြေကျွန်းသာ။ နောင်အခါဝယ်။ သညာသမုတ်။ ပညတ်ထုတ်သည်။ ရှင်ဥတ္တမကျော်။ ထေရ်မြတ်သော်လည်း။ အဟော်နောင်လာ။ ငါ့ရိုက်ရာကို။ သစ္စာဖူးငုံ။ ပွင့်အံ့တုံဟု။ ကိုးဂုဏ်ရှင်ပင်။ အံ့ချီးတင်သည်။ ငါလျှင်လည်းကောင်း။ မောမိလောင်းဟု။ ညွတ်ညောင်းတံဆိပ်။ နှုတ်ဖျာဒိတ်ဖြင့်။ တော်ခိုင်သေချာ။ နှုတ်ကြံကသည်။ မြို့စွာဖြင့်လိမ့်လမှတည်း။

2. Whom do you consider to be the greatest Burmese poet? Why? Give a critical estimate of his main works.

3. Which, in your opinion, is the best among the twelve old *Egyins*? Why? Contrast it with *Paleissa Egyin*.

4. Trace the origin and development of the *Yagan*. Whom do you consider to be the greatest *Yagan* writer? Write an appreciation of his masterpiece.

5. 'U Ponnya's plays are better enjoyed when read than when acted.¹ Discuss fully. Give quotations if you can.'

6. Whom do you consider to be the greatest woman author in Burmese literature? Mention her chief works and write an appreciation of the work you like best.

7. Give a sketch of the life and works of any *three* of the following authors:—(a) Thilawuntha, (b) Nat Shinaung, (c) Nawade, (d) Seinda Kyawthu.

8. Which, in your opinion, are the best specimens of Burmese prose? Criticize their style and estimate their contents.

(3) GUJARATI.

Time allowed—3 Hours.

Maximum marks—200.

Candidates should attempt Questions 1 to 3 and not more than *three* of the remaining questions. The number of marks carried by each question is indicated at the end of the question. Answers to be written *either* in English or Gujarati.)

1. Write critical and interpretative appreciations of *any three* out of the following pieces:—

(a)

જનની.

(પૃથ્વી) સદા હૃદયપાલાલું પ્રગટ પ્રેમવાત્સલ્યની
 સુદોર થકી ખેંચતી, સુભગ ગાનની ઊમિની
 અખંડિત પરંપરા સહજ નિત્ય રેલાવતી,
 સુરમ્ય નયનો તણ્યાં મૃદુલ જ્યોતિથી સ્પર્શતી,
 અનેક વર આશિષો હૃદય ઓમથી વર્ષતી,
 સમૃદ્ધિ મુજ આત્મને જનનિ શાન્તિથી અર્પતી.
 સદાય વિરમી ગયું હૃદયપાલાલું આ હવે,
 તુટી પરમ દોર એ પ્રગટ પ્રેમવાત્સલ્યની,
 શમ્યું અમૃતગીત એ, પુનિત નેત્ર દીપો ખુલ્યા,
 સુધાઝરણ વર્ષણો હૃદય ઓમનાં થંભ્યાં,
 સમૃદ્ધ મુજ આત્મને અસહ સાંપડી દીનતા ;
 અનેક પરિતાપનો અણુછતાં ભભૂકી ઊઠ્યાં.
 અનન્ત નભમાં લસે અગણ દિવ્ય તેજોમણિ,
 પરંતુ ગઈ તે ગઈ વિરલ જ્યોત વિદ્યુત કણી.

(b)

જે આઘ દિવ્ય સહુ વાદ્યનો કયાં તું વીણા !
 રાજે ભર્યાં મધુર તે સૂર આપોં જીણા ;
 ખેંચી વશી સુતનુ નારદકંઠ રાજે,
 આવી પછી સુરસમાનજ લોકભાજે.
 તે કયાં વસે મધુરવાદિની રમ્ય વીણા ?
 તહારા વિકાવ સઘળા પ્રણયચ્છબીના ;
 કે તું રહી લટકતી વનવૃક્ષડાળે ?
 ખેંચી તણે વિરતવાદિતને નિહાળે !
 તે કયાં વસે રિમત કરી ફરતીજ વીણા ?
 ઠેવાર તે મદભરી વળોં કાંઈ દીના ;
 ઠેવાર ભાવ ધરી નાચતોં ખોતોં વેરે,
 અન્યક્ષણે સદય તે થઈ આંસુ રેડે.

ગા તું ફરી અતુલ ગાયન એક વેળા,
હે દિવ્યવાદિની ! તુંને અમરો વરેલા;—
પૂરા સુષ્ટાય નહિં આજ સૂરો સતીના,
તે થાય શું લય હતી ન હતી થતી ના ?

(i) Give the name of the work in which this piece occurs ; give the context.

(ii) Do you find in this apostrophe to Narad's Vina an echo of a similar passage in an English poet's work ? If so, which ?

(iii) What other Gujarat! poet has addressed a similar invocation ? Where ?

(c)

શક્તિયોનો રાસ.

ઊગી આજ જગ આથમણી રાત કે ડોલે ડુંગરા રે લોલ :
ચગતા ડુંગર ડુંગર રાસ કે ગાજે કાળ ધુધરા રે લોલ.
કાજળ કાળાં આથમણાં કાંઈ પૂર કે ધૂમે ધરતી-ઉરે રે લોલ :
ગજે ગલીરા કાળમયૂર કે ટોકા નલે ચઢે રે લોલ.
આલે ઝખૂકે ઝીણી વીજ કે વજજર રૂમઝુમે રે લોલ :
સુણી રવ કાળકા નીસર્યાં ખડાર કે ઊડે નલે જીવે રે લોલ.
આવ્યાં વળી ભારતી ખુલ્લે ચોક કે આવ્યાં સરસ્વતી રે લોલ :
આવ્યાં તણ કમળા વિજળુ લોક કે આવ્યાં ઉમા સતી રે લોલ.
દેવીએ કરિયલ દૃષ્ટિપાત કે છલકયા સાગરો રે લોલ :
દેવીએ લોમે માંડ્યા પાય કે ગાળ કાળકંઠરો રે લોલ.
દેવીએ ત્રિશૂળ ધરિયું હાથ કે કેશ છૂટા મુકયા રે લોલ :
ગર્જ રજની કાલ કરાલ કે નલતારા ખુડયા રે લોલ.
માથે લીધા ગરળા દીપ કે રમણે દેવી ચઢ્યાં રે લોલ.
ઝાંઝર ઝમકે ચગિયો રાસ કે કુમકુમ પગ ઝવે રે લોલ :
જાગે ઊગમણા સૌ વાસ કે આલે ઉષા જીવે રે લોલ.

(d)

છે પત્ર ને પુષ્પની પાંખડીએ પ્રભુ તણાં પ્રેમપરાગ પોઢણાં.
કલ્લોલતાં પાંખોનીં આંખડીએ ગીતો અનેરાં ચમકે પ્રભુ તણાં.
પ્રકૃતિમાં રમતાં એ દુભારો લેશ જો દિલે,
શાન્તિની સ્વપ્ન છાયા એ કહી માનવને મજે ?
સૌ જીવ આજે ઉરથી વહાવિયે કારુણ્યની મંગલ પ્રેમધારા.
વસુંધરાના સહુ બાળકો મળી બળવિયે અંતર એક તારા.
હૈયે હૈયાં પ્રેમગાને જગાવી, પ્રજા પ્રજા હાથમાં હાથ ગૂંથી
ને સ્કંધ સ્કંધ સંપે મિલાવી બળવિયે સૌ જગ ઉંબરે ભેંભી :

“માનવી પ્રકૃતિ સૌને વસુધૈવ કુટુંબકમ્”

ને એ જશે શબ્દ અનંત વીંધી, જ્યાં ધૂમતી કોટિક સૂર્યમાલા,
જ્યાં શાન્તિના રાસ ચગે રસાંગા, યન્નૈવ વિશ્વં ભવત્યેકનીડમ્ ॥

(e) શાન્તિની મૃગયા સનાતન છે. તેજોગેધમાંથી જ્યારે સૂરજ જાગ્યો અને એના બ્યોમ બ્યાપી પ્રચંડ વમળમાંથી સ્પુલિંગરૂપે ઘડો અને ઉપઘડો ફેંકાયા, ત્યારથી શાન્તિ અને અશાન્તિ વચ્ચે ગજગ્રાહ છે. પણ પ્રકૃતિમાં ગતિ એટલે કંઈ પ્રગતિ નથી, એમ નિશ્ચેષ્ટતા એ શાન્તિ નથી. જ્યાં ચેતન છે ત્યાં પરિવર્તન રહેવાનુંજ. માનવી પુરુષાર્થ વગર સંતોષ કે શાન્તિને અવકાશજ નથી. ચૈતન્યના પુરુષાર્થમાં સામંજસ્ય કેમ આણવું? વિરાટ શબ્દમાં કોલાહલ મટાડી સંગીત કેમ વહેવડાવવું?—એજ મહાન અન્વેષણ છે. એનો ઇતિહાસ તે માનવ જાતિનું બૃહત્ ચરિત્ર. એ ચરિત્રનું સમગ્ર આકલન ગગનવિહારમાંજ થઈ શકે છે. મહાકાન્તારને પાદાકાન્ત કરનાર વનકેસરીને પણ જે દર્શન દુઃસાધ્ય છે, તે દિનમજિના ઉપરથાનમાં ઊડતા ચંડોળ અને ગરૂડને સહજ છે. [45]

2. Either, (a) Which of K. M. Munshi's પૌરાણિક નાટકો appeals to you most in point of power, delineation of conflicting passions or feelings and synthetic presentation of psycho-ethical problems? Give reasons.

Or, (6) What socio-ethical problem forms the central idea of the play દામ્પત્ય, and what psychological problem forms the central idea of લોમહર્ષિણી—both by Batu Umarvadia? [45]

3. Either, (a) Give a comparative estimate of Narasinha, Mira and Bhalana as poets.

(6) How do you account for the miraculous element in the life-incidents of Narasinha and Mira,—especially the રાસદર્શન vouchsafed to Narasinha through the intervention of God Siva?

Or, What social questions have been treated by (a) ancient Gujarati poets, and (6) modern Gujarati poets? Compare and contrast their manner of handling these questions. [35]

4. “સાંજ પડે દિન આથમે, ચકવી ઝેડી રાયઃ
ચકવા ! ચલો વહાં બાઈયે જિહાં રૈન નવ હોય.”

Which poem of Manishankar Bhatta unconsciously owes, for its central idea, its inspiration to the idea embodied in the above couplet?

How has Manishankar evolved an artistic structure out of this thought? [25]

5. ક્વનિ એ પસર્યો સ્થળે સ્થળે, સુણી રોયાં વનવૃક્ષવેલિયો;
મૃગ પંજી રહ્યાંજ સ્તમ્ભ તે પછી રોયાં, ચિત્તક્ષોભ તો થયો.

This effect on Nature of the lamentations of Samyukta on the death of Prithuraj is viewed as an instance of Pathetic Fallacy by Ramanbhai. Anandashankar Dhruva and Narasiuharao Bholanath

have contributed their own views on this question of Pathetic Fallacy. Summarize the views of these three critics, and give your own conclusions in the matter. [25]

6. “સાક્ષર યુગને શુભરાતી જનતાએ ઝીલ્યો નથી—ઝીલશે નહીં. કારણ, એ સારાય ભણેલો ઘણુ પરદેશી પાક છે—બ્રાન્ડ છે. એ પાકના પંડિતોએ નથી પ્રજને પોતાની ગણી, નથી પ્રજાએ એમને પોતાના ગણ્યા. પ્રજાને પોતાની મેળે પોતાપણું પ્રકટાવવા દો, પછી જુઓ કે સાક્ષર યુગનું સાહિત્ય કયાં જાય છે અને એનું શું થાય છે.”

Write a brief note critically, examining the value of these views. [25]

7. Rama Narayana Pathak says:—

“કલાપીની કવિતા લોકપ્રિય થઈ છે તેનું કારણ તેનો ભક્તિરસ નથી, પણ આપણી ચાલી આવતી લગ્નપ્રથા તરફનો અસંતોષ, સંવનનની અતૃપ્ત ઇચ્છા, ઇષ્ટ સ્ત્રીની અપ્રાપ્તિનું દર્દ, વગેરે નવા જમાનાના યુવાનોની મનોભાવનાને કલાપી પ્રકટ કરે છે તે છે. * * * * *
* * તે ઉપરાંત તેની લોકપ્રિયતાનું એક કારણ તેની શૈલીની સરલતા છે.”

How far do you agree with this diagnosis? In case you would modify it, how would you do it? [25]

8. In his introduction to કલિકા, Khabardar gives an apologia for what the critic may justly regard as plagiarism. Examine this defence of his, distinguishing between Plagiarism and Inspiration, in their essential constitution. [25]

(4) HINDI.

Time allowed—3 hours.

Maximum marks 200.

(Candidates should attempt Questions 1 and 2, and not more than four of the remaining questions. The number of marks carried by each question is indicated at the end of the question.)

1. Translate the following into English :—

- (a) નન્દક નન્દન કદમ્બક તરુ-તર, ધિરે ધિરે મુરલિ વજાવ ।
સમય સંકેત-નિકેતન વહસલ, બેરિ બેરિ બોલિ પઠાવ ।
સામરિ, તોરા લાગિ, અનુચન વિકલ સુરારિ ।
અમુનાક તિર ઉપવન હદવેગલ, ફિરિ ફિરિ તત્ત્વિ નિહારિ ।
ગોરસ વેષ અવરત આદત, અનિ અનિ પુલ્હ બનમારિ ।
તારિ મતિમાન, સુમતિ, મધુસૂચન, અવ સુનહ કિહુ મોરા ॥

Write short notes on the words underlined. What do you know about the author ?

(b) प्रभुहिँ चितै पुनि चितय महि, राजत लोचन लोल।

खेलत मनसिज मीन युग, जल बिधु मण्डल डोल ॥

गिरा अलिनि सुख पंकज रीकी * प्रगट न लाज निशा अवलोकी ॥

लोचन-जल रह लोचन कोना * जैसे परम कृपण कर सीना ॥

(c) ऊँचे घोर मन्दर के अन्दर रहनवारो ऊँचे घोर मन्दर के अन्दर रहती हैं।

कन्दमूल भोग करै कन्दमूल भोग करै तीन बेर खाती सो ती बीन बेर खाती हैं।

भूखन सिथिल अंग भूखन सिथिल अंग बिजन डुलाती ते वे बिजन डुलाती हैं।

भूषन भनत सिवराज वीर तेरे चास नगन जड़ाती ते वे नगन जड़ाती हैं ॥

(d) तुम मुझे पूछते हो “जाऊँ” मैं क्या जवाब दूँ तुम्हीं कहो।

“जा” कहते रुकती है जबान किस मंह से तुम से कहूँ रहो।

सेवा करना था जहाँ मुझे कुछ भक्ति-भाव दरशाना था।

उन कृपा कटाक्षों का बदला बलि होकर जहाँ चुकाना था।

मैं सदा रुठती ही आई प्रिय तुम्हें न मैंने पहिचाना।

वह मान-बाण चुभता है अब तो देख तुम्हारा यह जाना ॥

45

2. Explain the following passages in your own simple Hindi :—

(a) इत आवत चलि जात उत, चली छ सातिक हाथ।

चढ़ी हिँडोरे सी रहै, लगी उसासनि साथ ॥

Write a short note on the author of (a).

(b) मोहन छवि रसखान लखि, अब दृग अपने नाहिं।

ऐँचे आवत धनुष से, छूटे सर से जाहिं ॥

(c) पावस नरेश घर आयो परदेस हँ ते, आदर सी बादर नगरची पठाये हैं।

मोर सरहार्ई करनाल रची मेक तहां, भिज्जोगन आछ नरसींगी ही बनाये हैं।

बिद्युत वारनार नावत अनेक भान्त, के के सनमान द्विज सारंग रिभाये हैं।

भूमि पटरानी हरषानी पिय आवन तें, सावन के घोष घन सुख सो बिहाये हैं ॥

(d) सुक्ता अक्षर, ज्ञान गुन, सूची सुरत जु होय।

अकल-कला की माल को कवि मन से जु पिरोय ॥

अच्छर सेना, नृपति मन, सुरत तुरँग-असुवार।

माच धनुष-सर, कवि करै जग छवि सेर सिकार ॥

45

3. Write a short note on *Alha-Khanda*, discussing among other things (a) its age, (6) its authorship, (c) its predominant sentiment, (d) its importance as a source of historical information, and (e) the quality of its poetry.

30

4. Discuss the authenticity of the *Prthivi-rama-raso* by Chandrabaradai.

25

5. Discuss the main tendencies of the post-war Hindi literature.

30

6. Write a short note on the Muhammadan contribution to Hindi literature.

25

7. Critically examine the place of JayasI, the author of *Padmavat*, in Hindi literature.

25

8. Estimate the value of the contribution of Bharatendu Harischandra to Hindi drama and poetry.

25

9. Briefly trace the history of Hindi prose.

25

10. (a) What do you understand by Khariboli ?

(b) 'The Khariboli poetry is mostly an imitation of Urdu poetry without the latter's charm and sweetness, and is absolutely insipid.' Justify or criticize this remark, with suitable quotations.

30

(5) MARATHI.

No paper set in this subject as no candidate offered it.

(6) PANJABI (GURMUKHI.)

Time allowed—3 hours.

Maximum marks—200.

(Candidates should attempt Questions 7, 2, and 3, and not more than four of the remaining questions. The number of marks carried by each question is indicated at the end of the question.)

1. Explain fully in English :—

(a) ਸਤਿਗੁਰ ਸੇਵੇ ਤਾ ਸਹਜ ਧੁਨਿ ਉਪਜੈ ਗਤਿ ਮਿਤਿ ਤਦ ਹੀ ਪਾਏ ॥

ਹਰਿ ਕਾ ਨਾਮੁ ਸਚਾ ਮਨਿ ਵਸਿਆ ਨਾਮੇ ਨਾਮਿ ਸਮਾਏ ॥ ੧ ॥

ਬਿਨੁ ਸਤਿਗੁਰ ਸਭ ਜਗੁ ਬਉਗਨਾ ॥

ਮਨਮੁਖਿ ਅੰਧਾ ਸਬਦੁ ਨ ਜਾਣੈ ਝੂਠੇ ਭਰਮਿ ਭੁਲਾਨਾ ॥ ਰਹਾਉ ॥

ਤੈ ਗੁਣ ਮਾਇਆ ਭਰਮਿ ਭੁਲਾਇਆ ਹਉਮੈ ਬੰਧਨ ਕਮਾਏ ॥

ਜੰਮਣੁ ਮਰਣੁ ਸਿਰ ਉਪਰਿ ਉਭਉ ਗਰਭ ਜੋਨਿ ਦੁਖੁ ਪਾਏ ॥ ੨ ॥

ਤੈ ਗੁਣ ਵਰਤਹਿ ਸਗਲ ਸੰਸਾਰਾ ਹਉਮੈ ਵਿਚਿ ਪਤਿ ਖੋਲੀ ॥

ਗੁਰਮੁਖਿ ਹੋਵੈ ਚਉਥਾ ਪਦੁ ਚੀਨੈ ਰਾਮ ਨਾਮਿ ਸੁਖੁ ਹੋਈ ॥ ੩ ॥

ਤੈ ਗੁਣ ਸਭਿ ਤੇਰੇ ਤੂ ਆਪੇ ਕਰਤਾ ਜੋ ਤੂ ਕਰਹਿ ਸੁ ਹੋਈ ॥

ਨਾਨਕ ਰਾਮ ਨਾਮਿ ਨਿਸਤਾਰਾ ਸਬਦੇ ਹਉਮੈ ਖੋਲੀ ॥ ੪ ॥

[25]

(b) ਹੁਣ ਮੈਂ ਅਨਹਦ ਨਾਦ ਵਜਾਇਆ। ਤੈਂ ਕਿਉਂ ਅਪਣਾ ਆਪ ਛੁਪਾਇਆ ॥

ਨਾਲ ਮਹਿਬੂਬੇ ਸਿਰ ਦੀ ਬਾਜ਼ੀ। ਜਿਸ ਨੇ ਕੁਲ ਤਬਕ ਲੋ ਸਾਜੀ।

ਮਨ ਮੇਰੇ ਵਿਚ ਜੋਤ ਬਿਗਜੀ। ਆਪੇ ਜਾਹਰਾ ਹਾਲ ਦਿਖਾਇਆ ॥

ਜਦ ਉਹ ਲਾਲ ਲਾਲੀ ਪੁਰ ਆਵੇ। ਸੁਫੈਦੀ ਸਿਆਹੀ ਦੂਰ ਕਰਾਵੇ।

ਅੰਛਣਾਂ ਅਨਹਦ ਨਾਦ ਵਜਾਵੇ। ਆਪੇ ਪ੍ਰੇਮੀ ਡੋਰ ਲੁਭਾਇਆ ॥

ਦੇਖੋ ਨੀ ਕੀ ਕਰ ਗਿਆ ਮਾਹੀ। ਲੈਂਦਾ ਹੀ ਦਿਲ ਹੋ ਗਿਆ ਰਾਹੀ।

ਬੂਧੇ ਤੇ ਮੁਲੀ ਆਨ ਬਜਾਈ। ਅਕਲ ਛਿਕਰ ਸਭ ਦਾਉ ਭੁਲਾਇਆ ॥

[15]

(c) “ਗਜੇ ਚੁਲੀ ਨਿਆਵ ਕੀ ਪੜ੍ਹਿਆ ਸਚੁ ਧਿਆਨੁ”

ਸਤਗੁਰ ਦਾ ਇਹ ਵਾਕ ਪੂਰਾ ਕਰ ਦਏ।

ਹੱਕ ਗਵਾਏ ਮੂਲ ਕਿਸੇ ਨ ਜੀਵ ਦਾ,

ਵੱਢੀ ਕਿਸੇ ਲਿਹਾਜ਼ ਅਤੇ ਸਿਪਾਰਸਾਂ

ਮੰਨ ਨ ਕਰੇ ਅਨਾਇ ਦੇਖੇ ਪ੍ਰਜਾ ਨੂੰ

ਇਸ ਬਿਧ ਸੇਵ ਕਮਾਇ ਅਪਣੀ ਪ੍ਰਜਾ ਦੀ ਖਾਵੇ ਨਾ ਦਿਲ ਮਾਂਹਿ ਮਦ ਜੋ ਗਜ ਦਾ।

ਫਰਸ਼ ਧਰਮ ਇਹ ਜਾਣ ਗਜੇ ਸਿੱਖ ਦਾ ਜੋ ਉਹ ਕਰੇ ਨ ਪੂਰ ਫਰਸ਼ੋਂ ਘੁੱਭਿਆ।

ਫਰਸ਼ੋਂ ਘੁੱਭਾ ਸਿੱਖ ਗੁਰੁ ਨ ਭਾਂਵਦਾ ਗੁਰੁ ਘਰੋਂ ਹੋ ਦੂਰ ਜਾਵੇ ਫਿਟਕਿਆ ॥

[15]

(d) ਏਸ ਇਸ਼ਕ ਨੇ ਵੇਖ ਫਰਿਹਾਦ ਕੁੱਠਾ, ਕੀਤੀਆਂ ਯੂਸਫ਼ ਨਾਲ ਖਵਾਰੀਆਂ ਨੀ।

ਰੋਛਾ ਵੱਢਕੇ ਭੱਕਰੇ ਨਦੀ ਪਾਇਆ ਤੇ ਜਲਾਲੀ ਨੇ ਅੱਖੀਂ ਉਘਾੜੀਆਂ ਨੀ।

ਜਿੱਥੇ ਇਸ਼ਕ ਦਰਿਆ ਦੀ ਮੌਜ ਆਵੇ, ਉੱਥੇ ਆਖੀਆਂ ਤਰਨੀਆਂ ਤਾਰੀਆਂ ਨੀ ।
ਵਾਰਸ ਸ਼ਾਹ ਜਹਾਨ ਦੀ ਚਲਨ ਨਿਆਰੀ, ਅਤੇ ਇਸ਼ਕ ਦੀਆਂ ਧੁਜਾਂ ਨਿਆਰੀਆਂ ਨੀ ॥ [10]

(e) ਕਦੇ ਮਨ ਰੰਗ ਦੇ ਤਰੰਗ ਵਿੱਚ ਆਇਕੇ ਤੇ ਨਾਨਾ ਰੂਪ ਰੰਗ ਦੇਖ ਕਦੇ ਨ ਆਪਾਉਂਦਾ ।
ਮੱਕੜੀ ਸਮਾਨ ਆਪੇ ਆਪ ਜਾਣਾ ਤਾਣਕੇ ਤੇ ਛਾਹੀ ਵਿੱਚ ਫਸ ਪ੍ਰਾਣ ਆਪਣੇ ਵੰਜਾਉਂਦਾ ।
ਕਦੇ ਮਨ ਸਾਜ ਤੇ ਸਮਾਜ ਸਾਜ ਰੱਜਦਾ ਨ, ਰੱਖ ਗਜ ਬਾਜ ਛਾਹੀ ਰੂਪ ਬਣ ਜਾਉਂਦਾ ।
ਆਪਣੇ ਤਰੰਗ ਦੇ ਉਤਰੰਗ ਵੇਗ ਵਿੱਚ ਆਇ, ਪਿਆ ਛਵ ਸਾਗਰ ਦੇ ਵਿੱਚ ਗੋਤੇ ਖਾਉਂਦਾ ॥ [12]

(f) ਪ੍ਰੇਮ ਪੁਜ ਰੀ ਨੂੰ ਮੈਂ ਪੁੱਛਨਾਂ, ਜੀਉਂਦਾ ਹੋਕੇ ਮਰ ਗਿਆ ਕਿਉਂ ?
ਪਰਵਾਨੇ ਦਾ ਜਾਮਾ ਪਾਕੇ, ਜਾਨ ਘੁਮਾਣੇਂ ਭਰ ਗਿਆ ਕਿਉਂ ?
ਪ੍ਰੇਮ ਨਸ਼ੇ ਦਾ ਪੀਕੇ ਪਿਆਲਾ, ਕਿਉਂ ਨਾ ਹੋਇਆ ਮਨ ਮਤਵਾਲਾ ?
ਆ ਗਿਆ ਸੀ ਜੇ ਕੋਈ ਉਛਾਲਾ, ਅੰਦਰੇ ਅੰਦਰ ਜਰ ਗਿਆ ਕਿਉਂ ?
ਸਚਿਆਈ ਦਾ ਢੋਲ ਵਜਾਕੇ, ਸੇਵਾ ਨੂੰ ਆਦਰਸ਼ ਬਣਾਕੇ,
ਮਾਇਆ ਦੀ ਨਗਰੀ ਵਿਚ ਜਾਕੇ, ਮੂੰਹ ਵਿਚ ਪਾਣੀ ਛਰ ਗਿਆ ਕਿਉਂ ?
“ ਰਾਤ੍ਰਿਕ ” ਸੀ ਤਾਂ ਸਦਮੇ ਸਹਿੰਦਾ, ਮੂੰਹ ਅਰਸ਼ਾਂ ਵਲ ਚਾਈ ਰਹਿੰਦਾ,
ਛੱਪੜੀਆਂ ਦਾ ਪਾਣੀ ਪੀ ਪੀ, ਨਾਮ ਕਲੰਕਤ ਕਰ ਗਿਆ ਕਿਉਂ ? [13]

2. Explain the allusions in the following:—

ਜੇ ਕਰ ਉਪਰੀ ਪ੍ਰਤਨਾ, ਵਿਹੁ ਪਿਆਲਣ ਕੰਮ ਨ ਚੰਗਾ ।
ਗਨਿਕਾ ਉਪਰੀ ਆਖੀਐ, ਪਰ ਘਰ ਜਾਇ ਨ ਲਈਐ ਪੰਗਾ ।
ਬਾਲਮੀਕ ਨਿਸਤਾਰਿਆ, ਮਾਰੈ ਵਾਟ ਨ ਹੋਇ ਨਿਸੰਗਾ ।
ਬੱਧਕ ਉਪਰੇ ਆਖੀਅਨ, ਛਾਹੀ ਪਾਇ ਨ ਛੜੀਐ ਟੰਗਾ ।
ਜੇ ਕਾਸਾਈ ਉਪਰਿਆ, ਜੀਆਂ ਘਾਇ ਨ ਖਾਈਐ ਡੰਗਾ ।
ਪਾਰ ਉਤਾਰੈ ਬੋਹਿਬਾ, ਸੋਇਨਾ ਲੋਹ ਨਹੀਂ ਇਕ ਵੰਗਾ ।
ਇਤ ਫਰਵਾਸੈ ਰਹਣ ਕੁਵੰਗਾ ॥ [15]

3. Re-write in simpler Panjabi:—

ਪ੍ਰੇਮ ਨੇ ਆਪਣੇ ਹਿੰਦਲ ਵਿਖੇ ਉਸ ਫ਼ਕੀਰ ਮੋਹਨ ਵਿਚਿਤ੍ਰ ਗਜ ਰਾਜੇਸ਼੍ਵਰ ਰੂਪ ਦਾ ਦਰਸ਼ਣ ਕਰ ਲਿਆ ।
ਦਯਾਮਯ ਦੀ ਕ੍ਰਿਪਾ ਉਸ ਦੇ ਉੱਪਰ ਵਰਸੀ ਅਤੇ ਉਸ ਦੀ ਪ੍ਰਸੰਨਤਾ ਪ੍ਰਗਟ ਹੋਈ । ਉਹ ਤਿਸ ਦੀ ਭਗਤਿ-
ਉਪਜਾਇਣੀ, ਜੀਵਨ-ਦਾਇਣੀ, ਪ੍ਰੇਮ ਵਰਧਣੀ ਅਲਖ ਅਪਿਆਤਮਕ ਮੂਰਤੀ ਨੂੰ ਦੇਖਦੇ ਸਾਰ ਮੋਹਿਤ ਹੋ ਗਿਆ ਅਤੇ
ਆਨੰਦ ਦਾ ਸਾਗਰ ਉਸ ਦੀ ਆਤਮਾ ਵਿੱਚ ਉਮਛ ਆਇਆ । ਕੁਝ ਦਿਹ ਮਗਰੋਂ ਵਿਸਮਾਦ ਦੇ ਘਰ ਵਿੱਚ ਆਕੇ
ਆਪਣੇ ਇਸ਼ਟ ਦੇਵ ਦੀ ਉਸਤਤ ਕਰਨ ਲੱਗਾ । [15]

4. Enumerate the main incidents in the love-story of Hir and Ranjha and account for its popularity. What is the value of Waris Shah's work on the subject from the historical point of view ? [20]

5. What do you know of Kali Das of Gujranwala and his poetry ? In what respects does he differ from older poets ? Give an appreciation of Bullhe Shah's poetry. [20]

6. Write a note on the part played by the Sikh Gurus in the development of Panjabi literature. [20]

7. What are the special charms of ਵਾਰਾਂ ਛਾਈ ਗੁਰਦਾਸ ? [20]

8. Compare Bhai Bala's and Bhai Mani Singh's Janam Sakhis (biographies) of Guru Nanak. Which is more authentic ? Give reasons. [20]

9. Name the Panjabi versions of some Sanskrit dramatic works known to you. Which is the most important one ? Discuss its merits and demerits by reference to its contents. [20]

10. Give the form **बुनेग** **भूलाउ**, **गीला** **मालिनी**, **मंद**, **मिर्छिनी** and **मदेला** with **one** example of each.

[20]

(7) TAMIL.

(8) TELUGU.

No paper set in these subjects as no candidates offered them.

(9) URDtX

Time allowed—3 hours.

Maximum marks 200.

Candidates should attempt at least two questions from each section, and not more than *five* questions in all. All the questions carry equal marks. Answers may be written either in Urdu or in English.

A.

1. Write a brief sketch of the development of Urdu literature until the end of the sixteenth century.

2. "دنیا میں کوئی قوم نہیں پائی جاتی جس کی شاعری بغیر فاتحانہ اثر کے ترقی اور اثر کا دلچسپ اور دل نشین نمونہ بنی ہو یا فاتحانہ حیثیت کے جائے ہی اس کے کمال پر زوال نہ آیا ہو"

Is this an adequate explanation of the characteristic weakness of Urdu poetry ?

3. Describe the social and cultural conditions of Oudh during the period between Shuja'-ud-daulah and Sa'adat 'Ali Khan, and show what influence they exercised over the growth of Urdu literature.

4. "شاعری کا بڑا کمال حقیقت اور مجاز کی دو حالتوں کا تماشا ایک صورت میں دکھانے کا ہے"

Discuss,

5. 'No form of poetry is better suited for continuous description than Masnavi.' Explain, and show what use Urdu poets have made of this form.

B

0. Write a critical note on the odes of Sauda and Zauq.

7. لگا رہا ہوں مضامین نو کے پھر انبار

خبر کر مرے خرموں کے خوشہ چینوں کو

Justify the claim which Anis has made in this line.

8. "ہندوستان کی در الہامی کتابیں ہیں، مقدس وید اور اردو دیوان غالب"

"روحانی ہم آہنگی غالب میں سرے سے لا پتہ ہے"

Compare these two estimates of Ghalib, and give your own appreciation of his lyrical poetry.

9. Either, (a) Examine critically the characterization of *نسانہ آزاد*.
Or, (b) Discuss Premchand as a writer of short stories.
10. On what grounds do some critics regard Shibli Nu'mani as the greatest of Urdu prose writers?
11. Write a note on the writers of *طنز و طعنه* in contemporary Urdu literature.

ENGLISH LITERATURE (GENERAL).

PAPER 1.

Time allowed—3 hours.

Maximum marks 100.

(Candidates should attempt five questions, choosing at least one, and not more than two, from each section. All the questions carry equal marks.)

A

1. Either, (a) Examine the plan and arrangement of *The Canterbury Tales*.

Or, (b) Do you agree that 'the genius of Spenser, like Chaucer's, does itself justice only in poems of some length'?

2. Elucidate Wordsworth's description of Spenser:—

'Moving through his clouded heaven,

With the moon's soft beauty, and the moon's slow pace.'

2. Indicate either (a) the conflicting ideas of the Middle Ages and the Renaissance, or (b) the popular and classical elements in Elizabethan drama.

4. Either, (a) To what extent is it true that Marlowe prepared the way for Shakespeare?

Or, (b) Compare Marlowe's idea of tragedy with Shakespeare's.

5. Matthew Arnold says of Shakespeare:—

'Others abide our question. Thou art free.'

What exactly does he mean?

6. Either, (a) Write a note on the Elizabethan lyric.

Or, (b) Show your acquaintance with any two of the following:—*The Legend of Good Women*, *The Shepherd's Calendar*, *Edward II*, *The Duchess of Malfi*, *The Alchemist*, *Arcadia*.

B

7. Either, (a) Write a note on the Pastoral in English poetry.

Or, (b) Examine seventeenth century poetry in the light of the following statement:—'Our Muses now give expression to religious thought.'

8. How far was Milton of his age and time?

9. What do you understand by the statement that 'the eighteenth century is the age of correctness'?

10. Examine Pope's claim to the title of poet.

11. Give some account of the work of the precursors of the Romantic Revival.

O

12. Compare generally the poetry of the Romantic Revival with that of the Victorian age.
13. Examine *one* of the following statements about Wordsworth :—
 - (a) ' His poetry has the cold thrill of the dawn.'
 - (b) ' Nature herself seems to take the pen out of his hand.'
 - (c) ' He did not practise what he preached.'
14. Write a note on the Ode in English literature.
15. Discuss 'the new eminence of women ' in Victorian poetry.
16. 'In range and command of varied subject Tennyson has been unequalled.' Discuss.
17. Show that Brōwning is remarkable for the depth of his spiritual insight.

 ENGLISH LITERATURE (GENERAL).

 PAPER 2.

Time allowed—3 hours.

Maximum marks 100.

(Candidates should attempt five questions, choosing at least *one*, and not more than *two*, from each section. All the questions carry equal marks.)

A

1. Estimate the power and influence of Malory.
2. Indicate *either* (a) the characteristics of Renaissance prose, or (b) the trend of Elizabethan literary criticism.
3. How far is it true that Bacon ' does not endear himself to mankind ' ?
4. Trace the influence of the Bible upon English language and literature.
5. Discuss Sir Thomas Browne and Milton as prose-writers.

B

6. Estimate the importance of the work of Addison and Steele.
7. Examine *one* of the following statements about Swift:—
 - (a) ' With all its deadly satire *Gulliver* is a wonderful story-book.'
 - (b) ' The scourge is more apparent than the jest.'¹
8. Indicate Dr. Johnson's place in English letters.
9. Write a note on humanitarianism in the eighteenth century.
10. Compare generally the eighteenth-century with the nineteenth-century novel.
11. Show your acquaintance with eighteenth-century literary criticism,

C

12. Write a literary appreciation of any *three* of the following :—*TFWlfaring Heights*, *Adam Bede*, *Martin Chuzzlewit*, *The Virginians*, *Jane Eyre*, *Past and Present*, *Sesame and Lilies*, *The Return of the Kalive*, *Weir of Herwistcn*.
13. Assess the value of the literary criticism of Lamb, Hazlitt, and Matthew Arnold.
14. In what respects are Macaulay and Carlyle typical of the Victorian era ?
16. What are the characteristics of the nineteenth-century essay ?

16. ^f Thackeray makes us remember : Dickens makes us forget,' Explain and discuss,
17. Give some account of the work of the women novelists of the Victorian age,
18. Discuss *either* (a) poetic justice in Hardy's novels, or (b) Stevenson's love of romance.

ENGLISH LITERATURE.

PERIOD 1.

Time allowed—3 hours.

Maximum marks 100.

Candidates should attempt question *one* and not more than *four* of the remaining questions. All the questions carry equal marks.)

1. Explain how the following quotation is related to Milton's personal history, and to the traditional culture or civilization in which he lived. Indicate such marks of style as seem specifically Miltonic :—

He scarce had ceased when the superior Fiend
 Was moving toward the shore : his ponderous shield,
 Ethereal temper, massy, large, and round,
 Behind him east ; the broad circumference
 Hung on his shoulders like the moon, whose orb
 Through optic glass the Tuscan artist views
 At evening from the top of Fesole,
 Or in Valdarno, to descry new lands,
 Rivers or mountains in her spotty globe.
 His spear—to equal which the tallest pine
 Hewn on Norwegian hills, to be the mast
 Of some great admiral, were but a wand—
 He walked with to support uneasy steps
 Over the burning marie, not like those steps
 On Heaven's azure : and the torrid clime
 Smote on him sore besides, vaulted with fire.
 Nathless he so endured, till on the beach
 Of that inflamed sea he stood, and called
 His legions, angel forms, who lay entranced
 Thick as autumnal leaves that strow the brooks
 in Vallombrosa, where the Etrurian shades
 High overarched embower : or scattered sedge
 Afloat, when with fierce winds Orion armed
 Hath vexed the Red Sea coast, whose waves o'erthrew
 Busiris and his Memphian chivalry,
 While with perfidious hatred they pursued
 The sojourners of Goshen, who beheld,
 From the safe shore, their floating carcasses
 And broken chariot wheels. So thick'bestrown,
 Abject and lost, lay these, covering the flood
 Tindred amazement of their hideous change,

2. The Renaissance poets 'reinforced their primary meanings with repetitions, glosses, and amplifications. A shower of words and image«splashes the reader's face.' Exemplify, and, if possible, explain this peculiarity, with special reference to Spenser'.

3. Spenser remarks, of *The Faerie Queene*, 'the generall end therefore of all the book is to fashion a gentleman or noble person in vertuous and gentle discipline'. Do you think Spenser did not know his own mind, or do you think he failed rather lamentably in his purpose ?

4. Justify the contention that Shakespeare wrote for an age and not for all time.

5. Writing of Othello, Shaw remarks, 'Shakespeare, as usual, starts with rough general notion of a certain type of individual, and then throws it over, at the first temptation, Iago begins as a coarse blackguard, whose jovial bluntness passes for honesty—but the moment a stage effect can be made or a fine speech brought off by making him refined, subtle, and dignified, he is set talking like Hamlet, and becomes a godsend to the students of the "problems" presented by our divine William's sham characters.' Bearing this in mind, discuss the flaws and improbabilities in Shakespeare's characterizations. Do you think Shakespeare was a poet primarily, and not a dramatist ?

6. What are the distinctive marks of style and content in Bacon's *Essays* ? Do they lead you to suppose that Bacon was Shakespeare ?

7. Of Webster it has been said, 'As in Bacon we meet with the same shortwindedness everywhere, the full stop of the aphorism, the suggestion of the penny in the slot machine'. Do you perceive any connexion between the style and content of Bacon and those of Webster ? Do you think the criticism quoted does justice to either writer ?

8. Discuss the religious background of either *The Faerie Queene*, or Bacon's *Essays* or Shakespeare's plays.

9. Analyse the plot of either *The Alchemist*, or *Volpone*, or *Epicoene* in such a way as to bring out Jonson's faults and merits as a practical dramatist.

10. Do you consider that *Comus*, *Paradise Lost*, and *Paradise Regained* may justly be considered as immanently written theological treatises ? If not, why not ? If so, explain in what way they are badly written.

11. Either, (a) 'Overpraise will do his reputation no service : and his theology needs so much allowance that anything which dislocates him from his time does him vast injury : and this some of his warmest friends do not perceive when they Victorianize his spelling and parade his Calvinism on shiny paper' (BRIDGES on Bunyan). Exemplify Bridges's criticism.

Or, (b) Do you think *The Pilgrim's Progress* a lit book for children ?

12. What do you know of any two of the following:—the problem of Shakespeare's sonnets, Sir Thomas Browne as a scientist, Bunyan's reading, Dryden's prefaces, Milton's family affairs and their influence upon his work, John Aubrey, Donne's influence upon other poets ?

ENGLISH LITERATURE.

PERIOD 2.

Time allowed—3 hours.

Maximum marks 100.

(Candidates should attempt Question 1, and not more than four of the remaining questions. All the questions carry equal marks.)

1. Refer to their context four of the following passages ; and write notes on any points of interest in them :—

(a) OF it a broad Extinguisher he makes,

And hoods the Flames that to their quarry strove.

The vanquished Fires withdraw from every place
 Or, full with feeding, sink into a sleep :
 Each household Genius shows again his face
 And from the hearths the little Lares creep,

- (J) P. Let *Sporus* tremble.—4. What ? that thing of silk,
Sporus, that mere white curd of Ass's milk ?
 Satire or sense, alas ! can *Sporus* feel ?
 Who breaks a butterfly upon a wheel ?
 P. Yet let me flap this bug with gilded wings,
 This painted child of diet, that stinks and stings.

- (c) It must be so—Plato, thou reason'st well—
 Else whence this pleasing hope, this fond desire,
 This longing after immortality ?
 Or whence this secret dread, and inward horror,
 Of falling into nought ?

(d) Of him, at last, may be said what Jonson says of Spenser, that *he wrote no language*, but had formed what Butler calls a *Babylonish Dialect*,

(e) They jumped upon him like children on a long absent father. They clung about him as captives about their redeemer. All England, all America, joined to his applause.

(f) The hair of both sexes was of several colours, brown, red, black, and yellow. Upon the whole, I never beheld, in all my travels, so disagreeable an animal, or one against which I naturally conceived so strong an antipathy.

- (g) But not to one, in this benighted age,
 Is that diviner inspiration given,
 That burns in Shakespeare's or in Milton's page,
 The pomp and prodigality of heaven.

2. How far could Swift's motto *Vive la Bagatelle* ('Long live the trifle !') have been adopted generally by the eighteenth century ? What were the causes of its popularity.

3. With special reference to the lives of Dryden, Swift, Addison, and Johnson, trace the development of the position of the author in society.

4. What do you understand by the phrase 'the Peace of the Augustans' ?

6. Trace the growth of journalism during this period, with special reference to the contributions of Addison, Johnson, and Goldsmith.

6. Outline the development of criticism from Dryden to Johnson.

7. By an analysis of his life and works bring out clearly your conception of Swift's character.

8. Discuss the mastery of Pope's poetic technique. What changes does he introduce into the form of poetry ?

9. 'For as I am, in reality, the founder of a new province of writing, so I am at liberty to make what laws I please therein.' How far is Fielding justified in calling his novels 'a new province of writing', and what are the laws on which he seems most to insist ?

10. Has Burke more than a temporary or historical interest ?

11. Compare Sheridan's dramas with those of the Restoration.

12. 'He was dull in a new way, that made many people think him *great*. He was a mechanical poet.' Comment on this Johnsonian opinion of Gray. What was the 'new way' in which Johnson considered him to have been dull?

13. Compare the morality implicit in Fielding's novels with that of Richardson's and Sterne's.

14. Write notes on any *four* of the following :—*The Rehearsal*, *The Beggar's Opera*, *Parnell*, *Retaliation*, *The Relation of Mrs. Veal*, *The Castle of Indolence*, *Evelina*.

ENGLISH LITERATURE.

PERIOD 3.

Time allowed—3 hours.

Maximum marks 100.

(Candidate should attempt Question 1 and not more than *four* of the remaining questions. All the questions carry equal marks.)

1. Refer *four* of the following extracts to their contexts, and write notes by way of comment on the extracts you select :—

(a) The breakfast of Lady Margaret Bellenden no more resembled a modern dejeuner than the gre^{at} stone hall at Tillietudlem could brook comparison with a modern drawing-room. No tea, no coffee, no variety of rolls, but solid and substantial viands—the priestly ham, the knightly sirloin, the noble baron of beef, the princely venison pasty; while silver flagons, saved with difficulty from the claws of the Covenanters, now mantled, some with ale, some with mead, and some with generous wine of various qualities and descriptions.

(b) When the ladies returned to the drawing-room, there was lit^{tle} to be done but to hear Lady Catherine talk, which she did without any intermission till coffee came in, delivering her opinion on every subject in so decisive a manner, as proved that she was not used to have her judgment controverted. . . . Elizabeth found that nothing was beneath this great lady's attention, which could furnish her with an occasion of dictating to others.

(c) Mankind, says a Chinese manuscript, which my friend M. was obliging enough to read and explain to me, for the first seventy thousand ages ate their meat raw, clawing or biting it from the living animal, just as they do in Abyssinia to this day. This period is not obscurely hinted at by their great Confucius in the second chapter of his *Mundane Mutations*, where he designates a kind of golden age by the term Cho-fang, literally the Cooks, holiday.

(d) Thou wast not born for death, immortal Bird !
 No hungry generations tread thee down ;
 The voice I hear this passing night was heard
 In ancient days by emperor and clown :
 Perhaps the self-same song that found a path
 Through the sad heart of Ruth, when sick for home,
 She stood in tears amid the alien corn ;
 The same that oft-times hath
 Charm'd magic casements, opening on the foam
 Of perilous seas, in faery lands forlorn.

(e) Midst others of less note, came one frail Form,
 A phantom among men ; companionless
 As the last cloud of an expiring storm
 Whose thunder is its knell; he, as I guess,

Had gazed on Nature's naked loveliness,
 Acteon-like, and now he fled astray
 With feeble steps o'er the world's wilderness,
 And his own thoughts, along that rugged way,
 Pursued, like raging hounds, their father and their prey.

(.) One of the pleasinest things in the world is going a journey ; but I like to go by myself. I can enjoy society in a room ; but out of doors, nature is company enough for me. I am then never less alone than when alone.

The fields his study, nature was his book.

I cannot see the wit of walking and talking at the same time.

(g) Our birth is but a sleep and a forgetting :

The Soul that rises with us, our life's Star,

It hath had elsewhere its setting,

And cometh from afar :

Not in entire forgetfulness, •

And not in utter nakedness,

But trailing clouds of glory do we come

From God, who is our home.

(A) *Bacon*. When I read of such things I doubt them. Religion and politics belong to God, and to God's vicegerent the King : we must not touch upon them unadvisedly : but if I could procure a plant of dittany on easy terms, I would persuade my apothecary and my gamekeeper to make some experiments.

Hooker. I dare not distrust what grave writers have declared, in matters beyond my knowledge

(2) Either, (a) Describe the influence of the French Revolution on contemporary English writers.

Or, (b) What indications are there of the coming of the Romantic Revival in the literature of the age immediately preceding it ?

3. Contrast Byron and Shelley as poets of revolt.

4. Compare the attempts of Southey and Moore to interpret the oriental world.

5. Discuss and illustrate Landor's power of portraying historical Characters.

Either, (ft) Compare Shelley and Keats in their treatment of classical myths.

Or, (b) Write a detailed appreciation of any *one* of Keats's *Odes*.

I. Either, (a) What are the special problems of the historical novel ? Show, with illustrations, how far Scott was successful in solving them.

Or, (b) Illustrate Scott's skill as a novelist in dealing with characters from the lower walks of life.

8. What light do Lamb's *Essays of Elia* throw on the London of his time and its inhabitants ?

9. Discuss Wordsworth's views on poetry, and indicate Coleridge's criticisms of them in his *Biographia Literaria*

10. Either, (a) Illustrate Jane Austen's use of irony in her novels.

Or, (b) ' Art was never applied to average material with so little ostentation, and so wonderful an effect' (RALEIGH). Taking any *one* of Jane Austen's novels as a basis, show the truth of this statement.

II. Show your acquaintance with, and appreciation of any *two* of the following :—*English Bards and Scotch Reviewers*, *Christabel*, *The Pleasures of Hope*, *Vision of Judgment*, *Isabella*, *Old Mortality*, *The Prelude*.

ENGLISH LITERATURE.

PERIOD 4.

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt Questions 1 and 2, and not more than four of the remaining questions, including at least one from each of the two groups. The first two questions carry 20 marks each, the remaining questions 15 marks each.)

1. Identify *any four* of the following passages, naming the author of each and, if possible, the book, essay, or poem in which it occurs, and adding in each case a brief comment :—

(a) No coward soul is mine,

No trembler in the world's storm-troubled sphere :

T see Heaven's glories shine,

And faith shines equal, arming me from fear.

(h) There are things we do and know perfectly well in *Vanity Fair*, though we never speak of them—as the Ahrimaneans worship the devil, but don't mention him ; and a polite public will no more bear to read 'an authentic description of vice than a truly refined English or American female will permit the word 'breeches', to be pronounced in her hearing. And yet, Madam, both are walking the world before our faces every day, without much shocking us.

(c) In the foreground is that strange figure which is as familiar to us as the figures of those among whom we have been brought up, the gigantic body, the huge massy face, seamed with the scars of disease, the brown coat, the black worsted stockings, the grey wig with the scorched foretop, the dirty hands, the nails bitten and pared to the quick.

(d) *I cannot rest from travel : I will drink*

Life to the lees : all times have I enjoy'd

Greatly, have suffered greatly, both with those

That loved me, and alone; on shore, and when

Thro' scudding drifts the rainy Hyades

Vext the dim sea.

(e) Strong was he that had a Church,—what we can call a Church : he stood thereby, though 'in the center of Immensities in the conflux of Eternities⁵, yet manlike towards God and man ; the vague shoreless Universe had become a firm city for him, a dwelling which he knew. Such virtue was in Belief ; in these words well spoken : ' *believe*.

(.) I was ever a fighter, so—one fight more,

The best and the last !

I would hate that death bandaged my eyes and forbore,

And bade me creep past.

(g) I must pause yet once again. Oh, my child-wife, there is a fiiuro in the moving crowd before my memory, quiet and still, saying in its innocent love and childish beauty, Stop to think of me—turn to look upon the Lit Me Blossom, as it flutters to the ground ! I do. All else grows dim, and fades away. I am again with Dora, in our cottage.

(h) And this shall be for music when no one else is near,

The fine sons; for singing, the rare song to hear !

That only I remember, that only you admire,

Of the broad road that stretches and the roadside fire.

(i) It was at present a place perfectly accordant with man's nature—neither ghastly, hateful, nor ugly : neither commonplace, unmeaning, nor tame ; but, like man, slighted and enduring ; and withal singularly colossal and mysterious in its swarthy monotony.

2. Write brief notes, from personal knowledge, on any *four* of the following books :—*The Way of all Flesh*, *Silas Marner*, *Horae Subsecivae*, *Plain Tales from the Hills*, *Travels in Arabia Deserta*, *Short Studies in Great Subjects*, *The Bab Ballads*, *The Defence of Guinevere*, *The Golden Treasury of Songs and Lyrics*, *The Hound of Heaven*.

GROUP A

3. Macaulay wrote of Byron : ' By judicious selection and judicious exaggeration, the intellect and the disposition of any human being might be described as being made up of nothing but startling contrasts.' Show, by examples, how aptly the words apply to much of Macaulay's own work.

4. ' To present human nature, not as it looks to the poet or to us, but as it looks to itself—that is what it is to be a truly dramatic poet; and that was Browning's work. The soliloquy was the right medium for him ' (LASCELLES ABERCKOMBIE). Discuss, with illustrations.

5. In his letters R. L. Stevenson often spoke slightly of his own work, and confessed sadly, in his last year, that he had written only for boys. Write an appreciation of his stories from this point of view.

6. ' It is in virtue of his poetry that Matthew Arnold will survive. His prose-works, broadly speaking, belong to his own time only, and are already of little interest save historically.' Discuss.

7. Try to give a sympathetic account of Carlyle's doctrine of ' Heroes and Hero-worship '.

GROUP B

8. Give a short general account of the novels of Charles Kcade, and a detailed criticism of any *one* of them.

9. Name (a) *one* poet, and (6) *one* novelist, who seem to you to be typically and representatively ' Victorian ' ; and try to justify your choice in each case.

10. Can you account for the comparative feebleness of the drama (apart from the comic operas of Gilbert and Sullivan) during the greater part of this period ?

11. Give some account of Meredith's conception of comedy, and show how it is worked out in any *one* of his novels.

12. Give a short general account of ' Barsetshire ', and describe a few of the most typical of its inhabitants.

13. William Morris called himself ' the idle singer of an empty day'. What did he mean by this ?

LATIN.

Time allowed—3 hours.

Maximum Marks—200.

(The number of marks carried by each question is indicated at the end of the question.)

1. Translate into English :—

(a) At ego cum casu diebus iis itineris faciendi causa decedens e provincia Puteolos forte venissem, cum plurimi et lautissimi in iis locis solent esse, concidi

paene, indices, cum er me quidam quaesisset, quo dis Roma exissem et num. quidnam esset novi. Cui cum respondissem me e provincea decedere, 'Etiam mehercule, 'inquit, 'ut opinor, ex Africa.' Huic ego uin stomachans fastidiose, 'Immo ex Sicilia, 'inquatu. Turn quidam, quasi qui omnia sciret, ' Quid ? tu nescis,' inquit, 'hunc quaestorem Syracusis fuisse ? 'Quid multa ? destiti stoinachari et me unum ex iis feci qui ad aquas venissent.

14

(b) Torpebat Vitellius et fortuuam principatus inertis luxu ac prodigiis epulis praesuinebat, medio die temulentus et sagina gravis, cum tamen ardor et vis militum ultro ducis munia implebat, ut si adesset iuiper alior et strenuis vel ignavis spem metumvc adderet. Instruct! intentique signum profectionis exposcunt, nomine Germanic! Vitellio statim addito : Caesarem se appellari etiam victor prohibuit. Laetum augurium fabio Vallenti exercituique, quern in bellum agebat, ipso profectionis die aquila leni meatu, prout agmen incce-deret, velut dux viae praeuolavit, longumque per spatium is gaudentium militum clamor, ea quies interritae alitis fuit, ut baud dubium magnae et prosperae rei omen acciperetur.

18

(c) Aeneas prepares to descend to the Underworld.

Ipse atri volleris agnam

Aeneas matri Eumenidum magnaue sorori
ense ferit, sterilemque tibi, Proserpina, vaccam.
Turn Stygio regi nocturnas inchoat aras
et solida iinponit taurorum viscera flammis,
pingue super oleum fundens ardentibus extis.
Ecce autem primi sub lumina solis et ortus
sub pedibus mugire solum et iuga coepta moveri
silvarum, visacque canes ululare per umbram
adventante dea. Procul o, procul este, proiani.'
conclamat vates, 'totoquo absistite luco ;
tuque invade viam vaginaque cripo ferrum ;
nunc auimis opus, Aenea, nunc pectore limo.'

18

(d) Vides ut alte stet nive candiduui
Soracte, nee iam bustineant onus
silvae laborantes, geluque
illumina constiterint acute ?

Dissolve frigus ligna super foco
large reponens atque benignis
deprome quadrimum Sabina,
o Thaliarche, merum diota.

Permitte divis cetera, qui simul
stravere ventos aequoro fervido
deproeliantes, nee cupressi
nee veteres agitantur orni.

14

2. Translate the following sentences and explain their construction :—

- (a) Inutile ferrum cingitur.
- (b) Multis ille bonis flebilis occidit.
- (c) Hoc nee mea nec Caesaris refert.

5

3. Translate into Latin :

The Great War therefore falls into three stages. At the start Germany, with the advantages of surprise and long preparation, embarked on a war of movement in the hope of immediate victory. She failed in this, and the campaign then became a siege in which the Allies sat round her entrenched strong-

hold. That vast stronghold embraced half of Europe and part of Asia ; it could produce most things that it needed and carry on its normal life. Brilliant sallies were made, which more than once nearly dispersed the besiegers; but, nevertheless, for three and a half years Germany was as the garrison of a beleaguered city. Then came the short, last stage, when the outworks of the fortress crumbled, and the Allies pressed in and forced the garrison to surrender. 30

INDIAN HISTORY.

PERIOD 1.

Time allowed—3 hours.

Maximum Marks—100.

(Candidates should attempt Question 1 and not more than *four* of the remaining questions.
All the questions carry equal marks.)

1. Indicate on the outline map' provided *either* the extent of Asoka's empire and the chief spots where his edicts have been found, *or* the principal cities and kingdoms of Northern India as given in Hiuen Tsang's *Itinerary*.
2. Give a critical account of the theories concerning the original home and migration of the Indo-Aryans. How do you determine the date of the Ujjain period?
3. What light does early Buddhist literature throw on the social and economic organization of the people of North-Eastern India?
4. Discuss the factors that brought about the disruption of the Mauryan Empire, with special reference to the extent of Asoka's responsibility for it.
5. Describe the part played by the Sakas in India in the period 100 B.C.—A.D. 200. What is your view of the origin of the Saka era?
6. Discuss the statement that the Gupta concept of a pan-Hindu empire was a heritage acquired from other quarters.
7. Estimate the political and cultural achievements of the Great Pallavas of Kanchi in the seventh century A.D.
8. Give a clear account of the Gurjara-Pratiharas of Kanauj, and stress the part they played in the restoration of the Imperial idea.
9. When and how did Buddhism spread in to Khotan and China? Note the extent of the influence exerted by Indian teachers on Chinese Buddhism.
10. Outline the fortunes of the later Chalukyas of Kalyani in the eleventh century A.D., and briefly indicate their contribution to art and literature.
11. Examine the political condition of Northern India on the eve of the invasion of Muhammad Ghori, and account for the failure of the Hindu military organization.
12. Give an account of the extension of South Indian culture into the Malay Peninsula and the Archipelago. Note very briefly the rise and fall of the Chola dominion in these regions.

INDIAN HISTORY.

PERIOD 2.

Time allowed—3 hours.

Maximum Marks—100.

(Candidates should attempt Question 1 and not more than four of the remaining question'.
All the questions carry equal marks.)

1. Either, (a) Mark on the outline map' provided the main divisions of Aurangzeb's empire at his death, with *eight* important cities ; and also indicate the boundaries of the Maratha dominions in 1748.

Or, (b) Trace, on the outline map' provided the Grand Trunk Road of the Mughal period, marking the chief points on it; and also indicate the royal road (*shahrdh*) from Delhi to Bijapur, and the chief cities that it passed through.

2. How were the Hindu powers distributed geographically in Northern India during the reign of Mahmud of Ghazni? Follow the course of the struggle of the Shuihi kings against the House of Sabuktigin, indicating the extent of the territorial acquisitions of the latter as in 1030.

3. 'Hence, with the best intentions and excellent ideas,...Muhammad Tughlaq was a transcendent failure' (LANE POOLE). Account for his failure by a criticism of his internal measures. What was his early revenue policy, and what line of action did he adopt in consequence of the famine?

4. Sketch the history of the kingdom of Jaunpur, its relations with its neighbours, and its artistic achievements.

5. What idea of Babur's character is given by his *Memoirs*? Illustrate his capacity as a general by a detailed study of *one* of his battles in India.

6. Describe the measures by which Akbar tried to create a united Indian nationality, and also his schemes of social reform. What was their history after his death?

7. Trace the history of the Vijayanagar empire from the beginning of the sixteenth century to its end, with a note on its architectural remains.

8. Write the internal history of the Adil Shahi monarchy from 1627 onwards, and illustrate the policy of (a) the Mughal Emperors, and (6) Shivaji towards it, and the consequences of these foreign relations.

9. Follow in clear outline the changing phases of Aurangzeb's activities in the Deccan from 1682, and account for the ultimate success of the Marathas. Describe the settlement made by the Mughal government with Shahu in 1718.

10. Sketch the character of the 'Sayyid Brothers', and give a *resume* of their influence on Delhi affairs. What can be said against the view that they were actuated by selfish ambition only?

11. Write a critical study of the position and general character of the nobility in the Mughal empire. Explain why, unlike the barons of Europe, they failed to act either as 'pillars of the throne' or as 'guardians of popular liberty' against the Crown,

INDIAN HISTORY.

PERIOD 3.

Time allowed—3 hours.

Maximum Marks—100.

(Candidates should attempt Question 1 and not more than *four* of the remaining questions.
All the questions carry equal marks.)

1. On the outline map' provided indicate clearly *either* (a) the stages in the expansion of the Maratha power between 1646 and 1761; *or* (b) the extension of the territory under the control of the East India Company between 1795 and 1823.

2. Write an account of the rivalry between the various European companies for the exclusive control of trade with India before the period of the War of the Austrian Succession.

3. Examine critically Olive's career as a soldier and an administrator in Bengal.

4. 'It must remain the verdict of history that Cornwallis merely developed under happier auspices what Warren Hastings had begun; that, in that part of his policy which was his own, he embarked from the false premiss that reform in India meant making it like the England of his ideals; and that he made serious and abiding mistakes from the best motives in the world.' Discuss this judgment.

5. Write an account of the advance of Russia towards the north-western frontier of India during the nineteenth century and of the measures of the government of India to counteract that advance.

6. Explain the chief modifications made by the British Parliament in the government of India and the powers of the East India Company between 1773 and 1833.

7. Explain the aspects of Lord Dalhousie's policy as Governor-General which have been hostilely criticized. To what extent, in your opinion, are those criticisms justifiable?

8. The assumption of the government of India by the Crown has been described as 'rather a formal than a substantial change.' Examine this statement.

9. Give some account of the development of political sentiment in India since 1885.

10. Explain the policy and measures of Lord Curzon in regard to the problem of land revenue in India.

11. Explain precisely the changes made in the Indian constitution as a result of the Montagu-Chelmsford Report. What, in your opinion, have proved to be the chief advantages and disadvantages of the reforms of 1919?

MODERN EUROPEAN HISTORY.

PERIOD 1.

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt Question 1 and not more than four of the remaining questions. All the questions carry equal marks.)

1. Making use of the outline map' provided, describe *either* (a) the political condition of Italy in 1492 ; *of* (b) the religious distribution of Europe at the opening of the Thirty Years' War.

2. Explain the policy of the French 'government towards the revolting Netherlands during the years 1570 to 1578.

3. Estimate the effects of the Sixty Years' Captivity on the political and economic situation of Portugal.

4. Account for the failure of Ferdinand II to re-establish the imperial control in Germany.

5. Discuss the influence of religious intolerance on the development of the Spanish nation.

C' How does Poltava ' mark a new epoch in universal history' ?

7. What was the Fronde ? Recount the chief stages and analyse the causes of the failure of the movement.

8. Sketch the progress of Turkey in Europe from 1683 to the Peace of Carlowitz.

9. Give some account of the economic condition of France in the time of Louis XIV. Do you consider that he sacrificed the national welfare to political ambitions ?

10. Discuss the influence of commercial motives on international relations during the years 1715 to 1740.

11. Trace the origin of the republican party in the United Provinces, and give some account of the conflict between it and the Orange party during the seventeenth century.

MODERN EUROPEAN HISTORY.

PERIOD-2.

Time allowed—3 hours.

Maximum marks—'100'

(Candidates should attempt Question 1 and not more than four of the remaining questions. All the questions carry equal marks.)

1. Indicate on the outline map' provided *either* (a) the successive stages since 1878 in the diminution of Turkey in Europe, *or* (b) the military events in the Balkans, 1913 to 1918.

2. What is your estimate of the diplomacy of Kaunitz ?
3. Examine the reaction of Europe and America to the British conquest of Canada.
4. How far is it correct to regard Catherine as the author of the partition of Poland ?
5. Estimate the value of the constructive work carried out by the French National Convention.
6. Examine the measures by which the Prussian leaders after Jena prepared for the War of Liberation.
7. Estimate the significance of the Belgian Revolution of 1830.
8. Describe the attempt of Prince Felix Schwarzenberg to utilize the failure of the revolution of 1848 to set up a unitary Habsburg state.
9. Discuss the attitude of the Papacy towards the question of Italian unity.
10. To what extent may continental uncertainty regarding the intentions of Britain be regarded as precipitating the war of 1914-18 ?

BRITISH HISTORY.

PERIOD 1.

Time allowed—3 hours.

Maximum marks—100,

(Candidates should attempt Question 1 and not more than *four* of the remaining questions. All the questions carry equal marks.)

1. *Either, (a)* Indicate briefly the development of English sea-power during the period 1651-1714, and show, on the outline map¹ of the world provided, the growth of overseas possessions connected with this development.

Or, (6) Discuss briefly Oliver Cromwell's ability as a military leader, and use the outline map¹ of the British Isles to illustrate his campaigns.

2. What evidence is there to support the following judgments passed upon the reign of Henry VII ?—

(a) However deficient it may have been in dramatic relevance, the achievements of the reign were solid and enduring.

(6) Under Henry's fosterage England became fully capable of resuming her place in the first rank of European states.

3. ^c Wolsey was a great man, but it was not he who made modern England.¹ Estimate his significance in British history.

4. 'At the end of the fourth decade of the century Henry VIII had obtained an authority and prestige that even the greatest of his predecessors might have envied.'¹ Examine the nature of the king's power in 1540.

6. How far is it true that the Treaty of Edinburgh (1560) is the dividing line between medieval and modern Anglo-Scottish relations ?

6. Was religion the chief cause of the Anglo-Spanish struggle in Elizabeth's reign ?

7. 'Parliament, which is nothing but the head Court of the King and his vassals' (JAMES I), Consider the view that it was this opinion which led to the Great Civil War.

8. 'No man of equal stature has ever left so little behind him', says a recent writer of Oliver Cromwell. Examine this statement.

9. What part did Stuart foreign policy play in bringing about the Revolution of 1688?

10. Compare the condition of Ireland in 1603 and 1714 respectively.

11. Why did England participate in the War of the Spanish Succession? Did she achieve her aims?

BRITISH HISTORY.

PERIOD 2.

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt Question 1 and any *four* of the remaining questions. All the questions carry equal marks.)

1. *Either, (a)* Trace, with the help of the outline map provided, the rise of British power in India in the eighteenth century.

Or, (6) Describe, with the help of the outline map provided, British naval operations during the Revolutionary and Napoleonic Wars.

2. 'His genius lay in the arts of management.' Discuss this judgment about Walpole.

3. Would you agree that in the first half of the eighteenth century the English village was socially and economically healthy?

4. What were the defects, and wherein lay the strength, of the British constitution during the period 1714-1815?

5. How do you account for the decline in England's prestige during the second half of the eighteenth century?

6. Describe the colonial policy of the younger Pitt.

7. Trace the career of Charles Fox, and estimate his services to the country.

8. Describe the development of the factory system. To what extent had it become established by the end of the reign of George III?

9. Give an account of the rise of English democracy towards the end of the eighteenth century. Do you consider that the French Revolution accelerated or retarded the movement?

10. Trace the history of English political parties after the collapse of the personal government of George III until the peace of 1815. What power did the Crown wield during this period?

BRITISH HISTORY.

PERIOD 3.

Time allowed—3 hours'

Maximum marks—100'

(Candidates should attempt Question 1, and not more than *four* of the remaining questions,
All the questions carry equal marks.)

1. *Hither*, (a) Give a brief account of the development of British interests in Africa between the middle of the nineteenth century and the present day.

Or, (b) Estimate the importance of control of the Suez Canal in the development of communications between the naval bases and the chief port⁸ of the British Empire. Illustrate your answer with the outline map⁸ provided'

2. 'Canning's tenure of the Foreign Office marked the fact that England had changed sides.' Comment on this statement.

3. 'The fifteen years from 1830 to 1845 were among the most critical in the history of England' Discuss this statement, with reference to the social history of the period.

4. 'The fiscal policy of the four years 1842-6 was the beginning of a new era.' 'Without his leadership in those difficult years it is hard to see how revolution could have been avoided.'

Discuss these estimates of the work of Peel in his second ministry.

5. 'As Foreign Minister he achieved nothing tangible for the cause of liberty.¹ To what extent do you consider this to be a just verdict upon the aims and achievements of Palmerston ?

6. Give a critical estimate of the influence upon contemporary opinion of the work of any *one* of the following :—

Bentham, Cobden, Lord Shaftesbury, Robert Owen.

7. 'I really believe that if the late Government had remained in office another year we should have been in dispute, if not at war, with all the world.' Discuss this contemporary comment upon the effects of the policy of the Conservative Ministry of 1874—80.

8. Estimate the importance of the work and career of any *one* of the following :—

Lord Durham, Lord Cronier, Cecil Rhodes.

9. 'He did more than any one man to adapt the machinery of the state to modern and democratic conditions.' Discuss this estimate of the work of Gladstone.

10. 'The action of the House of Lords in this parliament of 1906-10 led up to a deadlock in which the question at issue was whether the relations between the two houses should be defined by statute or determined by the final arbitrament of the House of Lords.' Give an account of the struggle to which this statement refers, and of its results.

11. 'Sir Edward Grey shares with Bethmann-Hollweg the honour of being alone of pre-war statesmen morally unassailable.' Discuss this estimate of Grey with reference to his conduct of British foreign policy up to August 1914.

12. 'The relations of Britain and Ireland were established during centuries when the independence of a hostile Ireland menaced the life of Britain. . . . In the twentieth century this was a fact no longer.' Criticize this statement, with reference to Irish politics during the first twenty-one years of this century.

GENERAL ECONOMICS.

PAPER 1.

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt Questions 1 and 2, and not more than *three* of the remaining questions.
All the questions carry equal marks.)

1. 'The study of Economics has come to be a study of discords rather than of uniformities.' Examine this statement.

2. Explain the significance of the work of Marshall for the study of Economics.

3. Explain the relation between economic welfare and other aspects of human welfare. Illustrate your answer by examples from England and India.

4. Account for the different forms that the tendency towards industrial combinations takes in different countries. What is the probable trend of such combinations in the immediate future?

5. 'There is a constant tendency to equality between price and cost of production, but not because the latter determines the former' (WICKSTEAD). Discuss.

6. 'The study of the supply side of economic activities is more interesting and complicated than that of the demand side.' Explain.

7. What are the determinants of the standard of life of a people? Illustrate your answer by examples taken from England and India.

8. Explain the difference between the principles determining Railway Rates and those governing the price of raw jute.

9. 'The lines on which external capital investment was made in the past are not a little responsible for the severity of the present depression.'⁵ Examine this statement.

10. Discuss the statement that economic justice requires that the rent element in different kinds of income should be eliminated as rapidly as possible.

GENERAL ECONOMICS.

PAPER 2.

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt Questions 1 and 2, and not more than *three* of the remaining questions.
All the questions carry equal marks.)

1. Compare England and the United States of America, with reference to the circumstances in which the former country went off the gold standard in 1931 and the latter in 1933.

2. What steps have been taken by Government during the last decade towards making the economic structure of India more balanced? Comment on their adequacy.

3. Account for the fact that, while the Australian and New Zealand exchanges have been at a discount in terms of sterling, India has, since 1926, been able to maintain the rate of *Is. 6d.* for the rupee.

4. To what extent is the working of the money market in India influenced by the operations of Government? Illustrate your answer, with reference to the last decade.

5. Account for the rise in the price of silver during the last two years. What are the likely reactions of a continued rise in its price on the economy of India and China?

6. 'The Ottawa spirit is a necessity of the times.' Discuss, with special reference to the conditions of India's external trade,

7. Discuss the suitability for India of a heavy programme of public works financed by loan as a measure of recovery from the present depression.

8. Explain the causes of the recent phenomenal expansion in the commerce and industry of Japan and consider the repercussions on the British Empire.

9. Discuss the reaction on the national economics of England, India, and the United States of America if the present shrinkage in world trade became permanent,

10. What tests would you apply with reference to the proper distribution of tax resources between Federal and State Governments? Comment on the existing arrangement in India.

ECONOMIC HISTORY.

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt Questions 1 and 7, and not more than **two** of the remaining questions in *each* section.

All the questions carry equal marks.)

SECTION I.

1. Examine the causes of the increasing pressure of population on the land in India during the last hundred years, and trace its consequences.

2. Discuss the effects of the opening of the Suez Canal on the trade of India.

3. Explain the part played by the managing agent in the industrial progress of India.

4. Discuss the view that the currency policy of the government of India from 1899 to 1913 was largely responsible for the prosperity of the country during that period.

5. Give a brief account of the evolution of the famine policy of the Indian Government since 1860.

6. When was factory legislation in India first introduced? What are the chief landmarks in the progress of this legislation?

SECTION II.

7. Comment on the following :—

'As far as the United Kingdom was concerned a great change took place in her Attitude towards the overseas possessions. At the beginning of

the century (nineteenth) she regarded them as burdens, at the end as assets of value, and they proved to be one of the great factors in producing that reaction from *laissez-faire* which is so characteristic of the modern economic policy of States

8. Discuss the influence of the teachings of Adam Smith on the economic policy of England.

9. Compare the position of the Trade Union in the industrial system of the nineteenth century with that of the Craft Guild in the Middle Ages.

10. Discuss the social effects of the Industrial Revolution in England.

11. Trace the influence of socialist thought on economic legislation in England during the last fifty years.

12. 'The bill on London has become the international currency of commerce.' Explain the significance of this remark with reference to the economic progress of England during the nineteenth century.

PUBLIC ECONOMICS.

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt Questions 1 and 2, and not more than *three* of the remaining questions.
All the questions carry equal marks.)

1. Define taxable capacity. What, in your opinion, is the practical utility of the concept? What are the indications that the taxable capacity of a country is being reached?

2. 'Further interference on the part of the Government in our factories will make it more difficult to compete in foreign markets.'

¹ Drastic changes in our factory laws are essential and every recommendation of the Royal Commission, in this regard must be immediately carried out.'

Discuss those statements from the viewpoint of India.

What is the justification for the special regulation by the State of the hours and working conditions of women and children?

3. 'The taxation of inheritance is not destructive of a country's old capital, but it does prevent potential new capital from coming into being.' Discuss and set out the arguments for and against the general introduction of the taxation of inheritance in India.

4. Explain carefully the case for State intervention in the marketing of agricultural produce. What do you consider the best form which this should take in India?

5. What are the reasons why a state-owned and a state-managed central bank has been objected to, and what do you consider to be the relations between the State and the banking system of a country? Illustrate your answer by reference to recent Indian legislation on the subject.

6. Discuss carefully the incidence of (a) the income-tax, and (b) export duties.

7. What should be the determining factors in solving the problem of double taxation? Is economic allegiance more important than political allegiance?

8. Discuss the case for and against the taxation of industrial profits during a period of inflation.

9. State the effects of a large unfunded debt upon the trade and industry of a country. Should post-war governments have reduced the floating debt?

10. How would you describe the Indian system of taxation ?

What are the tests which you would use in ascertaining the economic justification of any tax or group of taxes ?

11. *Either, (a) Argue the case for and against the payment of war debts to the United States.*

Or, (b) Write a short essay on President Roosevelt's economic policy and its results.

POLITICAL THEORY.

Time allowed 3 hours.

Maximum marks 100.

(Candidates should attempt Question 7, and not more than *four* of the remaining questions. Question 1 carries 24 marks, and the rest are of equal value.)

1. Comment on any four of the following passages :—

(a) 'Men should not think it slavery to live according to the rule of the constitution ; for it is their salvation.' (ARISTOTLE.)

(b) 'The commonwealth is the wealth of a people; understanding by a people, not every group of human beings however brought together, but a multitude united by a common sense of right and by a community of interest.'

(CICERO.)

(c) 'According to truth and the opinion of Aristotle the legislator..... is the people, or a majority of them.....commanding or determining that something be done or refrained from in the field of social human action, under pain of some temporal punishment.'

(MARSIGLIO OF PADUA.)

(d) 'The prince must *appear* all sincerity, all uprightness, all humanity, all religion.....Let the prince, then, look to the maintenance of the state ; the means will always be deemed honourable and will receive general approbation.'

(MACHIAVELLI.)

(e) 'Leviathan is the sovereign state and there is no power on earth which may be matched against it.'

(HOBBS.)

(f) 'The speculative line of demarcation where obedience ought to end and resistance must begin is faint, obscure and not easily definable.'

(BURKE *on the French Revolution*.)

(g) 'The state is the only necessary organ of the community.' (MACIVER.)

(h) 'The problem of sovereignty is the crux of politics.' (LASKI.)

(i) 'Political liberty in the absence of economic equality is held to be a mere myth.'

(COLE.)

(j) 'Communism is the negation of Democracy.'

2. Compare and contrast the chief characteristics of ancient Greek democracy with those of modern democracy.

3. What do you consider to be the proper limits and functions of the State ? Give reasons.

(4) 'The contract theory errs in conceiving the state as created by individuals rather than by a "people".' Critically examine this statement.

6. Discuss the merits and limitations of the psychological approach to politics, with special reference to any of the twentieth-century thinkers.

6. 'Any political philosophy which emphasizes the absolute supremacy of the state must do so only at the expense of individual liberty.' How does this statement bear on the views of Green and Bosanquet ?

7. Estimate the contribution to political thought of any two of the following :—Plato, Green, Burke, Machiavelli, Duguid, Wallas, and Laski.

8. What do you understand by pluralism in politics ? Where does the truth lie in the present-day controversy between the monistic and pluralistic theories of the State ? Illustrate your answer.

9. *Either, (a)* Discuss the place of 'force' in political philosophy.

Or, *(b)* 'In a democracy it is never right to resort to such an expedient as the general strike, because a general election is never far away.' Discuss.

10. How does Socialism differ from Communism ? State how you would defend Socialism against the attacks of Capitalism.

11. 'International Law is nothing more than the moral code of nations.' 'It is the vanishing-point of jurisprudence.' Consider these statements and state how far they are true.

POLITICAL ORGANIZATION,

Time allowed 3 hours.

Maximum marks 100.

(Answer any five questions. All the questions carry equal marks.)

1. What measures do you favour for making the British House of Commons a more effective body ? How do you account for the decline of Parliament in recent times ?

2. Briefly describe the political organization of the United States of Soviet Republics and show in what essential respects it differs from the pre-war democratic organizations.

3. What are the non-democratic features in the political organizations of present day Italy and Germany ? Are they inevitable ? In what ways is modern dictatorship likely to affect democracy in theory and practice ?

4. 'A federal constitution is, as compared with a unitary constitution, a weak form of government' (DICEY). Criticize.

6. Compare the nature and function of constitutional conventions in Great Britain and the United States of America.

6. Examine the part played by the Federal Supreme Court in the working of the constitution of the United States of America.

7. Compare the working of the committee system in the legislatures of England, France, and the United States of America.

8. Write a brief note on the working of dyarchy in your province.

9. 'A double chambered legislature is like a cart with a horse hitched to each end, both pulling in opposite directions.' Do you agree with this view ? State reasons for your answer.

10. Write explanatory notes on any *three* of the following:—(a) rule of law, (b) the committee of ways and means, (c) Chiltern Hundreds, (d) the Wallon Amendment, (e) the Statute of Westminster, (f) a vote of confidence, (g) the Spoils system, (h) Droit Administratif.

11. Describe the relations between the executive and the legislature in Switzerland. How far do they realize the principles of responsible government as understood in the British Empire ?

12. Briefly describe the organization, functions, and work of the League of Nations. Suggest means by which the effectiveness of the League can be improved.

LAW.

PAPER 1.

Time allowed 3 hours.

Maximum marks 100.

(Candidates should attempt not more than six questions, three from group A and three from group B.
All the questions carry equal marks.)

A

1. Either, (a) Explain the constitutional importance of a Governor's Instrument of Instructions.

Or, (b) What is meant by 'ministerial responsibility'? To what extent does it find a place in Governors' Provinces?

2. What is meant by 'Parliamentary sovereignty'? Is it subject to any limitations in actual fact?

3. What are the leading characteristics of fully developed federalism?

4. Explain the principle which finds expression in the Habeas Corpus Acts, giving examples of their use.

5. What are the legal liabilities of the Secretary of State for India? How do they differ from those of other officers of the Crown?

B

6. Describe the sources of the law in British India, and distinguish between their degrees of authority.

7. Distinguish between *ius in re*, *ius in rem*, and *ius ad rem*.

8. Discuss *either* prescription *or* inheritance as a mode of acquiring title.

9. Explain the meaning of 'malice'. What is meant by saying that 'in law a man's motives are generally irrelevant'?

10. What are the exceptions to the rule 'that the title of an assignee cannot be better than that of the assignor'?

LAW.

PAPER 2.

Time allowed 3 hours.

Maximum marks 100.

(All the questions carry equal marks.)

1. Either, (a) When are the judgments of one court relevant evidence in another court?

Or, (b) What is 'judicial Notice'? What principles would guide you in deciding whether to take judicial notice of a matter not expressly mentioned in the Indian Evidence Act?

2. Either, (a) A leases a godown to B. A wall of the godown collapses and injures a passer-by in the street. What additional facts would you require to determine whether A or B was liable for the injury?

Or, (6) A leases a house to B. On the termination of the lease he gives notice to B, who refuses to quit. A enters the house and forcibly removes B and his family. He also removes B's belongings, and holds them as security for arrears of rent due from B. Discuss the civil and criminal liability of A.

3. Either, (a) X is found in possession of dies from which rupees can be made. Is it necessary to prove the purpose for which X was keeping the dies in order to secure his conviction; and, if so, how is the purpose to be proved?

Or, (6) X sends a letter to Y, saying that he intends to kill Y on a certain date. The letter is opened by F's secretary, who hands it over at once to the police. What offence has X committed? Would it be any defence to say that the letter was written as a joke?

4. Either, (a) B executes a bond in favour of A for Rs. 1,000. B fails to pay the amount of the bond on the due date. A then agrees to accept Rs. 400 in cash and a fresh bond for Rs. 600. B fails to make any payment or execute a new bond. Can A sue on the original bond?

Or, (b) A purchases a lorry from a motor shop, saying that he wants it for heavy work. He is given a written guarantee, limiting the liability of the seller to the replacement of broken parts. The lorry is unfit for heavy work, and breaks down as soon as it is used. What remedy has A?

5. Either, (a) X employs a bank to take delivery of a car in Bombay. The bank employs an agent for this purpose. The agent drives the car away from the docks and negligently injures a pedestrian, damaging the car at the same time. Discuss the rights and liabilities of the parties concerned.

Or, (b) X and Y are partners in a shop. Y accepts payment from a customer by cheque. X fraudulently alters the amount of the cheque to a higher amount and disappears after cashing it. Can the customer recover his loss from Y?

6. Either, (a) Misrepresentation may give rise to an action in tort or in contract, or to a criminal charge of cheating. Explain briefly the nature of the misrepresentation which has to be proved in each case.

Or, (b) What is meant by 'an unlawful act', and what are the legal consequences of an agreement to perform such an act?

MORAL PHILOSOPHY.

Time allowed—'3 hours'

Maximum marks 100.

(Candidates should attempt Questions 1 and 2 and not more than three of the remaining questions. All the questions carry equal marks.)

1. What is meant by saying that good (or value) is an ultimate, simple, unanalysable predicate? Discuss the conception of ethics which follows from this view of good.

2. Is the rightness of an act a sufficient motive for doing it? Discuss this question with historical references.

3. What is meant by or involved in the consciousness of obligation? To what is obligation properly attached?

4. Mention the different ways in which Kant formulated his categorical imperative and the aspects of moral life brought out by them.

5. Do you agree with the contention that there can be no moral progress in India unless the people rise from customary to reflective morality? Illustrate your answer by reference to the institution of marriage,

6. 'Moral value resides not in acts or actions but in a certain type of character.' Is it fair to contend that such a view leads to the neglect of social virtues?

7. Do you agree with the view that the promotion of morality by force is a self-contradiction? Discuss, with special reference to the question of the validity of punishment.

8. 'Determinism', 'fatalism', 'karma'. What exactly do these terms signify? Argue the question whether there can be any moral value in determined goodness.

9. 'Problems of ethics arise out of the relations of finite spirits to each other, but can only be rightly determined by reference to the relation of these finite spirits to the Infinite Spirit.' Explain and state your view of the relation of morality to religion,

METAPHYSICS.

Time allowed—3 hours.

Maximum marks 100.

(Candidates should attempt Questions 1 and 2, and not more than *three* of the remaining questions. All the questions carry equal marks.)

1. Explain and critically examine the statement that, as ancient Greek science led to Philosophy, so modern scientists are being led to a philosophical re-examination of their concepts.

2. Indicate concisely what led to—

- (a) the ancients' doctrine of absolute space and time ;
- (b) Kant's doctrine of space and time ;
- (c) the modern problem regarding space-time.

3. Expound and discuss the contention that 'it was the mathematical and rational character of the inorganic universe that made man an idealist in ancient times'.

4. Having stated what you mean by 'matter', present and discuss the principal arguments for and against Materialism as a metaphysical theory.

5. State in outline and critically examine Kant's doctrine concerning the validity of the idea of God.

6. Discuss the philosophical significance of 'the conception of the universe as an endlessly evolving, organised, and systematic Whole, ever advancing in heterogeneity, in richness and value'.

7. Elucidate the claim that Reality must be a system, but one of ultimately real individuals. State concisely the principal metaphysical views to which this claim is opposed.

8. According to Berkeley 'an idea can be like nothing but an idea'. Point out and discuss two opposed conclusions regarding *knowledge* for which Berkeley's proposition might serve as a ~~premise~~ *premise*.

9. Discuss the claim that Philosophy should investigate not only the facts but also the imperatives of reality. Indicate the nature and scope of such an investigation.

LOGIC.

Time allowed—3 hours.

Maximum marks 100.

(Candidates should attempt Questions .1 and 2, and not more than *three* of the remaining questions. All the questions carry equal marks.)

1. Write a short note on the scope and the aim of logic. Is it concerned with things or thought ?
 2. What in your view is the true position of definition in a system of logic?
 3. Discuss the position that in order to discover the true meaning of statements, we must convert them all to the formula *S is P*.
 4. Bring out the real significance of the law of contradiction and discuss the view which contends that not only 'the opposites cannot be joined' is false, but, on the other hand, they are actually combined in single identities.
 5. 'It is false that *A* is not *B*.' Discuss the logical significance of this proposition.
 6. Examine the nature of modality and show how far modal distinctions are distinctions of things or of thought.
 7. State and examine Mill's views regarding the nature and value of syllogistic reasoning.
 8. Compare and estimate the views of Hume, Kant, and Mill about the law of causation and its place in things and our knowledge of things.
 9. What do you think of the contention that Mill's methods are invalid, their nature is not inductive in the sense of generalizing from particulars, and they are no tests of proof ?
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INDIAN PHILOSOPHY.

Time allowed—3 hours.

Maximum marks 100.

(Candidates should attempt *three* out of the first *four* questions, and not more than *three* other questions. All the questions carry equal marks.)

1. Give a general description of the religion and philosophy of the *Rg-Veda*.
2. Discuss and estimate the value of the distinction between 'higher' and 'lower' knowledge, with special reference to Samkara's attitude to this distinction,
3. Show the general relation between Buddhism and Vedantic conceptions in Samkara.
4. Show the relation between *prakrti* and *purusa* in the Samkhya philosophy.
6. Discuss the relation between the abstract universal and the concrete universal, and show how this distinction can be applied to the interpretation of Indian philosophy.

6. Should the Upanisads be regarded as a *revolt against* or as a *development out of* some of the ideas underlying Brahmanic ritualism ?

7. Do the Upanisads allow a plurality of real selves or souls ?

8. What different philosophical tendencies can you distinguish in the *Bhavadgita*, and what is your opinion as to their relative importance in regard to the teaching of the poem as a whole ?

9. Discuss the question whether in Indian thought and practice *Yoga* should be regarded as the production of a negative state of trance and ecstasy, or as contemplative prayer resulting in spiritual vision.

10. Expound and critically examine the statement that Brahman is 'the first principle so far as it is comprehended in the universe, Atman is the first principle so far as it is known in the inner self of man'.

LOWER MATHEMATICS (PURE AND APPLIED).

PAPER 1 (PURE).

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt Questions 1 and 10, and not more than four of the remaining questions. The number of marks carried by each question is indicated at the end of the question.)

1. 'An infinite series in which the terms are alternately positive and negative is convergent if each term is numerically less than the preceding one,' Criticize this statement.

If $u_1, u_2, u_3, \dots$ is a decreasing sequence of positive numbers whose limit is zero, then show that, the series

$$u_1 - \frac{1}{2}(u_1 + u_2) + \frac{1}{3}(u_1 + u_2 + u_3) - \dots$$

$$u_1 - \frac{1}{3}(u_1 + u_3) + \frac{1}{5}(u_1 + u_3 + u_5) - \dots$$

are convergent.

Test the convergency of the series

$$1 - \frac{1}{3}(1 + \frac{1}{3}) + \frac{1}{5}(1 + \frac{1}{3} + \frac{1}{5}) - \dots$$

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2. By means of a substitution of the form

$$y = x^2 + \frac{1}{2}px + m,$$

show that the roots of the equation

$$x^4 + px^3 + qx^2 + rx + s = 0$$

may be obtained by means of the intersections of a circle and a parabola.

Find approximately the real roots of the equation

$$x^4 + 4x^3 + 5x^2 + 4x - 5 = 0.$$

16

3. The area S of a triangle on a given base a is expressed in terms of c and the angles A and B . Prove that

$$\frac{\partial S}{\partial A} = \frac{b^2}{2}, \quad \frac{\partial S}{\partial B} = \frac{a^2}{2}, \quad \frac{\partial^2 S}{\partial A \partial B} = \frac{2S}{\sin^2 C}.$$

Show that, in determining the position of the vertex when the base line is accurately known and the base angles are subject to small limits of error $\pm\alpha$, $\pm\beta$, respectively, the approximate small area at any point of which the vertex may lie is

$$4\alpha\beta \frac{\partial^2 S}{\partial A \partial B}.$$

16

4. (i) if

$$(y+z)^2=4a^2yz, \quad (z+x)^2=4b^2zx,$$

and

$$(x+y)^2=4c^2xy,$$

show that

$$a^2+b^2+c^2 \pm 2abc=1.$$

(ii) The first term of a certain series is a , the second term is b , and each subsequent term is an arithmetic mean between the two preceding terms. Show that the n th term is

$$\frac{2}{3} (b-a) \left\{ 1 - \left(-\frac{1}{2} \right)^{n-1} \right\} + a. \quad 16$$

5. (i) If

$$\sin^{-1} \frac{x}{a} + \sin^{-1} \frac{y}{b} = \sin^{-1} \frac{c}{ab},$$

then show that

$$b^2x^2 + 2xy(a^2b^2 - c^4)^{\frac{1}{2}} + a^2y^2 = c^4.$$

(ii) Prove that

$$\begin{vmatrix} 1, & x, & (a+x)\sqrt{(c+x)} \\ 1, & y, & (a+y)\sqrt{(c+y)} \\ 1, & z, & (a+z)\sqrt{(c+z)} \end{vmatrix} = 0,$$

if

$$\tan^{-1} \sqrt{\frac{a-c}{c+x}} + \tan^{-1} \sqrt{\frac{a-c}{c+y}} + \tan^{-1} \sqrt{\frac{a-c}{c+z}} = 0. \quad 16$$

6. In a hollow cone a number of spheres are put one above another, each sphere touching the one above, the one below, and the sheet of the cone. Show that the radii of the spheres are in U.P. If there be two spheres inscribed in the cone, so that the greater of radius H may touch the lesser of radius r , show that the volume of the cone is

$$\frac{2\pi}{3} \frac{R^5}{r(R-r)}. \quad 16$$

7. The parcel post regulations require parcels to be such that the length plus girth must not exceed 6 feet, and the length must not exceed 3J feet. Determine the parcel of greatest volume that can be sent by post, assuming that the form of the parcel is (i) a right circular cylinder! (ii) a rectangular box,

How would these results be affected if the greatest length permitted were only 1J feet? 16

R. Prove that

$$(i) \int_0^{0.5} \frac{47x - 46 - 8x^2}{0.5\sqrt{2(2x^2 - 2x + 13)}} dx = \log 5,$$

$$(ii) \int_0^{\pi} \cos^n x \cos nx \, dx = \frac{\pi}{2^{n+1}}. \quad 16$$

9. Tangents drawn to the circle $x^2 + y^2 - a^2 = 0$ from the vertices of a self-polar triangle are of lengths t_1, t_2, t_3 . Prove that

$$(i) \quad t_1^2 t_2^2 t_3^2 + 4a^2 \Delta^2 = 0, \text{ and}$$

$$(ii) \quad t_2^2 t_3^2 + t_3^2 t_1^2 + t_1^2 t_2^2 = 4\Delta^2,$$

where Δ is the area of the triangle. 16

10. If the normals at the points Q, R, S on

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} - 1 = 0$$

meet on the ellipse at the point (x_0, y_0) , show that the equation of the circle QRS will be

$$x^2 + y^2 - \frac{b^2}{a^2} x_0 - \frac{a^2}{b^2} y_0 - a^2 - b^2 = 0. \quad 18$$

11. A pentagonal right prism, side of base 1.5 inches, height 1 inch, rests on a horizontal plane. On it is placed a right cone whose base circle touches the sides of the top of the prism. The height of the cone is 2 inches. Draw the plan and an elevation on a plane making 40° with one side of the base of the prism. 18

12. Obtain the equation of a plane as $\mathbf{r} \cdot \mathbf{n} = q$, where $\mathbf{n}$ is a vector perpendicular to the plane. Also obtain the equations of the planes bisecting the angles between two planes given in the above form.

A straight line intersects two non-coplanar straight lines, and moves parallel to a fixed plane. Prove, by the method of vectors, that the locus of a point which divides the intercept in a constant ratio is a straight line.

16

LOWER MATHEMATICS (PURE AND APPLIED).

PAPER 2 (APPLIED).

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt Questions 1 to 3 and not more than three of the remaining questions. The number of marks carried by each question is indicated at the end of the question.)

1. An explosion occurs in a rigid body at rest, and the particles fly off in different directions. If in any subsequent positions they were suddenly connected together, prove that the rigid body thus formed would be at rest.

A gun fires a shot at a target on the same horizontal level and distant a from the gun. The shot just clears a hill which is in the line of fire and afterwards strikes the target. If the hill is of height h , and its base is at distance c from the gun, and if the mass of the gun is n times that of the shot, prove that the gun must have been elevated at an angle

$$\tan^{-1} \left\{ \frac{nh}{n+1} \frac{a}{c(a-c)} \right\}.$$

17

2. State the principle of conservation of energy, and explain the advantage in putting an equation of motion in the form of an equation of energy.

One edge of a square door has a horizontal hinge in a vertical wall. To the middle point A of the opposite edge is fastened a cord which passes over a small pulley set into the wall at the point B reached by A when the door is closed, B being above the hinge. At the other end of the cord is a hanging weight. The door is slowly opened until horizontal, and is then let go. Find the angular velocity of the door in any position; and show that the kinetic energy of the door on slamming is less than the work done in opening it in the ratio $M : M+3m$, where M, m are the masses of the door and weight.

18

3. Define the coefficient of friction, and describe an experimental method of determining this constant for a pair of surfaces. If friction resists motion, how would you reconcile this fact with the statement: 'If there were no friction between our shoes and the ground we should not be able to walk'?

A uniform heavy rod lies on a rough horizontal table and is pulled perpendicularly to its length by a string attached to any point. About what point will it commence to turn?

Show that the ratio of the forces to move the rod, when applied at the centre and through the end of the rod perpendicular to the rod, is $\sqrt{2}+1 : 1$.

19

4. Enunciate the gaseous laws of Boyle and Charles. What is meant by the absolute zero on the air thermometer?

If in the atmosphere the temperature be taken constant, prove that h , the height of the barometer on ascending a height s from the ground, is given by an equation of the form

$$h \exp\left(\frac{zs}{H}\right) = h_0.$$

Still keeping the temperature constant, but allowing gravity to vary, show that the same fall of barometric height will occur after ascending a height z_1 , where $z = \frac{az_1}{a+z_1}$, a being the radius of the earth.

16

5. Establish the existence of the centre of a system of parallel forces, and show that the centre of gravity is the same point at the centre of mass of a body.

A triangular lamina ABC , obtuse-angled at C , stands with the side AC in contact with a table. Show that the least weight which, suspended from B , will overturn the triangle, is

$$\frac{1}{3}W \frac{a^2 + 3b^2 - c^2}{c^2 - a^2 - b^2},$$

where W is the weight of the triangle.

Interpret the above if $c^2 > a^2 + 3b^2$.

16

6. Two particles A, B , of masses $2m$ and m respectively, are tied to points of a string, one end of which, O , is fixed, and OA, AB are equal. The string being initially straight, B is projected at right angles to AB . Show that the angle OAB is never less than a right angle and also that when OAB is again a straight line, the velocity of B is half that of A .

16

7. Define the centre of pressure of a plane area immersed in a liquid. Can you determine the centre of pressure of a curved surface? Give reasons for your answer.

A semi-circular lamina is completely immersed in water with its plane vertical, so that the extremity A of its bounding diameter is in the surface, and the diameter makes with the surface an angle α . Prove that if E be the centre of pressure, and θ the angle between AE and the diameter,

$$\tan \theta = \frac{3\pi + 16 \tan \alpha}{16 + 15\pi \tan \alpha}.$$

16

8. With reference to a machine, what is meant by (i) mechanical advantage, (ii) efficiency?

The figure below (Fig. 1) illustrates a method of raising a block of stone by means of light wedges, C and D , inserted between fixed inclines, A and B , and the underside of the block. The co-efficients of friction between the wedges and the block and inclines are $\tan \phi_1$ and $\tan \phi_2$ respectively, and the wedges are driven forward by equal horizontally applied forces. Prove that the efficiency of this arrangement for raising the load is

$$\frac{\tan \theta}{\tan \phi_1 + \tan (\theta + \phi_2)},$$

where θ is the angle of the wedges.

16

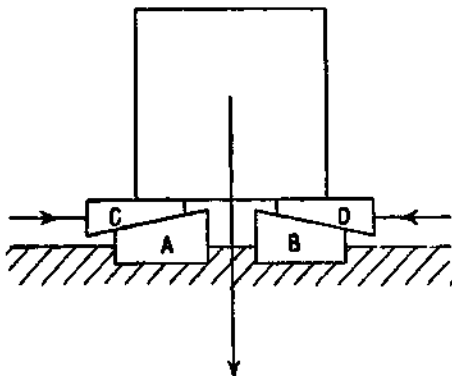


Fig. 1.

9. The length of a conical pendulum is 1 foot, and the mass attached to its extremity is 1 lb. If the time of its revolution be 1 second, find the tension of the connecting wire, the weight of the wire being neglected. Find also the angle which the revolving wire makes with the vertical.

In the annexed figure (Fig. 2) the framework revolves about the vertical axis and the balls move outward for an increase of speed, the weight E sliding up the axis. Show that the angular velocity with which the frame rotates in the position in which the arm ABD makes an angle α with the vertical is

$$\omega = \left\{ \frac{\left(1 + \frac{M'b}{Ml}\right) g \tan \alpha}{a + l \sin \alpha} \right\}^{\frac{1}{2}},$$

where $AB = BC = b$, $AD = l$, $AA' = CC' = 2a$. The balls are each of mass M and are fixed to the arms; the sliding weight E is of mass M' , but the weight of the arms may be neglected.

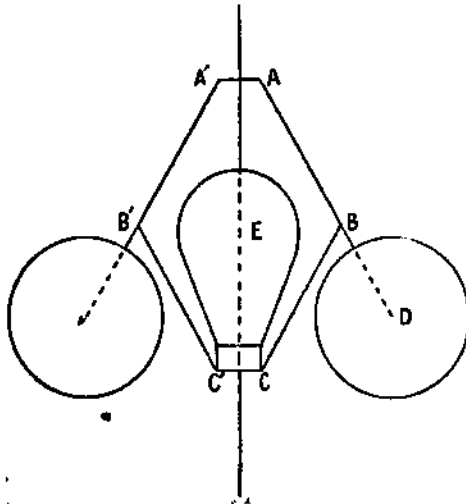


Fig. 2.

16

HIGHER MATHEMATICS (PURE.)

PAPER 1.

Time allowed—3 hours.

Maximum marks 100.

(Candidates should attempt Questions 1 and 2, and not more than *three* of the remaining questions. The number of marks carried by each question is indicated at the end of the question.)

1. If $\sum f_n(x) = s(x)$ is a series of continuous positive functions in a given closed interval, prove that a *necessary and sufficient* condition that $s(x)$ should be continuous is that the series should be uniformly convergent over the interval.

State a sufficient condition for validity of term-by-term differentiation, and examine if $s'(0) = \sum f'_n(0)$, where

$$s(x) = \sum_1^{\infty} f_n(x) = \sum_1^{\infty} \frac{1}{n^2 + n^4 x^2}.$$

20

2. Taking $\sum = 0$ to be the tangential equation of a conic; $P=0$, $Q=0$ those of two points; $I=0$, $J=0$ those of the circular points at infinity, interpret the tangential equations

$$\sum = \lambda PQ, \quad \sum = \lambda IJ, \quad P^2 = \lambda IJ,$$

λ being a constant,

Prove that the conies

$$yz+zx+xy=0$$

and

$$\sin\frac{A}{2}\sqrt{x}+\sin\frac{B}{2}\sqrt{y}+\sin\frac{C}{2}\sqrt{z}=0$$

in trilinears are confocal.

20

3. Express $x^{2n}-2x^ny^n\cos\theta+y^{2n}$ as the product of n real quadratic factors.

If n points, with eccentric angles

$$\left(\alpha+\frac{2r\pi}{n}\right), \quad (r=1, 2, \dots, n),$$

are taken on the ellipse $\frac{x^2}{a^2}+\frac{y^2}{b^2}=1$, ($a > b$), prove that the product of the squares of their distances from the point $(\xi, 0)$ is equal to

$$(u^{2n}-2u^n x^n \cos n\alpha+x^{2n}) (v^{2n}-2v^n x^n \cos n\alpha+x^{2n})/x^{2n},$$

where $2u=a+b$, $2v=a-b$, $2x=\xi\pm\sqrt{\xi^2-4uv}$.

20

4. Show that the curve $x^5+y^5=5ax^2y^2$ is unicursal and has two cusps of the first species at the origin. Trace it.

Express the co-ordinates in terms of a single parameter, and hence, or otherwise, obtain the area of its loop.

18

5. Given the areas of the faces of a tetrahedron, show that the volume is maximum when the opposite edges are at right angles.

20

6. Let $s_n=\sum_{r=1}^n u_r$, $\sigma_n=\frac{1}{n}\sum_{r=1}^n s_r$, $\tau_n=\frac{1}{n}\sum_{r=1}^n ru_r$. Prove that

(i) if $s_n \rightarrow l$, then $\sigma_n \rightarrow l$ and $\tau_n \rightarrow 0$; (ii) if $\sigma_n \rightarrow l$ and $\tau_n \rightarrow \tau$, then $\tau=0$ and $s_n \rightarrow l$.

20

7. Obtain the necessary and sufficient condition for the integrability of the equation

$$Pdx+Qdy+Rdz=0.$$

A doubly infinite family of ellipses lie in parallel planes, are similar and similarly situated to one another, and have their centres on a straight line. Show that the family of ellipses cannot be orthogonal to a family of surfaces unless the line of centres be at right angles to their planes. If this condition be true, find the equation of the orthogonal family of surfaces.

20

8. Show that the system of curves, cutting at a constant angle α other than right, a system of confocal ellipses, is given by

$$x=c \cos \phi \cosh n (\lambda+\phi), \quad y=c \sin \phi \sinh n (\lambda+\phi),$$

where $2c$ is the distance between the foci, and n is $\tan \alpha$.

Show that if $u+ve^{i\lambda}=f(x+iy)$, where $i=\sqrt{-1}$, and λ is a constant, then the two families of curves $u=\alpha$ and $v=\beta$ will intersect one another at a constant angle λ . Use this to obtain the orthogonal trajectory of $r_1 r_2=c^2$, where r_1 and r_2 are the distances of the variable point from two fixed points.

20

9. If p_1 and p_2 be the principal radii of curvature at a point on a surface, prove that the specific curvature is

$$\frac{1}{p_1 p_2}$$

A surface is taken and also its polar reciprocal with regard to a sphere of radius k . Prove that the product of the two specific curvatures of the two surfaces at corresponding points is $\sin^4 \alpha/k^4$, where α is the angle which the radius vector from the fixed origin makes with the tangent-plane in the case of either surface.

20

10. Establish Newton's formulae giving the values of the sums of the powers of the roots of an algebraic equation in terms of the co-efficients.

Calculate the first six of Newton's sums for the equation

$$x^3 - 3qx - qA = 0,$$

and show that the semi-symmetric functions

$$x_1^2x_2 + x_2^2x_3 + x_3^2x_1, \quad x_1^2x_3 + x_2^2x_1 + x_3^2x_2$$

are the roots of the quadratic

$$x^2 + 3qAx + 9q^2A^2 - 27q^3 = 0;$$

and that they are rational numbers if q and A are integers and $4q$ is of the form $A^2 + 27B^2$. 18

11. Let $S_n = \sum_{r=0}^{n-1} T_r$, where $T_r = e^{2\pi i r^{1/n}}$, n and r being integers. Derive,

by contour integration, the formula

$$S_n = \frac{(1+i)(1+i^{3n})}{2} \sqrt{n}.$$

Also prove that

$$\int_0^\infty \cos x^2 dx = \int_0^\infty \sin x^2 dx = \frac{1}{2} \sqrt{\frac{\pi}{2}}.$$

20

12. Establish the following rule for numerical integration, and calculate

$\int_0^1 \frac{dx}{1+x}$ by using nine ordinates :

'Form the sum of the extreme ordinates, twice the sum of the even ordinates, and four times the sum of the odd ordinates; and multiply the result by one-third of the interval of the abscissa.'

18

HIGHER MATHEMATICS (PURE).

PAPER 2.

Time allowed—3 hours.

Maximum Marks—100.

(Candidates should attempt Questions 1 and 3, and not more than *three* of the remaining questions.
The number of marks carried by each question is indicated at the end of the question.)

1. Prove that if $f(x)$ be bounded and integrable (in the sense of Riemann) over the interval $a \leq x \leq b$, then the function

$$F(x) = \int_a^x f(t) dt$$

is continuous throughout the interval, and has a derivative, equal to $f(x)$, at any point x at which f is continuous.

Show that, if $\phi(x)$ has a continuous derivative for all $x \geq 1$, then

$$\sum_{n=1}^x \phi(n) = [x]\phi(x) - \int_1^x [t]\phi'(t) dt \quad (x \geq 1),$$

where the summation extends over all positive integers not exceeding x , and $[x]$ denotes the integral part of x . 20

2. Find the condition that

$$ax^2 + by^2 + cz^2 + 2a'yz + 2b'zx + 2c'xy = 0$$

may represent a pair of planes; and supposing it satisfied, if θ be the angle between the planes, prove that

$$\tan \theta = \frac{2\sqrt{a'^2 + b'^2 + c'^2 - bc - ca - ab}}{a + b + c}.$$

Also show that the planes which bisect the angles between the above planes will be given by

$$\begin{vmatrix} x, ax + c'y + b'z, (aa' - b'c')^{-1} \\ y, c'x + by + a'z, (bb' - c'a')^{-1} \\ z, b'x + a'y + cz, (cc' - a'b')^{-1} \end{vmatrix} = 0. \quad 18$$

3. In the continued fraction

$$a_1 + \frac{1}{a_2 + \frac{1}{a_3 + \dots}}$$

the n th convergent is denoted by p_n/q_n . Prove that

$$(i) \quad p_{n-1}q_n - p_nq_{n-1} = (-1)^n;$$

$$(ii) \quad \frac{p_n}{q_n} = \frac{1}{q_1} - \frac{1}{q_1q_2} + \frac{1}{q_2q_3} - \frac{1}{q_3q_4} + \dots \text{to } n \text{ terms};$$

(iii) $p_{n-1} + q_n$ is not altered, if the numbers $a_1, a_2, a_3, \dots, a_n$ are permuted cyclically. 20

4. Evaluate $\iint \frac{dxdy}{xy}$ through the area enclosed by the four circles

$$x^2 + y^2 = ax, \quad x^2 + y^2 = a'x, \quad x^2 + y^2 = by, \quad x^2 + y^2 = b'y, \quad a, a', b, b' \text{ being all positive.}$$

Also evaluate the triple integral $\iiint \frac{dxdydz}{xyz}$ taken through a volume bounded by six confocal quadrics, the semi-axes of the quadrics being

$$\left. \begin{matrix} a_1, b_1, c_1 \\ a'_1, b'_1, c'_1 \end{matrix} \right\} \text{ and } \left. \begin{matrix} a_2, b_2, c_2 \\ a'_2, b'_2, c'_2 \end{matrix} \right\} \text{ and } \left. \begin{matrix} a_3, b_3, c_3 \\ a'_3, b'_3, c'_3 \end{matrix} \right\}. \quad 20$$

5. Explain the principle of duality, used in differential equations, in the light of reciprocation. Establish formulae of transformation if you reciprocate with regard to the circle $x^2 + y^2 = 1$.

Integrate

$$(y - px)^2 = 1 + p^2 - 2p \frac{y}{x}. \quad 20$$

6. Integrate in series the differential equation

$$x \frac{d^2y}{dx^2} + \frac{dy}{dx} + y = 0. \quad 20$$

7. If any point on a circle of radius a be given by the co-ordinates $a \cos \theta, a \sin \theta$, show that the equations of the axes of the two parabolas through the four points $\alpha, \beta, \gamma, \delta$ are

$$x \cos S + y \sin S = \frac{a}{4} \{ \cos (S - \alpha) + \cos (S - \beta) + \cos (S - \gamma) + \cos (S - \delta) \},$$

$$x \sin S - y \cos S = \frac{a}{4} \{ \sin (S - \alpha) + \sin (S - \beta) + \sin (S - \gamma) + \sin (S - \delta) \},$$

where $4S = \alpha + \beta + \gamma + \delta$.

If the axes of the two parabolas intersect in P , show that the five positions of P obtained by selecting any four of five points on the circle in all possible ways lie on a circle of radius $a/4$. 20

8. If two tetrahedra be such that the lines joining the corresponding vertices are generators of a quadric, then show that the lines of intersection of corresponding faces are also generators of a quadric.

9. (i) Prove that

$$\begin{vmatrix} \frac{1}{1!} & 1 & 0 & 0 & \dots & 0 \\ \frac{1}{2!} & \frac{1}{1!} & 1 & 0 & \dots & 0 \\ \frac{1}{3!} & \frac{1}{2!} & \frac{1}{1!} & 1 & \dots & 0 \\ \vdots & \vdots & \vdots & \vdots & \ddots & \vdots \\ \frac{1}{n!} & \frac{1}{(n-1)!} & \frac{1}{(n-2)!} & \frac{1}{(n-3)!} & \dots & \frac{1}{1!} \end{vmatrix} = \frac{1}{n!}.$$

(ii) Q_n is a function defined as follows :

$$Q_n = (2x+3)Q_{n-1} - (1+x^2)Q_{n-2};$$

$$Q_1 = x, Q_0 = 1.$$

Show that the roots of $Q_n = 0$ are all real. 20.

10. Define Mercator's projection and stereographic projection, as applied to a sphere. Show that each gives a conformal representation and that loxodromes on the sphere become straight lines and equiangular spirals in the two cases respectively. Find out the analytic function which enables you to pass from Mercator's projection to stereographic projection. 20

11. A cone, diameter of base $1\frac{1}{2}$ inches, length of axis 2 inches, rests with its base on the ground, and is cut by a plane inclined at 45° , bisecting the axis. Draw the plan and elevation of the cone, showing the trace of the section plane on its surface, and find the true shape of the section. Obtain a development of the surface of the cone, showing the trace of the cutting plane on the surface.

12. The consecutive daily observations of a function being 0.099833, 0.208460, 0.314506, 0.416871, 0.514136, 0.605186, 0.688921, 0.764329, show that the function is periodic and determine its period. [Differences of order higher than the fourth to be neglected.] 20

HIGHER MATHEMATICS (APPLIED).

PAPER 1.

Time allowed—3 hour.*

Maximum marks—100.

(Candidates should attempt Questions 1 to 3 and not more than three of the remaining questions. The Number of marks carried by each question is indicated at the end of the question.)

1. Explain the work function, and show how it may be used to determine the positions of stable and unstable equilibrium of a body acted on by a number of forces.

A sphere of weight W and radius a lies within a fixed spherical shell of radius b , and a particle of weight w is fixed to the upper end of the vertical diameter. Prove that the equilibrium is stable if

$$\frac{W}{w} > \frac{b-2a}{a}.$$

17

2. In a game of cricket the bowler delivers the ball in a horizontal direction at a height 6 feet above the ground. When the ball is delivered it

has a spin about the axis perpendicular to the plane of motion of its centre of mass, the direction of the spin being such that the friction retards the motion when the ball strikes the ground. The point at which the ball strikes the ground is 18 yards from the bowler and 4 yards from the batsman's wickets. If the co-efficient of friction between the ball and the ground is $\frac{1}{2}$, and the co-efficient of restitution $\frac{1}{2}$, at what height could the ball hit the wickets if it were allowed to go ?

[Take g to be 32 feet per second per second.]

16

3. A body floating in water is displaced so that the new water-line section is parallel to the plane

$$z = lx + my.$$

Prove that, if l, m are small, the displacements of the centre of buoyancy are given by

$$\begin{aligned} Vx &= \alpha l + \beta m, & Vy &= \beta l + \gamma m, \\ Vz &= \frac{1}{2}(\alpha l^2 + 2\beta lm + \gamma m^2), \end{aligned}$$

where α, β, γ are certain constants of inertia of the water-line section and V is the volume displaced.

Deduce the equation to the surface of buoyancy and the condition of stability, assuming the centre of gravity to be at a height h vertically above the original centre of buoyancy.

16

4. Prove Euler's dynamical equations for the motion of a rigid body relative to its centre of mass.

A plane lamina, under the action of no external forces, is set rotating with angular velocity Ω_0 about an axis through its centre of inertia whose angular co-ordinates are $\theta = \alpha$, $\phi = \beta$, referred to the principal axes at the centre of inertia. Prove that at time t the component angular velocities are given by

$$\begin{aligned} \omega_1 &= \Omega_0 \sin \alpha \cos \phi, & \omega_2 &= \Omega_0 \sin \alpha \sin \phi, \\ \omega_3 &= \phi = \Omega_0 \left[\cos^2 \alpha - \frac{A-B}{A+B} \sin^2 \alpha (\sin^2 \beta - \sin^2 \phi) \right]^{\frac{1}{2}}, \end{aligned}$$

where A, B are the moments of inertia of the lamina about the principal axes in its plane at the centre of inertia.

17

5. Define the potential due to attracting masses, and explain its utility in the investigation of attractions.

Two rigid and equal semicircular arcs of matter with uniform section and density are hinged together at both extremities. The matter attracts according to the law of gravitation. If equal and opposite forces applied along the line joining the middle points of the semicircles keep them apart with their planes at right angles, the magnitude of each force will be $4m^2 \log(1 + \sqrt{2})$, where m is the mass of unit length of arc.

17

6. Prove that the mutual potential energy of two magnetic molecules is equal to $\frac{M_1 M_2}{r^3} (\cos \gamma - 3 \cos \theta_1 \cos \theta_2)$, where M_1, M_2 are the magnetic moments of the molecules, r is the distance between their centres, γ is the angle between their axes, and θ_1, θ_2 are the angles between their axes and the distance r .

If the two magnetic molecules lie in the same plane, deduce the component forces and the couple on one of the magnets, and show that the line of action of the resultant force between them divides the line of centres in the ratio

$$(\tan \theta_2 + 2 \tan \theta_1) : (\tan \theta_1 + 2 \tan \theta_2).$$

17

7. A uniformly stretched string, of which the extremities are fixed, starts from rest in the form $y = A \sin \frac{m\pi x}{l}$, where m is an integer and l the distance between the fixed extremities. Prove that, if the resistance of the air be taken into account and be assumed to be $2k$ times the momentum per unit length, the displacement after any time t is

$$y = Ae^{-\kappa t} \left(\cos m't + \frac{\kappa}{m'} \sin m't \right) \sin \frac{m\pi x}{l},$$

where $m'^2 = \frac{m^2 \pi^2 a^2}{l^2} - \kappa^2$, and a is the velocity of waves of transverse vibration.

17

8. A fluid initially at rest is set in motion by impulses applied at the boundaries. Prove that the initial motion is irrotational, and obtain the connexion between the velocity potential and impulsive pressure.

Fluid is originally at rest between two instantaneously concentric spheres ; these surfaces are suddenly set in motion, the inner, of radius a , with velocity U , and the outer, of radius b , with velocity V , in the same direction. Show that the impulse on the inner sphere is equal to

$$\frac{2\pi\rho a^3}{b^3-a^3} \{ (2a^3+b^3)U - 3b^3V \}. \quad 17$$

9. Establish the characteristic equation for the potential at a point where there is no electric charge

$$\frac{\partial}{\partial x} \left(K \frac{\partial V}{\partial x} \right) + \frac{\partial}{\partial y} \left(K \frac{\partial V}{\partial y} \right) + \frac{\partial}{\partial z} \left(K \frac{\partial V}{\partial z} \right) = 0,$$

stating your assumptions.

The space between two concentric spheres of radii a & b , which are kept at potentials A , B , is filled with a heterogeneous dielectric of which the inductive capacity varies as the n th power of the distance from their common centre. Show that the potential at any point between the surfaces is

$$\frac{Aa^{n+1} - Bb^{n+1}}{a^{n+1} - b^{n+1}} - \frac{a^{n+1}b^{n+1}}{r^{n+1}} \frac{A-B}{a^{n+1} - b^{n+1}}. \quad 17$$

10. Write down the equations of motion of a projectile in a medium the resistance of which varies as the square of the velocity. Deduce an equation which connects the inclination of the direction of motion of the projectile to the horizon with the length of the arc described by it.

Show also that, for the complete trajectory of the projectile, the angle θ between the asymptotes is given by

$$\frac{U^2}{V^2} = \cot \theta \operatorname{cosec} \theta + \log (\cot \theta + \operatorname{cosec} \theta),$$

where U is the terminal velocity in the medium, and V is the velocity of the projectile when it moves horizontally. 17

11. Give an account of the quantity called *entropy*, and explain how the increment of entropy in an irreversible transformation is determined.

State the second law of thermodynamics, and show that it is impossible to decrease the entropy of a perfect gas without producing changes in bodies external to it. 17

HIGHER MATHEMATICS (APPLIED).

PAPER 2.

Time allowed—3 hours.

Maximum Marks 100,

(Candidates should attempt Questions 1 to 3, and not more than *three* of the remaining question'. The number of marks carried by each question is indicated at the end of the question.)

1. A solid circular cylinder, of height A and radius a , is enclosed in a rigid hollow cylinder which it just fits, and is formed of an infinite number of parallel equally elastic threads, which will together support a weight W when stretched to the length $2h$. The ends of these strings are fastened firmly to two discs, one of which is then turned through an angle α in its own plane, Assuming

each thread to form a helix, prove that there is a force exerted in the direction of the axis of the cylinder equal to

$$\frac{2W}{a^2} \left(\frac{a^2}{2} - \frac{h}{\alpha^2} \sqrt{h^2 + a^2 \alpha^2} + \frac{h^2}{\alpha^2} \right). \quad 16$$

2. Establish the equation

$$\frac{1}{2w} \frac{d}{dt} (I w^2) = L$$

for the motion of a rigid body in two dimensions, where w is the angular velocity, I the moment of inertia, and L the moment of the external forces about the instantaneous centre of rotation.

A. homogeneous circular cylinder is divided by an axial plane and kept in shape by a band round it. If the cylinder is placed on a smooth horizontal plane with the plane of separation vertical and the band is then cut, prove that the pressure on the plane is instantaneously reduced by the fraction

$$\frac{32}{27\pi^2} \text{ of itself.} \quad 16$$

3. Show how to find the resultant pressure on a curved surface in contact with a fluid at rest under the action of any given forces. Obtain the condition which must be satisfied in order that the resultants of all the pressures on the elements of the surface may be equivalent to a single force.

A solid is formed by turning a parabolic area, bounded by the latus rectum, through an angle θ ; and this solid is held under water, just immersed, with its lower face horizontal. Prove that, if θ be the inclination to the horizon of the resultant pressure on the curved surface of the solid,

$$3 \sin^2 \theta \tan \phi = 5 \sin \theta - 3 \sin \theta \cos \theta - 2\theta. \quad 17$$

4. Find the mechanical force acting on an element of current in a given field of magnetic induction.

A current i flows round a circle of radius a , and a current i' flows in a very long straight wire which is perpendicular to the plane of the circle. The centre of the circle is at distance c from the straight wire. Show that there

is a couple tending to set the two wires in the same plane, of moment $\frac{2\pi i i' a^2}{c}$ or $2\pi i i' c$, according as $c >$ or $< a$.

17

5. In the part of an infinite plane bounded by a circular quadrant AB and the productions of the radii OA, OB , there is a two-dimensional motion due to the production of liquid at A , audits absorption at B , at the uniform rate m . Find the velocity potential of the motion; and show that the fluid which issues from A in the direction making an angle μ with OA follows the path whose polar equation is

$$r = a \sin^{\frac{1}{2}} 2\theta [\cot \mu + \sqrt{(\cot^2 \mu + \operatorname{cosec}^2 2\theta)}]^{\frac{1}{2}},$$

the positive sign being taken for all the square roots.

17

6, Prove the relation, $w = u - e \sin u$, between the mean anomaly m , and the eccentric anomaly u , of a particle moving in an ellipse of eccentricity e under a central force to the focus.

Show that the time average of the kinetic energy of a planet is equal to the value at the end of the minor axis of its orbit.

Show also that the time mean of the distance is

$$a \left(1 + \frac{1}{2} e^2 \right).$$

7. Two liquids, of densities ρ and ρ' , are flowing in parallel streams of velocities U and U' , with their common surface of separation a horizontal plane, the liquids being otherwise unlimited in extent. Show that the common surface of separation may take the form of regular stationary waves of length

$$\frac{2\pi(\rho U^2 + \rho' U'^2)}{g(\rho - \rho')}.$$

Examine the stability of the motion. Explain the flapping of sails and flags.

8. Assuming that the confocal ellipsoids,

$$\frac{x^2}{a^2+\lambda} + \frac{y^2}{b^2+\lambda} + \frac{z^2}{c^2+\lambda},$$

can form a system of equipotentials, and that the potential of the confocal λ is of the form

$$A \sqrt{\frac{d\psi}{(a^2+\psi)(b^2+\psi)(c^2+\psi)}},$$

where A is a constant, obtain the capacity of the ellipsoidal conductor

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1.$$

Find also the capacity of a condenser formed by two confocal ellipsoidal surfaces. *?

9. Obtain Lagrange's equations of motion in the case of n co-ordinates connected by m geometrical relations, n being greater than m .

A heavy rod, whose length is 20 , slips down with its extremities in contact with a smooth horizontal floor and a smooth vertical wall; the rod not being initially in a plane perpendicular to the wall. If θ be the inclination of the rod to the vertical, and ψ the inclination of the horizontal projection of the rod to the intersection of the planes, prove that

$$4 \frac{d^2}{dt^2} (\cos \theta) = \cot \theta \sec \psi \frac{d^2}{dt^2} (\sin \theta \cos \psi) - \frac{3g}{a},$$

$$4 \frac{d^2}{dt^2} (\sin \theta \sin \psi) = \tan \psi \frac{d^2}{dt^2} (\sin \theta \cos \psi).$$

17

10. A mass m of elastic fluid is rotating about an axis with uniform angular velocity ω , and is acted on by an attraction towards a point in that axis equal to (JL) times the distance, (z being greater than ω^2). Prove that the equation of a surface of equal density p is

$$\mu(x^2+y^2+z^2) - \omega^2(x^2+y^2) = x \log \left\{ \frac{\mu(\mu - \omega^2)^2}{8\pi^3} \frac{m^2}{\rho^2 x^3} \right\}.$$

17

11. State carefully Planck's law of radiation, and show that Rayleigh-Jean's law is a particular case of it.

Prove that the Stefan's constant

$$\sigma = \frac{2}{15} \frac{\pi^5 x^4}{c^2 h^3},$$

where x is the Boltzmann's constant; c and h have their usual meanings.

Describe briefly the *isochromatic* method of finding out the value of $\frac{ch}{x}$. 17

LOWER CHEMISTRY.

PAPER 1.

Time allowed—3 hours.

Maximum marks—100.

(Candidate should attempt Question 2, and not more than four of the remaining question!. All the questions carry equal marks)

1. How can you determine the dissociation constant of acetic acid P

Calculate the dissociation constant of acetic acid from the following measurements at 14°1':—

v (dilution)	λ (molecular conductivity)
0.994	1.27
2.02	1.94
16.9	5.26
18.1	5.63
1500	46.6
3010	64.8
7480	95.1
15000	129
00	316

2. What are the important oxyacids of phosphorus ? Describe any two methods of determining their basicity.

3. What are buffer solutions ? Discuss their importance in chemical and biological processes.

4. What are the important ores of manganese ? How is the metal isolated ? How is potassium permanganate manufactured ? Describe the uses of manganese and its compounds.

5. How are the following substances prepared :— (a) hyponitrous acid (6) colloidal gold, (c) iodic acid, (d) potassium persulphate ?

6. Write an essay on radium.

7. How were the rare gases of the atmosphere discovered ? Describe the methods for the isolation of argon and helium. What are the uses of this group of elements ?

8. What are the contributions of Lavoisier to chemistry ? Why is he looked upon as the founder of chemistry and physiology ?

LOWER CHEMISTRY.

PAPER 2.

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt Questions 1 and 2, and not more than three, of the remaining questions. All the questions carry equal marks.)

1. An aliphatic acid A containing carbon, hydrogen, oxygen, and chlorine and no oxygen-containing group other than carboxy, gave the following results on analysis :—0.185 gram gave 0.224 gram of carbon dioxide, 0.077 gram of water, and 0.245 gram of silver chloride. A, on treatment with potassium cyanide; gave a cyanoacid B, which on hydrolysis yielded a dibasic acid C. C₉ when heated, lost 15.3 per cent, by weight of water, and was transformed into an anhydride D. Assign formulae to A, B, C, D, [Ag = 108, Cl = 35.5.]

2. Show how the assignment of a tetrahedral structure to the carbon atom explains the phenomena of (a) optical isomerism, and (6) geometrical isomerism, in carbon compounds.

3. Give an account of the chemistry of aceto-acetic ester.

4. Describe the process of manufacture of pure glycerol from fats and oils. How are (a) oleolein, (6) formic acid, (c) allyl alcohol, (d) isopropyl iodide, and (e) allyl iodide, prepared from or by the use of glycerol ?

5, Describe, in detail, the process of diazotization, as applied to aniline. Show, by equations, the chief reactions of benzene-diazoniutnchloride.

6, What are the reactions associated with the names of (a) Hotinann, (b) Reimer, (c) Kolbe, and (d) Perkin ?

7. Justify the structure now assigned to (a) anthracene, and (6) alizarin.

8. Give an account of the synthesis and chemistry of (a) furfurane, (6) furfuraldehyde, (c) pyrrole, and (d) thiophene.

HIGHER CHEMISTRY.

PAPER 1.

Time allowed—3 hours'

Maximum marks—100.

(Candidates should attempt Question 1, and not more than *four* of the remaining questions. All the questions carry equal marks.)

1. Calculate the order, temperature co-efficient, and arrhenius constant .4 of the reaction between potassium oxalate and iodine from the following results :—

Measurements at 50°.

18'708 grams of potassium oxalate, O'1677 grain iodine and 0.8476 gram potassium iodide in 150 c.c. The unchanged iodine was estimated against a standard thiosulphate solution.

<i>t (time in minutes).</i>	<i>Amounts of thiosulphale required in c.c.</i>
0	14.37
90	9.24
155	6.6
220	4.7
280	3.4

9.354 grains of potassium oxalate, 0.1677 gram iodine, and 0'8476 gram potassium iodide in 150 c.c.

<i>t (time in minutes).</i>	<i>Amounts of thiosulphate required in c. c.</i>
0	14.37
100	11.5
200	8'6
485	4.8

18.708 gram $K_2C_2O_4$, 0.1677 gram I_2 , and 0.8176 gram KI in 150 c.c.

Measurements at 25°.

Measurements at 40°.

<i>t (time in minutes).</i>	<i>Amounts of thiosulphate required in c.c.</i>	<i>t (time in minutes).</i>	<i>Amounts of thiosulphate required in o.c.</i>
0	14.37	0	14'37
7016	10.8	265	11.65
12835	8.4	520	9.36
24000	1.96	1270	4'9

2, What are the important ores of tungsten ? How is the metal obtained ? What are the applications of tungsten and its compounds to industry ? How is a sol. of tungstic acid prepared ?

3, How was rhenium discovered ? Discuss the chemistry of rhenium and its compounds.

4, Write an essay on the present position of the theory of strong electrolytes.

6. Discuss the laws of photochemical reactions. Write a note on photosensitization.

6. Write an essay *either* on the corrosion of metals *or* on the preparation, properties, and uses of colloidal metals.

7. Describe, with practical details, any *two* methods for the determination of complex ions in a solution.

8. Discuss the contributions to chemical science of any *two* of the following:—(a) Haber, (6) Kamsay, (c) Moissan.

HIGHER CHEMISTRY

PAPER a.

Time allowed 3 hours.

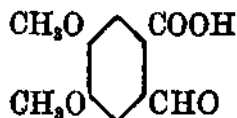
Maximum marks 100.

(Candidates should attempt Questions 1 and 2, and not more than *three* of the remaining questions. All the questions carry equal marks.)

1. An aromatic compound A gave the following results on analysis :—0.152 gram gave 0.456 gram of carbon dioxide and 0.082 gram of water; 0.362 gram gave 40 c.c. of nitrogen measured over water at 30°C. and 765 mm. pressure. [Vapour pressure of water at 30°C=32 mm.] On chlorination, at the boiling-point, A yielded a mono-chloro derivative B. 0.197 gram of B gave 0.187 gram of silver chloride. On treatment with potassium cyanide, the chlorine in B was readily replaced by CN, and the resulting dinitrile C gave on hydrolysis a dibasic acid D containing no nitrogen. D formed a cyclic imide E which on distillation with zinc dust in a current of hydrogen gave a monoacid tertiary base F. 0.640 gram of the platinic chloride of F ($\text{F}_2\text{H}_2\text{PtCl}_6$) gave 0.15/6 gram of platinum. Assign structural formulae to A to F inclusive,

[Ag = 108, Cl = 35.5, Pt = 195.]

2. The following structure has been assigned to a compound. How would you proceed to establish it ?—



3. Describe, with particular reference to experimental details, the mode of employment of the more common reducing agents used in organic chemistry.

4. Write an essay on *one* of the following subjects:—

(a) Free radicals.

(6) The optical activity of nitrogen compounds.

(c) Modern electronic theories on the course of organic reactions.

5. Describe modern commercial methods for the manufacture of (a) methyl alcohol, (6) acetaldehyde, (c) synthetic camphor, and (d) *o*-naphthylamine,

6. How have the following been synthesized :—(a) nicotine, (6) dipentene, and (c) ascorbic acid ?
7. Justify the oxide formula now assigned to glucose.
8. Write notes on:—(a) the Fries reaction, (6) steric hindrance, (c) exhaustive methylation, and (d) flavones.

LOWER PHYSICS

PAPER 1.

Time allowed 3 hours.

Maximum marks 100.

(Candidates should attempt Questions 1 and 2, and not more than four of the remaining questions. The number of marks carried by each question is indicated at the end of the question.)

1. Write an essay on any of the following topics. (*The essay should not contain more than 1,200 words*):—
- (a) A historical account of the discovery of the steam engine. 20
- (6) Construction of steam turbines and their uses.
2. Explain the following :—
- (a) Why does a thermos flask keep drinks cool for many hours ?
- (6) A pendulum clock keeps correct time at London. It loses four minutes per day when taken to Java. Why ?
- (c) Why does dew form more readily on clear nights than on cloudy ones?
- (d) Why does a big hall with rounded domes usually have bad acoustic properties ? 20
3. Explain how to locate a source of sound by the principle of 'sound ranging'. 15
4. The following observations were taken at a station :—
- | | | | |
|---|---|---|------------|
| Barometer corrected and reduced to 0°C, | . | . | 730mm. |
| Relative humidity. | . | . | .5 |
| Maximum temperature in the shade | . | . | 112°F. |
| Minimum temperature | . | . | 80°F. |
| Rainfall | . | . | .mil |
| Visibility | . | . | very poor. |
- Explain how these observations were made, and try to deduce the physical features of the station at the time of observation. 15
5. How would you measure the height of a distant mountain above sea-level ? Explain completely the principles of the apparatus used. 16
6. The value of C_p , specific heat at constant pressure for air is 0.24, and the value of C_v , the specific heat at constant volume is 0.17. Deduce from these data the value of the mechanical equivalent of heat, given that 1 gm. of air occupies at N.T.P. a volume of 784 cubic centimetres. 15
7. Define surface tension, and describe a method for measuring the surface tension of water. Explain why—(a) oil spreads on the surface of water, (6) mercury collects in drops on a clean glass plate. 15
8. Define co-efficient of heat conductivity. How would you find the conductivity of mercury ? 15

9. Prove that if ice be subjected to a pressure of 136 atmospheres, its melting-point becomes -1°C . approximately.

[Latent heat of fusion = 80 cal.

Volume of 1 gm. of ice = 1091 c.c.]

LOWER PHYSICS.

PAPER 2.

Time allowed—3 hours.

Maximum Marks—100,

(Candidates should attempt Questions 1 and 2, and not more than four of the remaining questions. The number of marks carried by each question is indicated at the end of the question.)

1. Write an essay on any one of the following topics. *The essay should not contain more than 1,200 words :—*

(a) Generation of X-rays and their therapeutical and industrial uses,

(6) Generation and distribution of electricity for lighting and industrial purposes. 20

2. Answer the following questions :—

(a) Why does red light penetrate fog more effectively than any other light ?

(6) Can you ever see a star in the daytime ? If so, explain how you do so.

(c) How would you test whether a pair of spectacles is made of pebble or glass?

(d) A tangent galvanometer, calibrated to read amperes, gives different readings in England and India. Explain. 20

3. What are the causes of long and short sight, and how would you remedy them ?

A long-sighted person can see distinctly only objects which are at a distance of (50 cm. or more. What kind of lens should he use to be able to read a book at a distance of 20 cm. ?

4. How would you produce a pure spectrum of sunlight, and how would you measure the wave-length of Fraunhofer lines on it ? 15

5. Describe how a plane polarized wave can be formed by the combination of two circularly polarized waves, one left-handed, the other right-handed. How has the rotation of the plane of polarization been explained on this basis ? 16

6. Describe the construction of a moving coil galvanometer. In what way does it differ from (a) a voltmeter, (6) an ammeter ? 15

7. Describe the construction of a Daniell cell, and explain its mechanism. 248 kilocalories of heat are evolved when one gram-atom of zinc is dissolved in dilute sulphuric acid, and 197 kilocalories are evolved when one gram-atom of copper is dissolved in the same acid. How would you calculate from these data the e.m.f. of the cell ? How far is your calculation correct ? 15

8. How has the ratio of the charge to the mass of the electron been determined?

The value of e/m has been found to be 1.77×10^7 e.m. units. The amount of copper (atomic weight 63) deposited by the passage of one coulomb of electricity is 3.26×10^{-4} gm. Find out the mass of the electron, 15

9. How would you find out the nature of radiations emitted by radium ?
Give full details.

15

HIGHER PHYSICS,

PAPER 1.

Time allowed—5 hours.

Maximum Marks—100.

(Candidates should attempt not more than five questions. All the questions carry equal marks.)

1. Describe a laboratory method of finding out the ratio between the electromagnetic and electrostatic units of electricity,

Prove that—

$$1 \text{ farad} = 9 \times 10^{11} \text{ cm.},$$

$$1 \text{ henry} = 10^9 \text{ cm.}$$

2. Describe how it has been proved that X-rays possess all the characteristics possessed by ordinary light. Illustrate your answer with particular reference to the properties of interference, diffraction, reflection and refraction, and wave-length detenuination.

3. Explain how a triode valve can be used for generating continuously an oscillatory current of high frequency, and prove that its maximum efficiency is 50 per cent.

4. How do you account for the Zcemann effect on classical electrodynamics ? Discuss how the actual results differ from those given by the classical theory.

5. How do you account for anomalous dispersion on the basis of the electron theory of matter? Derive an expression for refractive index, and co-efficient of absorption.

6. Prove that the mean free path of a gaseous particle varies as $\frac{1}{n\sigma^2}$, where n =number of particles, σ =molecular diameter.

The mean free path of air particles at N.T.P. is 10^{-5} cm. What will be the mean free path in an X-ray tube (pressure 10^{-3} mm. of mercury) ?

7. Prove from thermodynamics the following relations :—

$$(i) C_p - C_v = TE\alpha^2 u.$$

[E =bulk modulus of elasticity, v =specific volume, α =co-efficient of expansion.]

$$(ii) \text{ Joule-Thomson effect } \frac{\Delta T}{\Delta p} = \frac{T \left(\frac{\partial v}{\partial T} \right)_p - v}{C_p}.$$

$$(iii) \frac{\partial U}{\partial v} = T \frac{\partial p}{\partial T} - p.$$

8. Explain how Planck's law of radiation has received experimental confirmation.

How would you find out the value of h from radiation experiments ?

9. Write an essay, not exceeding 1,200 words, on *either* of the following subjects :—

(i) Determination of the Avogadro number.

(ii) Physics of the sun,

HIGHER PHYSICS.

PAPER 2.

Time allowed—8 hours.

Maximum marks—100.

(Candidates should attempt Questions 1 and 2, and not more than *four* of the remaining questions. The number of marks carried by each question is indicated at the end of the question.)

1. Write an essay, not exceeding 1,500 words, on any *one* of the following topics:—

(a) The discovery of the neutron, its properties, and its function as a constituent of the nucleus.

(6) Eadio methods for finding out the electrical condition of the upper regions of the atmosphere, and the results to which they lead. 25

2. Explain fully, and prove, the following statements :—

1 electron-volt=23050 cal. per gram-atom=12340 A. units.

1 million electron-volts=~~2~~ mass-energy of two electrons approximately.

Charge on the electron = -4.77×10^{-10} e. s. units.

Avogadro number = 6×10^{23} .

Planck's constant $h=6.54 \times 10^{27}$ units.

Mass of electron= 9×10^{-28} gm. jg

3. Prove that the equivalent wavelength of a particle of mass m moving with the velocity v is given by

$$\lambda = \frac{h}{mv}.$$

Describe briefly how the relation has been experimentally verified. 15

4. How do you know that the nuclei of atoms possess mechanical moment ? Describe a method for finding out the mechanical moment of some nuclei. 15

5. How do you know that a molecule like H_2 rotates ? Describe some experiment in favour of your view. 15

6. What are the different quantum numbers that are required for describing completely the spectra of atoms, and what are their mechanical interpretations ? 16

7. Write explanatory notes on any *three* of the following, each note not to exceed 400 words :—

(a) Induced radio-activity.

(6) The Positron.

(o) Cosmic rays,

(d) Forbidden lines.

8. Explain how extremely low temperatures approaching absolute zero have been produced in recent years by the application (a) of the method of adiabatic demagnetization, (6) of continuous adiabatic expansion of helium. 10

LOWER BOTANY.

PAPER 1.

Time allowed—3 hour'

Maximum marks—100.

(Candidates should attempt Questions 1 and 2, and not more than *three* of the remaining questions. All the questions carry equal marks.)

1. 'Organs frequently change their functions but rarely the fundamentals of their structure.' Show, with the aid of examples, how far this statement is justified.
2. Describe the role of hygroscopic movements in the life of plants. (Give examples from the Indian flora.)
3. Compare from the structural and functional points of view the thallus of *Marchantia* with the leaf of a green land plant.
4. Describe the development of an anther, and the processes of pollination and fertilization in an angiosperm.
5. What are the essential features which distinguish a seed from the megasporangium of *Selaginella* or of *Isoetes* ?
6. Write a general account of *photosynthesis*.
7. Give an account of the physiology, ecology, and life-history of lichens.

LOWER BOTANY.

PAPER 2.

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt Questions 1 and 2, and not more than *three* of the remaining questions. All the questions carry equal marks.)

1. In their mode of life the Bryophyta are sometimes compared to the amphibia in the animal kingdom. Show how far this view is justified.
2. What are the main features of the flora of a sandy desert ? Give Indian examples.
3. Give a comparative account of the modes of reproduction met with in *Vaucheria*, *Spirogyra*, and *Volvox*.
4. Explain the following terms:—heterozygote, linkage, unko-sac, coenocyte, pangenesis.
5. Enumerate the distinguishing features of (a) the Cruciferae, (6) the Papaveraceae. Indicate the economic importance of these families of plants, and briefly discuss their inter-relationships.
6. Give a comparative account of the prothallus in the vascular cryptogams which you have studied.
7. Compare and contrast the stem of a cycad with that of a pine.

HIGHER BOTANY.

PAPER 1.

Time allowed—3 hour"

Maximum Marks 100'

(Candidates should attempt Questions 1 and 2, and not more than *three* of the remaining questions' All the questions carry equal marks.)

1. 'Environment determines the form of plants, heredity, their structure' Comment upon this statement.
2. Write what you know of the ancestry of the angiosperms.
3. Give an account of pollination and fertilization in the gymnosperms.
4. What are the essential features of a 'natural' system of classification? Compare two of the latest systems which you regard as 'natural'.
6. What are the characteristics of the vegetation of—(a) the littoral zone, (b) high altitudes, (c) fast flowing streams? As far as possible, give Indian examples.
6. Discuss the morphological nature of the carpel.
7. Describe the life-history of any highly evolved Ascomycete or Basidiomycete, with special regard to the cytological details.

HIGHER BOTANY.

PAPER 2.

Time allowed—3 hours.

Maximum Marks 100.

(Candidate' should attempt Questions 1 and 2, and not more than *three* of the remaining questions. All the questions carry equal marks.)

1. 'Extreme diversity in habit is not inconsistent with close affinity.' Discuss this statement (rom your knowledge of the monocotyledons.
2. Enumerate the main peculiarities of epiphytic vegetation. Describe the epiphytic flora of any region known to you.
3. Discuss the present position of the mutation theory.
4. What do you understand by a microclimate? Discuss the importance of microclimates in the ecology of plants.
5. Give an account of the structure, distribution, and functions of aerenchyma.
& Discuss the relationships of the Anthocerotales.
7. Show how far a classification of the Ferns, based upon their sporangial characters, can be regarded as a 'natural' one.

LOWER GEOLOGY.

PAPER 1.

Time allowed—3 hours.

Maximum Marks 100.

(Candidates should attempt Questions 1 and 2, and not more than *four* of the remaining questions. All the questions carry equal marks.)

1. Explain, by means of sketches, the difference between normal and overthrust faults, and state the significance of different types of faults, with reference to the tectonic history of the rocks in which they are observed.
2. State the extent to which the character and composition of soils are related to the underlying geological formations and to meteorological conditions. Illustrate with reference to soils in India.
3. Give a brief account of the different conditions under which sandstones, clays, and limestones are deposited. Mention the forms that each of these assume when subjected to a moderate degree of metamorphism.
4. The earth *as a whole* is composed of a succession of shells. Give an account of these and mention how information has been obtained concerning the shells not accessible to direct observation.
5. Give a general account of earthquake phenomena, and illustrate your answer with reference to the North Bihar earthquake of 15th January, 1934. What do you understand to be the cause of this earthquake?
6. What are fossils, and how are they utilized by geologists in establishing the stratigraphical succession of sedimentary rocks and in the correlation of the strata of areas separated by tracts of non-fossiliferous rocks?
7. Describe the distribution of the rocks of the Purana group in India and give a brief classification thereof.

LOWER GEOLOGY.

PAPER 2.

Time allowed—3 hours.

Maximum Marks 100.

(Candidates should attempt Questions 1 and 2, and not more than *four* of the remaining questions. All the questions carry equal marks.)

1. What is a metamorphic rock, and upon what main characteristics does the classification of metamorphic rocks depend? Mention the chief differences in the macroscopic and microscopic features of granite, granite-gneiss, and an acid granulite.
2. Describe a typical foraminifer and explain the use of foraminifera in geology.
3. Describe the composition, structure, and origin of nepheline-syenite, and mention any occurrences of such rocks in India and Burma.

4. How would you distinguish under the microscope between—(a) nepheline and apatite, (6) epidote and staurolite, (c) zircon and sphene ?

5. Explain briefly any *three* of the following:—(a) dipslope, (6) ripple-marks, (c) monocline, (d) metasomatic replacement, (e) weathering,

6. Give a brief account of the occurrence and origin of either (a) the aluminous refractory minerals of India, or (6) the barytes deposits of India.

7. Give a brief account of the chemical composition and physical properties of the pyroxenes. In what general respects do they differ from the amphiboles ?

HIGHEE GEOLOGY.

No paper set in this subject as no candidate offered it.

LOWEK PHYSIOLOGY.

PAPER 1.

Time allowed—3 hours'

Maximum Marks—100.

(Candidates should attempt Questions 1 and 2, and not more than *three* of the remaining questions. All the questions carry equal marks.)

1. Explain the cardio-inhibitory mechanism, and discuss the influences that affect it.

2. Describe the processes and the pathways involved in the transport of fat from the alimentary canal to the circulating blood.

3. How is arterial tone controlled? How can you prove the existence of vaso-dilator fibres in the nerves supplying the limbs ?

4. Give an account of the chemical control of respiration.

6. Describe the changes that take place in a muscle during contraction,

6. What are 'conditioned reflexes'? Explain how they differ from ordinary reflexes.

LOWER PHYSIOLOGY.

PAPER 2.

Time allowed—3 hours.

Maximum Marks—100.

(Candidates should attempt Questions 1 and 2, and not more than *three* of the remaining questions. All the questions carry equal marks.)

1. Discuss the functions of the blood-cells.

2. Trace the fate of the amino-acids produced by the digestion of food proteins.
8. What is the origin of the bile pigments, and what differences may exist between a pigment in the blood and bile respectively ?
4. Describe the significance of the presence of the following substances in urine :—acetone, glucose, albumin, leucine and tyrosine, and indican.
5. Write a short essay on 'internal secretions'.
6. Draw a diagram illustrating the structure of the skin, and give an account of its functions.

HIGHER PHYSIOLOGY.

PAPER 1.

Time allowed—3 hours.

Maximum Marks—100.

(Candidates should attempt Questions 1 and 2, and not more than *two* of the remaining questions. All the questions carry equal marks.)

1. Write an essay on 'Humoral Transmission'.
2. Explain the mechanism of the control of the coronary circulation.
3. Describe an efficient method of determination of H-ion concentration of blood.
4. Give an account of the pigments present in various parts of the human body, and explain, as far as you can, the purposes which they serve.
5. What is glucose tolerance, and what factors modify it ?

HIGHER PHYSIOLOGY.

PAPER 2.

Time allowed—3 hours.

Maximum Marks—100.

(Candidates should attempt Questions 1 and 2, and not more than *two* of the remaining questions. All the questions carry equal marks.)

1. Explain 'reciprocal innervation', and show how it throws light on the nature of movements elicited by stimulation of the praecentral cortex.
2. Discuss the respective significance of the *nervous* and *harmonic* control of glandular activity.
3. Give an account of the results of recent investigations on the photo-chemistry of 'visual purple'.
4. Discuss the fundamental hypotheses of the science of physiology.
6. Discuss the reversibility of the actions of enzymes, and explain why this property does not interfere with their normal activity in the chemical processes of life.

LOWER ZOOLOGY.

PAPER 1.

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt Questions 1 and 2, and not more than *three* of the remaining questions. All the questions carry equal marks.)

1. Write an essay on any *one* of the following :—
 - (a) Recapitulation Theory.
 - (b) Geographical Distribution of Animals.
 - (c) Origin of Vertebrates.
2. Describe the development and functions of the Coelome,
3. Amongst the Platyhelminthes, describe the effects of a parasitic mode of life on the parasites themselves.
4. Briefly describe the various types of larval forms of Crustacea, and discuss the importance of the study of these forms.
5. Give the chief characters of the various classes of Echinodermata, and cite *two* examples of each class.
6. Enumerate the various types of mouth-parts found in the different orders of insects.
7. Write short notes on :—(a) Radiolaria, (b) Loricifera, (c) Beroë, (d) Spongia, and (e) Auricularia.

LOWER ZOOLOGY.

PAPER 2.

Time allowed—3 hours.

Maximum marks—100.

(Candidate! should attempt Questions 1 and 2, and not more than *three* of the remaining questions, All the questions carry equal marks.)

1. Give an account of the evidences for the theory of organic evolution as afforded by the geological distribution of animal remains.
2. Discuss the theory of chromosomes as bearers of hereditary characters.
3. Describe the tadpole larva of an Ascidian, and the changes it undergoes during metamorphosis.
4. Give an account of the different forms of scales and their origin in fishes.
5. Describe the distinctive features and the distribution of the Tridacna.
6. Enumerate the distinguishing characters of the Platyrrhina and Catarrhina.
7. Write a short paragraph on each of the following :—(a) Neoceratodus, (b) Paedogenesis, (c) Tornaria, (d) Stegocephala, and (e) Placenta.

HIGHER ZOOLOGY.

PAPEE 1.

Time allowed—3 hour'.

Maximum marks—100.

(Candidates should attempt Questions 1 and 2, and not more than *three* of the remaining questions. All the questions carry equal marks.)

1. Write an essay on any *one* of the following :—
 - (a) The Origin of Fresh-water Faunas.
 - (b) The Inheritance of Acquired Characters,
 - (c) Orthogenesis.
2. Give a comparative account of the appendages in Crustacea, and indicate the modifications they have undergone from the primitive type.
3. Describe the life-history of *Monocystis*. Give the chief characteristics in which the Coccidia differ from the Gregarinida.
4. Give an illustrated account of the different types of canal systems of the Porifera.
5. Write a detailed account of the different types of Nephridia of the common Indian Earthworm.
6. Classify the Lamellibranchia, and give the main characters of the various orders.
7. Write short notes on :—Polystomella, Bonellia, Megalopa, Teredo Hectocotylization.

HIGHER ZOOLOGY.

PAPER 2.

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt Questions 1 and 2, and not more than *three* of the remaining questions. All the questions carry equal marks.)

1. To Parker a bird seemed to be a 'transformed and one might say, a glorified reptile'. Comment on this statement.
2. Give a detailed account of the Batesian and Mullerian theories of mimicry.
3. Describe the digestive and excretory organs of *Amphioxus*, and discuss the affinities of the Cephalochordates.
4. In what respects does the skull of *Sphenodon* differ from that of *Varanus*? Illustrate your answer with drawings of the skulls of the two animals.
5. Give a comparative account of the modifications in the arterial arches of the Pisces, the Amphibia, and Mammalia.

6. What are the distinguishing characters of the Ratitae ?

7. Write a short paragraph on *each* of the following :—(«) Wallace's line, (6) Dinosauria, (o) Lophodont, (d) Perissodactyla, and (e) Allantois.

ADVANCED GEOGRAPHY.

ASTRONOMY.

No paper set in these subjects as no candidates offered them.

STATISTICS.

Time allowed—5 hours.

Maximum Marks 100.

(Candidates should attempt Questions 1 to 3, and not more than *three* of the remaining questions. Questions 2 and 3 carry 20 marks each ; the other questions carry 15 marks each.)

1. The reported number of attacks of plague in district K (29 places) and in district T (37 places) during the quarter October-December, 1934 is noted below. Calculate for each area an index of concentration defined as

$$\left(\frac{\sigma}{d}-1\right) / (\sqrt{n/2}-1),$$

where d represents the mean deviation, σ the standard deviation, and n the number of affected places.

District K (29 places)											District T (37 places)									
1	2	5	1	1	5	3	1	3	6	3	7	3	14	8	3	1	14	1		
6	1	4	7	1	3	1	4	2	7	3	12	1	2	4	11	24	32			
10	5	14	6	1	2	1	2	2			3	4	3	1	2	4	8	1	1	
											2	4	5	2	2	2	8	1	2	
											3	7	2	5	6					

2. The following statistics extracted from the Survey of the Health of B—(1926-33) give the numbers of infants dying among five social groups from three of the chief causes of death among children. Design a single diagram to exhibit the entire information so as to bring out the Health Officer's remark that 'while causes of death are generally distinguishable in their intensities, they are also definitely associated with social status'. Also calculate the coefficient of mean contingency from the statistics given, and comment on the above remark.

	Illegitimate children	Poorest classes	Unskilled workers	Artisans	Well-to-do classes
Diarrhoea and enteritis	24	17	11	7	1
Prematurity and atrophy	56	33	32	34	24
Bronchitis and pneumonia	22	25	19	11	4

3. The Special Officer for Report on Taxation in M—remarks, ' It appears that the cost of collection has been increasing at a greater rate than land revenue itself.' From the data of land revenue collections (R) and direct demands on land revenue (D) given below, calculate the precise values of the annual trend in each of them, and examine the above remark. Also estimate, by some rapid means, the correlation between (R) and (D).

Year	1904-05	05-06	06-07	07-08	08-00	09-10	10-11	11-12	12-13
(R) in lakhs of Rs.	98	97	91	100	104	89	103	105	105
(D) in lakhs of Us.	17	18	17	18	18	19	19	20	19

Year	1913-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21
(R) in lakhs of Its.	103	104	100	105	109	117	108	116
(D) in lakhs of Us.	18	20	19	20	20	25	29	22

4. Either, (a) Write an essay on ' Statistics in the Service of the State ',

Or, (6) Summarize the recommendations made by Dr. Bowley and Professor Kobertson in their recent report on the organization and publication of statistical information in India.

5. Explain the part played by business forecasting in modern times (i.e., in regard to trade treaties and economic planning).

How would you proceed to construct an economic barometer with existing statistical material in India ?

6. Describe the ' factor reversal test ' and ' time reversal test ' as applied to an index number.

From the data set down below, find (a) index numbers of prices, (6) index numbers of quantity, and (c) index numbers of value, using firstly the prices and quantities of one year as weights, and secondly the mean of the two years as weights.

Examine how far your index numbers satisfy (i) the factor reversal test, and (ii) the time reversal test.

	Wheat		Rice		Cotton	
Year	Mds.	Price	Mds.	Price	Bales	Price
1933	700	3'15	2,460	0'72	14	61'0
1934	890	3'30	2,760	0'80	16	53'0

(Numbers are given in appropriate units.)

7. The distribution among the different kinds of contract of the life policies issued during one year by two life assurance companies is given in the table below. Assuming: that they are random samples, calculate the goodness of fit between the distributions, and locate the divergences, if any between the experience of the two offices.

Description of Contract	Number of Policies issued by	
	Office A	Office S
Whole term of life	35	31
Ditto, limited premiums	103	87
Double endowment	140	78
Endowment (age)	564	330
Ditto (term)	2,961	1,735
Guaranteed profits	1,345	602
Children's policies	357	77
Miscellaneous policies	95	60

8. (a) A three-sided top with two red faces and one white face is spun five times in succession. Show by a graph the probabilities of all possible results of the five spins.

(6) A class of 250 students is divided into groups of the following numbers in successive ascending divisions of ability; 7, 13, 21, 54, 45, 43, 33, 24, 9, 1. Give the appropriate ranges of variation in marks of these divisions if, on the basis of normal distribution, it is intended to mark the average ability 60, and to have the maximum at 100.

9. (a) In an inquiry into overcrowding in cities it was ascertained that for a cubic capacity of 1,000 cubic feet, the average number of residents was 3'52, and that the coefficient of variability of the number of residents was 163 per cent. Determine, on the basis of normal distribution, the chance of finding a locality with ten or more persons in a room of that capacity, and also the average number of residents in the most overcrowded 25 per cent, of the area.

(6) The results of the analysis of batting scores of Bradman and Ponsford during a cricket season are noted below. Comment on the consistency of the two batsmen, and on the significance of the difference, as found, between their batting averages.

Batsman	Average number of runs	Standard deviation with standard error
Bradman	90.02	12.1 ± 2.5
Ponsford	82.22	8.0 ± 1.2

10. How do you find the n th moment of a statistical distribution about its mean?

For a normal distribution, prove the following properties :—

(i) the mean deviation $= \sigma\sqrt{2/\pi}$;

(ii) $\mu_4 = 3\mu_2^2$;

(iii) the standard error of the p th moment about any fixed point $= (\mu_{2p} - \mu_p^2)/n$.

11. Write full explanatory notes on :— β_1 ; t ; z ; biserial correlation ; correlation ratio ; Brunsviga.

PSYCHOLOGY.

Time allowed—3 hour.

Maximum Marks—100.

(Candidates should attempt Questions 1 and 2, and not more than *three* of the remaining questions. All the questions carry equal marks.)

1. Give an estimate of the importance of quantitative methods in Psychology, showing both their positive value and their limitations.

2. In the light of modern developments, what place would you give to introspection as a method in Psychology?

3. How do you understand sensation and perception to be related to each other?

4. How has the term 'apperception' been used in the history of Psychology? What place has it in present-day Psychology?

5. What is meant by temperament, and how far do you consider a classification of the temperaments to be possible?

6. *Either, (a)* Give your opinion of the part played by instinct in human conduct.

Or, (6) What has been the bearing of recent psychological developments on the problem of human freedom ?

7. *Either, (a)* What are the most important differences between the behaviour of a crowd and that of an organized group, and how do you think these differences are to be explained ?

Or, (6) On what grounds has it been held that a group may show greater wisdom in practical judgement than the wisest individual in the group ? Give your opinion of this view.

8. Give your opinion as to the possibility of freeing Psychology completely from metaphysical implications.

EXPERIMENTAL PSYCHOLOGY.

Time allowed—3 hours.

Maximum Marks—100.

(Candidates should attempt Questions 1 and 2 and not more than *four* of the remaining questions. The number of marks carried by each question is indicated at the end of the question.)

1. Discuss the relation between *General* and *Experimental* Psychology from the point of view of (a) assumptions involved, (b) methods employed, and (c) results achieved. 20
2. State and examine Weber's Law giving illustrations of the operation of the law from your own every day observations. 20
3. Distinguish between *figure* and *ground*. Explain and illustrate the conditions under which *figures* tend to emerge from the *ground*. 15
4. 'Reasoning may be called a trial and error process in the field of mental reaction.' Discuss. 15
5. State and examine Spearman's Two-Factor Theory of Intelligence. 15
6. Give a brief account of objective methods of studying emotional reactions. 15
7. Discuss how far it is possible to offer vocational advice to school-leaving pupils in India, in the light of the Birmingham Report. 15
8. Write short notes on:—psycho-physical methods, experimental aesthetics, psycho-galvanic reflex. 15

PHYSICAL ANTHROPOLOGY.

No paper set in this subject as no candidate offered it.

SOCIAL ANTHROPOLOGY.

Time allowed—3 hours.

Maximum Marks—100.

(Candidates should attempt Questions 1 to 3, and not more than *two* of the remaining questions. All the questions carry equal marks.)

1. State succinctly how you account for the existence of the institution of marriage, and briefly indicate the various forms it may take,

2. Discuss the significance of the dying god.
3. What do you mean by the expressions—*lycanthropy*, *metempsychosis*, *polygamy*, *clan*, *race*, *tabu*, and *material culture* ?
4. Illustrate the causes and effects of a fear of the dead.
5. Discuss the causes of and remedies for depopulation among the less civilized races of the modern world.
6. Is it safe to infer from the life and customs of savages to-day the nature of the life and customs of primeval man ? If not, why not, and to what extent ?
7. Explain and illustrate what you mean by 'diffusion of culture', 'independent invention', and 'convergent evolution'. Give instances of each.
8. Compare and contrast the life and culture of any *one* of the following pairs of tribes, with particular reference to the effects of environment, and indicating the geographical habitat of both tribes:—Khasi with Nayar, Bihor with Thanda Pulayan, Gond with Andamanese, Santal with Garo, Naga with Nicobarese.

BRITISH HISTORY.

(Extra Numerum Subject).

Time allowed—3 hours.

Maximum Marks 100.

(Candidates should attempt *one* question in section A, and not more than *four* questions in section B. All the questions carry equal marks.)

A.

1. With the aid of the outline map' provided, describe the Commonwealth of Australia, giving a short history of its component part in each case,
2. Summarize briefly the more important acts of legislation governing the relations of the British Government and the self-governing units of the British Commonwealth from the Durham report to the Statute of Westminster.

B.

3. Edward I is considered as one of the greatest of English kings. What justification is there for this estimate ?
4. 'The effect of the Peasants Revolt of 1381 was to leave the English villein the freest of his class in Europe.' Comment on this.
6. 'By the beginning of the sixteenth century the monastic system in England had outlived its usefulness.' Comment on this and estimate the effect of the system upon medieval England.
6. Trace the rise and decline of the power of the sheriff.
7. 'The machinery used in 1660 to restore the Monarchy was skilfully used to destroy it in 1688.' Comment on this statement,
8. Give some account of the events leading to the revolt of the American colonies. What were the main principles involved ?
9. 'Those far-off, storm-beaten ships, upon which Napoleon never looked, alone stood between him and the dominion of the world.' Is this justified ?

10. Explain the circumstances under which England abandoned the policy of Protection, and estimate the result upon her subsequent history. Why has the policy been once more adopted ?

11. Give a brief account of the legislation in England with regard to education. What have been the main difficulties in this connexion ?

12. What do you understand by the policy of 'splendid isolation'? Why was it abandoned ?

GEOGRAPHY.

(Extra Numerum Subject).

Time allowed—3 hours.

Maximum Marks 100.

(Candidates should attempt question 7, and not more than five of the remaining questions. The number of marks carried by each question is indicated at the end of the question.)

1. On the outline map of Asia provided insert the following :—

(a) Aden, Colombo, Singapore, Hongkong, Yokohama,

(6) Nanking, Angora, Tehran, Delhi, Saigon.

(c) Socotra, Bahrein, Hainan, Formosa, Penang.

Show by thick lines the chief air-routes.

Draw 60° P. isothermal line for January.

OA

2. The following climatic data are of two places in India. In each case suggest a possible locality, and give a description of the climate of the place: —

		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	Range.
A	☼	58	62	74	80	2	92	86	85	84	78	67	60	77	34
	†R	1	0.6	0.5	0.4	0.7	2.9	7.6	7	4.7	6.5	0.1	0.4	26.2	
B	'T	42	42	50	59	64	68	65	61	62	58	51	46	66	26
	†R	3.6	3.7	8.3	2.7	8.9	8.8	21.1	20.7	7.5	1.4	0.5	1.3	79.3	

*T=Mean temperature (°F.).

† R = Mean rainfall (inches).

16

3. Describe and account for the surface circulation of the North Atlantic Ocean.

16

4. What do you understand by the term 'major geographical region'? Illustrate your answer, as far as possible, by reference to Asia.

6. Either, (a) account for the position of deserts on the surface of the earth.

- Or, (6) Account for the distribution upon the globe of the chief areas of natural grasslands. 16
6. Bring out clearly the chief characteristics of equatorial climate and explain its distribution in Africa and South America. 16
7. *Either*, (a) Select *three* ports of first-class importance in the British Isles and analyse the geographical factors implied in their prosperity.
- Or, (6) Write a geographical account of the following :—
- (i) Canberra, (ii) New York, (iii) Cape Town. 16
8. *Either* (a) Bring out clearly the relation of physical geography to economic activity in Australia.
- Or, (6) Divide Germany into natural regions and state the characteristics of each region. 16
9. *Either*; (a) Locate and account for the chief crops of the Gangetic plain.
- Or, (b) Discuss the distribution of wheat and rice production in India. 16
10. Write a geographical account of the Punjab. 16

TABLE OF THE RESULTS OF THE COMPETITIVE EXAMINATION FOR THE INDIAN CIVIL SERVICE, HELD IN INDIA (DELHI) IN JANUARY 1936.

NOTE.—The roll numbers of candidates taking the various Vernacular Languages and Literatures and European Languages are as follows :—

Languages—

Bengali.—104, 106, 107, 108, 109, 110, 111, 114, 115, 116, 118, 119, 120, 126, 128, 131, 137, 240, 248, 259, 303.

Burmese.—1, 2, 4, 5, 6, 14, 16, 17.

Gujarati.—97, 99.

Hindi.—102, 133, 138, 154, 158, 171, 191, 241, 245, 246, 249, 254, 255, 256, 257, 265, 267, 271, 276, 281, 287, 292, 296, 297, 310, 311, 317, 318.

Kanarwe.—92, 93.

Malayalam.—18, 19, 45, 80, 82, 84.

Marathi.—150, 153, 156.

Oriya.—136.

Punjabi (Gurmukhi).—210, 216, 221, 224, 227, 236.

Sindhi.—*UI*.

Tamil.—20, 21, 25, 28, 32, 34, 39, 41, 42, 44, 46, 47, 50, 57, 59, 60, 64, 65, 69, 72, 74, 81, 122, 305.

Telugu.—23, 29, 31, 38, 40, 43, 48, 53, 55, 58, 70.

Urdu.—21, 37, 117, 121, 125, 135, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 174, 175, 176, 180, 181, 183, 184, 187, 189, 192, 193, 194, 196, 198, 201, 203, 204, 205, 207, 208, 211, 212, 218, 220, 225, 226, 228, 229, 230, 231, 232, 233, 237, 244, 247, 250, 251, 253, 260, 268, 269, 272, 273, 274, 277, 278, 284, 286, 288, 289, 291, 294, 306, 307, 308, 312, 315, 316, 319.

French.—100, 144, 146.

Literatures—

Burmese.—2, 5.

Gujarati.—97.

Hindi.—102, 133, 154, 158, 171, 191, 254, 257, 259, 267, 276, 281, 297, 318.

Punjabi (Gurmukhi).—210, 221, 227,

Urdu.—117, 121, 125, 135, 161, 162, 164, 167, 168, 169, 170, 174, 176, 184, 187, 189, 194, 196, 201, 204, 205, 207, 212, 226, 229, 230, 231, 233, 237, 247, 260, 251, 253, 260, 268, 269, 274, 277, 278, 286, 288, 289, 291, 294, 307, 315, 316.

Table of the results of the Competitive Examination for the

Rank in order of merit.	Roll Number.	Name.	Province.	Community.	Obligatory.						Arabic Language.	Arabic Civilization.	Persian Language.	Persian Civilization.	Sanskrit Language.	Sanskrit Civilization.	Pali Language.	Pali Civilization.	Vernacular Literature.	English Literature (General).	English Literature (Period 1).	English Literature (Period 2).	English Literature (Period 3).	English Literature (Period 4).	Latin Language.	Indian History (Period 1).	Indian History (Period 2).	Indian History (Period 3).	Modern European History (Period 1).	Modern European History (Period 2).	British History (Period 1).	British History (Period 2).						
					Essay.	English.	General Knowledge.	Everyday Science.	Vernacular or European Language.	Viva voce.																												
																																	150	160	100	100	150	200
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28																	
1	72	R. Thiruvankatachari	Madras.	Hindu	95	93	63	43	86	100																												
2	165	All Asghar	Punjab.	Muslim	80	66	49	43	121	200			138	127														41	26	47	44							
3	150	S. V. Sohoni	Bombay	Hindu	50	82	68	16	78	140																												
4	310	Shri Pat	U. P.	Do.	105	66	68	26	88	120																				48	66							
5	180	Md. Asim Hussain	Punjab.	Muslim	95	81	47	10	80	200									102	74									61	61								
6	297	C. B. Rao	U. P.	Hindu	10	93	54	3	94	200									164	115			56	68					55		60							
7	69	K. S. Sundararajan	Madras.	Do.	110	72	52	62	88	50																												
8	110	Dwarkanath Chatterjee	Bengal.	Do.	60	76	50	29	73	200																64	52	56	67	54	64	63						
9	138	Radheshyam Ojha	B. & O.	Do.	60	51	57	27	87	120																	80	88	75		62	65	49					
10	231	Sayyid Altaf Hussain	Punjab.	Muslim	75	92	45	41	116	50	153	151							120	102																		
11	175	Dharam Swarup	Do.	Hindu	75	73	51	16	113	200			128	112																27	47	59						
12	174	T. N. Dar	Do.	Do.	115	111	44	18	79	100			92						112																			
13	84	P. P. Vaidyanathan	Madras States	Do.	70	76	55	54	91	50																					68	61						
14	153	Harnandan Prasad	B. & O.	Do.	90	76	56	33	95	60									158																			
15	251	Akhter Hamid Khan	U. P.	Muslim	65	96	45	33	104	150									90	99	73		55								60	47						
16	288	Niaz Ahmad	Do.	Do.	80	83	49	36	84	120									104									76		51	54	76	50					
17	60	P. V. Ramanathan	Madras.	Hindu	65	91	58	16	82	50																	67	62	59									
18	230	Sardar Ata Mohd. Khan.	Punjab.	Muslim	20	83	42	23	114	180			92	115					104																			
19	233	Mohd. Hussain Sud	Do.	Do.	65	102	45	49	114	30			146	130					95										60	48								
	311	Chandra Prakash Srivastava.	U. P.	Hindu	65	84	44	59	65	90																												
21	228	Nazir Ahmad	Punjab.	Muslim	85	80	56	17	104	150			99	128					90										52	52								
22	46	S. Rajagopalan	Madras.	Hindu	60	52	59	47	63	110																												
23	108	Nirmal Kumar Bhattacharyya.	Bengal.	Do.	120	45	56	36	92	100																												
24	104	Abul Mowla Falsur Rahman.	Do.	Muslim	70	81	67	24	92	180																												
25	42	K. Narayanan	Madras.	Hindu	90	109	49	11	106	70																				62	65	50	52					
26	51	A. S. Karayana Pillai	Madras States.	Do.	112	69	52	56	94	50										86			58															
27	137	J. C. Majumdar	B. & O.	Do.	45	76	58	44	85	50																												
28	28	R. M. Halasyam	Madras.	Do.	60	67	59	42	105	100																												
29	254	Gauri Prasad Bagchi	U. P.	Do.	70	48	26	23	91	50					137	138			167								46											
30	131	Tarak Nath Ghosh	B. & O.	Do.	115	64	48	69	73	130																			44	44								
	267	Shanti Swarup Gupta	U. P.	Do.	80	70	51	42	88	70									149											53	39		54					
32	169	Md. Bashir Khan Malik.	Punjab.	Muslim	60	65	46	27	87	150									102									64	60	59		58	46					
33	44	C. Parthasarathy	Madras.	Hindu	70	114	68	7	104	70																				87								
34	168	Khurshid Anwar	Punjab.	Muslim	75	53	45	22	122	40	87	163							116																			
35	164	Sh. Mohammed Yusuf	Do.	Do.	65	97	32	26	100	150			124	93					94													47						
36	176	S. M. Omar Fa oq	Do.	Do.	35	75	33	27	112	150			116	98					112												37	39						

[illegible]

[illegible]

Indian Civil Service, held in India (Delhi) in January 1936—*contd.*

British History (Period 2).		General Economics.		Economic History.		Public Economics.		Political Theory.		Political Organisation.		Law.		Moral Philosophy.		Metaphysics.		Logic.		Indian Philosophy.		Lower Mathematics.		Higher Mathematics (Pure).		Higher Mathematics (Applied).		Lower Chemistry.		Higher Chemistry.		Lower Physics.		Higher Physics.		Lower Botany.		Higher Botany.		Lower Geology.		Higher Geology.		Lower Physiology.		Higher Physiology.		Lower Zoology.		Higher Zoology.		Advanced Geography.		Astronomy.		Statistics.		Psychology.		Experimental Psychology.		Physical Anthropology.		Social Anthropology.		British History.		Geography.		Extra Num- erum		Total.		Handwriting deduction.		Final Total.		Remarks.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
100	200	100	100	100	100	100	200	100	100	100	100	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200

Table of the results of the Competitive Examination for the

Rank in order of merit.	Roll Number.	Name.	Province.	Community.	Obligatory.										Arabic Language.	Arabic Civiliation.	Persian Language.	Persian Civiliation.	Sanskrit Language.	Sanskrit Civiliation.	Pali Language.	Pali Civiliation.	Vernacular Literature.	English Literature (General).	English Literature (Period 1).	English Literature (Period 2).	English Literature (Period 3).	English Literature (Period 4).	Latin Language.	Indian History (Period 1).	Indian History (Period 2).	Indian History (Period 3).	Modern European History (Period 1).	Modern European History (Period 2).	British History (Period 1).	British History (Period 2).		
					Essay.	English.	General Knowledge.	Everyday Science.	Vernacular or European language.	Viva voce.																												
											150	150	100	100																							150	200
72	308	Shyam Lal	U. P.	Hindu	55	52	38	43	48	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
74	146	D.N. Daruwalla	Bombay	Parai	55	59	46	47	57	60	..	..	..	..	..	..	..	..	..	..	..	39	42	..	..	..	..	..	..	..	..	..	..	..				
75	64	N. R. Srinivasan*	Madras	Hindu	55	71	59	19	74	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	72	72	..	..	74	58					
76	256	Ram Pal Bhardwaj	U. P.	Do.	70	82	40	38	76	60	..	..	..	..	..	..	..	..	..	108	..	..	42	53	..	..	..	..	..	..	..	..	..	..				
77	102	Ayodhya Prasad Mathur.	Rajputana States.	Do.	75	61	33	7	110	60	..	..	..	..	71	78	..	..	133	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
78	59	P. Sivagnanam	Madras	Do.	50	41	35	32	88	100	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	38				
79	144	J. E. A. Brown	Bombay	Anglo-Indian.	100	92	58	32	15	90	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13	..	..	..	..	..	..	..	46	58				
80	100	J. C. Kakar	N.W.F.P.	Hindu	45	47	24	11	36	160	..	..	..	..	..	..	..	..	..	90	..	..	46	..	..	..	..	..	..	50	44	64	44					
81	121	S. Nasiruddin Hyder Rezw.	Bengal	Muslim	30	44	47	7	97	70	..	..	100	101	..	..	..	..	110	..	..	..	..	..	..	..	..	..	50	47	..	..	..	..				
	205	Sadiq Ali Shah	Punjab	Do.	35	34	44	22	109	90	..	..	118	100	..	..	..	..	34	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
83	181	Manzur Hussain	Do.	Do.	50	45	37	52	68	200	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	38	41					
84	244	Shanti Swaroop Mathur.	Delhi	Hindu	50	56	49	22	58	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	41	..	..	39	..	52					
85	236	Davinder Singh Sahi	Punjab	Sikh	55	37	45	50	108	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
86	25	V. Doraiswamy Ayyar	Madras	Hindu	55	58	45	54	84	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
	225	Ganga Dhar Malik	Punjab	Do.	80	51	46	27	89	60	..	..	74	105	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
88	109	Ramaraman Bhatta-Charjya.	Bengal	Do.	50	38	45	40	89	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	45	49	..	..	..	..				
	286	Muqucem-ud-Din Ahmed.	U. P.	Muslim	15	62	45	14	110	120	..	..	65	105	..	..	..	..	..	84	79	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
90	32	V. Krishnamoorthy	Madras	Hindu	70	40	41	15	89	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	51				
	158	Gangashankar Pandya	C. P.	Do.	30	48	43	9	83	60	..	..	..	..	..	..	..	..	..	180	..	..	..	..	..	..	..	..	..	..	62	55	85	41	47			
92	227	Sham Singh Pantal	Punjab	Sikh	5	31	44	15	112	120	..	..	..	..	..	..	..	..	..	115	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
93	99	G. N. Dwivedi	Western India States.	Hindu	35	56	39	7	91	30	..	..	..	..	134	65	..	..	..	..	..	..	..	..	..	..	..	65	..	..	47	..	63	46				
94	296	Ramesh Chandra	U. P.	Do.	75	62	38	55	86	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
95	116	Gopal Chandra Dutt.	Bengal	Do.	45	84	44	5	81	120	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	56	33	51	..	..	60	46				
96	153	D. Manekji Dand	C. P.	Do. (Jain).	70	28	41	40	40	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
97	319	Mohammad Zaki	U. P.	Muslim	55	37	45	5	72	80	..	..	74	101	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	50	51	48	50	..			
98	307	Prem Nath Sharma	Do.	Hindu	50	57	51	18	72	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	39	..	35	48	57	45		
99	228	Parkash Lal Kochhar	Punjab	Do.	40	32	33	12	77	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	46	62	..	..	..			
100	815	Tajuddin Ahmad	U. P.	Muslim	25	19	56	4	87	150	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	33	54	..	..	35	43		
101	97	R. K. Acharya	Gujrat State.	Hindu	65	41	33	22	71	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	51	..	..	..	..		
102	164	M. Said Ahmad	Punjab	Muslim	65	55	41	18	118	40	100	46	112	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
103	27	Md. Habibullah	Madras	Do.	55	40	34	31	88	40	120	82	136	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
104	45	K. C. Radhakrishnan <th>Do.</th> <th>Hindu</th> <th>70</th> <th>73</th> <th>33</th> <th>28</th> <th>64</th> <th>40</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th>	Do.	Hindu	70	73	33	28	64	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
	93	M. S. Swaminathan <th>Mysore State.</th> <th>Do.</th> <th>70</th> <th>49</th> <th>43</th> <th>27</th> <th>90</th> <th>110</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>..</th> <th>49</th> <th>28</th>	Mysore State.	Do.	70	49	43	27	90	110	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	49	28		
106	20	Srinivasa Bhaskaran	Madras	Do.	55	35	46	21	77	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	45	32	47	..	..	..		
107	303	Asoke Kumar Roy	U. P.	Do.	40	59	34	36	75	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
108	60	C.R.Soundararajan	Madras	Do.	65	64	46	23	95	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	69		

* Not eligible for appointment.

[illegible]

Rank in order of merit.	Roll Number.	Name.	Province.	Community.	Obligatory.																											
					Poetry.	English.	General Knowledge.	Everyday Science.	Vernacular or European Language.	Viva Voce.	Arabic Language.	Arabic Civilization.	Persian Language.	Persian Civilization.	Sanskrit Language.	Sanskrit Civilization.	Pali Language.	Pali Civilization.	Vernacular Literature.	English Literature (General).	English Literature (Period 1).	English Literature (Period 2).	English Literature (Period 3).	English Literature (Period 4).	Latin Language.	Indian History (Period 1).	Indian History (Period 2).	Indian History (Period 3).	Modern European History (Period 1).	Modern European History (Period 2).	British History (Period 1).	British History (Period 2).
					160	150	100	100	150	200	200	200	200	200	200	200	200	200	200	200	200	100	100	100	100	100	100	100	100	100	100	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28					
109	305	K. R. Sampath	U. P.	Hindu	75	64	48	46	67	40																						
110	102	Abdul Hayl	Punjab	Muslim	35	38	47	19	74	30			98	103																		
111	204	Ram Lal Gupta	Do.	Hindu	20	48	49	15	66	50																						
112	276	Digambar Rao Limaye.	U. P.	Do.	NIL	21	34	34	78	80																						
113	186	Bhabakrushna Mahanti.	B. & O.	Do.	20	38	52	44	95	70																						
	163	Sh. Abid Ali	Punjab	Muslim	70	34	44	9	52	70																						
115	29	K. Jagannadhachari.	Madras	Hindu	50	29	28	29	53	60																						
116	166	Vir Bhan Amar	Punjab	Sikh	16	76	51	30	77	40																						
117	280	Mohammad Aslan Farooqi.	U. P.	Muslim	40	65	37	27	86	50			69																			
118	246	Rajkade Hardeo Sahai.	Delhi	Hindu	65	70	37	5	68	30																						
119	59	Manipur Ram Singh	Madras	Do.	30	59	48	10	52	140																						
120	147	J.J.Hemrajani	Bombay	Brahmo.	50	43	40	27	63	60																						
121	250	G. Ibrahim Ahmad	U. P.	Muslim	50	24	38	7	86	70	94	87	65																			
122	247	Shiva Shankara	Delhi	Hindu	65	45	42	7	68	70			67																			
123	271	Pradyumna Chandra Joshi.	U. P.	Do.	A	71	46	21	94	50				45																		
124	277	Mahmud Hasan Khan	Do.	Muslim	10	3	51	7	69	140	102	32	67																			
125	249	Kashilechandra Sen	Bengal	Hindu	65	63	28	4	75	30																						
126	120	Manindra Chandra Mukhopadhyay	Do.	Do.	50	54	38	4	58	60																						
127	272	Kandhya Lal Saxena	U. P.	Do.	60	47	46	21	77	10			84	163																		
128	241	Som Parkash Bedi	Delhi	Sikh	40	43	48	12	56	30																						
129	126	Krishna Kumar Bose	B. & O.	Hindu	50	61	35	27	96	40																						
	218	Satya Prakash Tejpal.	Punjab	Do.	40	60	36	16	90	30																						
131	291	Nurul Hasan Hashmi	U. P.	Muslim	20	41	44	12	89	80			58	99																		
132	249	Jagdish Prasad Agarwala.	U. P.	Hindu	20	44	52	4	73	80																						
132	170	Aziz Ahmad	Punjab	Muslim	20	54	45	21	61	40																						
	221	Bawa Bhupinder Singh	Do.	Sikh	NIL	31	39	21	96	130																						
135	281	Nirmal Ram Mehta	U. P.	Hindu	45	55	28	8	63	50																						
136	273	Md. Fasihullah Khan	Do.	Muslim	15	55	35	17	95	70																						
137	43	B. Neelakantha Reddi	Madras	Hindu	60	64	22	14	51	120																						
138	289	Niranjan Singh	U. P.	Do.	40	55	36	3	70	120				30	70																	
139	38	K. Nagabhushana Rao	Madras	Do.	25	40	45	3	51	10																						
	39	S. Nagoorwamy	Do.	Do.	65	38	32	10	91	40																						
	101	Vod Prakash Mehta.	Punjab	Do.	60	55	38	21	66	100																						
142	37	Muhammad Abdul Hafeez.	Madras	Muslim	50	40	40	13	54	90																						
143	204	Zahiduddin Ahmad Quraishi.	U. P.	Do.	20	29	36	5	72	40				71	96																	
144	31	K. S. Kameswara Rao	Madras	Hindu	25	34	39	9	72	10																						

[illegible]

Table of the Results of the Competitive Examination for the

Rank in order of merit.	Roll Number.	Name.	Province.	Community.	Obligatory.						Arabic Language.	Arabic Civilization.	Persian Language.	Persian Civilization.	Sanskrit Language.	Sanskrit Civilization.	Pali Language.	Pali Civilization.	Vernacular Literature.	English Literature (General).	English Literature (Period 1).	English Literature (Period 2).	English Literature (Period 3).	English Literature (Period 4).	Latin Language.	Indian History (Period 1).	Indian History (Period 2).	Indian History (Period 3).	Modern European History (Period 1).	Modern European History (Period 2).	British History (Period 1).	British History (Period 2).						
					Essay.	English.	General knowledge.	Everyday Science.	Vernacular or European Language.	Viva Voce.																												
																																	150	150	100	100	180	200
144	284	Prayag Narayan Modawal.	U. P.	Hindu	55	38	28	27	60	50	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...						
146	193	Mohik Mohammed Iqbal.	Punjab.	Muslim	20	41	42	21	110	110	70	20	...	...	...	...	...	...	...	...	...	...	...	...	...	29	33	...	...	...	...	...						
147	21	S. Bhiman	Madras	Hindu	65	42	31	10	75	80	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	62	...	36	18	...	43							
148	274	Ch. Sarwatullah Kirmani.	U. P.	Muslim	20	41	37	5	70	50	...	...	77	80	...	...	...	...	66	...	...	...	...	...	...	...	...	...	...	...	...							
149	208	Syed Logman Halder	Do.	Do.	65	49	33	Nil	100	60	...	...	49	...	...	...	...	...	86	...	...	...	...	...	...	...	...	...	...	35	27							
150	171	Baldev Kumar	Punjab.	Hindu	25	48	42	8	58	20	...	...	...	...	...	...	...	...	100	...	...	...	...	...	...	43	48	41	...	36	41							
151	55	K. Sambasiva Rao	Madras	Do.	55	46	32	43	58	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36	...	...	...	...	...							
152	190	Ratan Chand Mehra	Punjab.	Do.	50	33	39	9	A	120	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	81	...	26	33	40								
153	196	Musharrat Ali	Punjab.	Muslim	15	23	46	Nil	93	80	...	...	...	...	...	...	...	...	68	...	...	...	...	...	...	20	57	16	13	...	...							
154	118	Amiya Kumar Mitra	Bengal.	Hindu	10	25	29	58	73	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	40	...	...	...	...	...							
155	48	Bh. Ramamoorthy	Madras	Do.	20	36	20	44	56	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
156	92	G. R. Suryanarayana	Mysore State.	Do.	Nil	38	47	13	80	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	42	...	45	...	...	...	...							
157	255	Surya Kumar Bhattacharya.	U. P.	Do.	55	46	36	35	67	30	...	...	...	...	...	...	...	...	...	67	41	...	24	...	...	...	...	...	...	...	...							
158	201	R. P. Ohri	Punjab.	Do.	45	16	30	6	93	60	...	...	96	91	...	...	...	...	46	...	...	...	...	...	32	25	...	...	...	...	...							
159	19	K. Bhaskara Menon	Madras	Do.	5	62	30	41	81	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	43	46							
160	211	Shadi Lal Saluni	Punjab.	Do.	45	13	35	3	100	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	40	38	48	22	28	...	...							
161	205	Girish Chandra	U. P.	Do.	20	9	42	Nil	63	70	...	...	...	...	...	...	...	...	...	...	...	...	...	...	46	45	...	26	35	33	...							
162	128	Sudhir Kumar Chaudhuri.	B. & O.	Do.	15	34	34	26	68	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
163	111	Krishna Bihari Chattopji	Bengal.	Do.	40	34	31	5	60	120	...	...	...	80	48	...	...	...	...	...	...	...	...	...	43	...	27	...	...	...	...							
164	169	M. Ata Chaudhary	Punjab.	Muslim	50	13	38	17	92	30	...	...	70	...	...	...	...	...	82	43	26	...	15	...	...	...	...	...	...	...	...							
165	198	Narinder Singh	Punjab.	Sikh	30	27	40	5	85	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	29	54	...	34	42	37							
166	119	Atun Ranjan Mukerji	Bengal.	Hindu	14	19	22	2	58	180	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	24	36	...	...	...	...							
167	74	C. S. Venkatesan	Madras	Do.	65	55	29	32	57	50	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
168	237	Mohd. Sharif Gulzar	Punjab.	Muslim	10	9	40	23	70	30	...	...	...	...	...	...	...	...	74	...	...	...	...	...	...	...	...	...	...	...	...							
169	47	C. S. Ramalingam	Madras	Hindu	5	33	30	4	56	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38	42	...	...	37	...							
	161	M. Abdul Bari	Punjab.	Muslim	50	19	15	Nil	63	90	...	...	71	84	...	...	...	...	48	...	...	...	...	...	...	...	...	...	...	...	...							
171	187	S. Khurshid Ahmad	Punjab.	Do.	20	22	23	23	77	60	...	...	...	...	...	...	...	...	48	...	...	...	...	...	...	...	...	...	...	...	...	22						
172	207	Malik Sardar Khan	Punjab.	Do.	50	23	21	Nil	75	50	...	...	...	...	...	...	...	...	54	...	...	...	...	...	...	35	23	33	...	27	24							
173	34	Jadunabhan Keshan.	Madras	Hindu	65	25	41	2	100	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30	4	...	29	40							
174	192	Mohamed Anwar	Punjab.	Muslim	5	28	24	12	87	10	77	37	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...						
175	117	M. Anwaruddin Hasan	Bengal.	Do.	15	40	25	8	56	50	...	...	70	57	...	...	...	...	38	...	...	...	...	...	...	20	15	...	...	...	...							
176	58	S. M. Y. Sastry	Madras	Hindu	50	67	55	23	79	A	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	72	Nil	...	A	...	...							
177	184	Abdul Hameed Khalid	Punjab.	Muslim	10	23	20	Nil	95	30	...	...	95	56	...	...	...	...	40	...	...	...	...	...	...	30	27	...	...	...	...							
178	23	C. N. Chengalvarayan	Madras	Hindu	20	20	44	30	Nil	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...						
179	125	K. Sreenivasan	Bengal.	Do.	20	31	27	26	40	40	...	...	...	...	...	...	...	...	...	...	30	...	...	...	...	...	...	...	...	...	...	...						
180	208	Fyad Abdul Ghafor Shah.	Punjab.	Muslim	5	31	22	21	84	10	...	...	90	...	...	...	...	...	...	54	...	...	...	...	...	...	...	...	...	...	...	...						
181	114	Jyotirmoy Datta	Bengal.	Hindu	5	Nil	21	14	62	60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...						
182	212	Shah Din*	Punjab.	Muslim	10	39	14	12	92	50	...	...	55	...	...	...	...	...	18	...	...	...	...	...	...	...	...	20	...	Nil	...	...						
183	40	M. L. Narasimham	Madras	Hindu	10	27	31	8	48	10	...	...	...	...	...	...	...	...	...	66	...	...	...	...	...	...	24	...	25	...	...	...						
	203	M. N. Raina	Punjab.	Do.	15	19	18	Nil	64	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30	16	32	23	10	24	17						

*Has not offered any Extra

NOTE.—'A' denotes absence

*Indian Civil Service, held in India (Delhi) in January 1936-*concl'd.*

[illegible]

Numerum Subject'
from the examination.

D. REYNELL,

Secretary, Public Service Commission (India).

Reports of Examiners for the Indian Civil Service Examination, 1936.

Essay.

'Those candidates who obtained 70 per cent, or more of the maximum mark?' submitted first class papers, well thought out, logically arranged; and carefully written. Those who get between 40 and 60 per cent, represent the type of candidate who would be given a 'pass' in a non-competitive examination. But as many as 60 per cent, of the candidates are quite unfit to appear for an advanced competitive examination. In many cases their standard of attainment was so low that it was difficult to give their work any value. Candidates of this type have no idea how a question should be tackled. Many of them answer a question of their own invention; whilst others write rambling essays combining bad English with an absence of logical order and sequence. The appearance of a mass of candidates of this kind, who present work of little or no value, seems to be a common feature in many public examinations.

English.

There was a large number of candidates whose mental equipment and powers of expression were utterly inadequate to meet the requirements of a paper of this standard. They showed complete ignorance of the general and literary background; they were unable to see the point of the question and displayed a ludicrous inability to write two consecutive sentences in anything approximating to correct English. Such gross errors as misuse of articles, sentences without verbs, lack of concord between subject and verb, inaccurate relative constructions, and misuse of idiom were common.

Others who displayed fair ability to understand and write simple English were still far below what might reasonably be expected of graduates. There was a general inability to get to the root of the matter and to discriminate between the more and the less important. Quantity rather than quality seemed to be the main consideration. The directions given in the questions counted for little.

The precis was generally badly done. The students who really digested the passage and gave its gist in an independent form, might be counted on one hand. The great majority slavishly followed the order and largely the wording of the original, omitting here and there.

There were a few, about a dozen, really good candidates who showed unusual ability in some of their answers, but none who displayed outstanding brilliance throughout.

General Knowledge.

The average standard is not high. Nearly half the candidates fail to come into the "good" class, i.e., 45 percent, or "above."

The failure has been due mainly to lack of knowledge. A large number of candidates have done well in two or three questions and badly in the remainder.

Everyday Science.

A very poor performance.

Far too many, when one takes into account that they hold a degree of a University, had no knowledge of the simple scientific principles underlying everyday phenomena. The great majority had no accurate knowledge and wrote nonsense. A few had some knowledge, but they were unable to apply it intelligently.

Vernacular Language—Burmese.

The standard of answers is moderate.

Vernacular Language—Bengali.

The general average is good.

Vernacular Language—Hindi.

Papers I and II showed want of practice among most of the candidates, but Paper III, where the candidates had full liberty to develop their theme and style, was done more satisfactorily. On the whole the candidates did fairly well.

Vernacular Language—Malayalam.

The work is on the whole good'

Vernacular Language—Telugu.

The general standard in all the three papers was moderate.

Vernacular Language—Tamil.

The work of the candidates is satisfactory.

Vernacular Language—Punjabi.

The results in all the three papers are satisfactory and the general standard of the answers is very good, though errors of spelling are common in the 2nd and 3rd papers, and the translations both from and into the Vernacular are too free in some cases.

In composition the candidates seem to have felt some difficulty in developing their ideas consistently and arranging them in logical order.

Vernacular Language—Urdu.

The general standard of the candidates in all the three papers is good.

Arabic Language.

Generally speaking, the candidates' knowledge of grammar is poor; they are consequently weak in translating both from and into English.

Arabic Civilisation.

The general standard is not very high.

Persian Language.

The standard was good for translation into English ; moderate for translation into Persian; and barely good for essay-writing in Persian. The

majority of the candidates *could not think in Persian*. Candidates offering Persian Language as an optional subject should realise that if they cannot think in Persian they may as well drop this subject altogether.

Persian Civilisation.

The result taken as a whole is good. Some of the candidates have shown a very good knowledge of the subject, but none showed any outstanding merit.

Sanskrit Language.

The general standard is moderately good.

Sanskrit Civilisation.

The general standard is moderately good.

Vernacular Literature—Hindi.

Answers on the whole are very good.

Vernacular Literature—Urdu.

The general defect is verbosity, vagueness and lack of concreteness. Few have taken an independent line, and most of the candidates have repeated arguments from text-books, and even in the matter of quoting the poets have shown little personal choice.

English Literature—General.

There were three principal faults in the answers:—

- (1) Candidates neglected to read the questions carefully and to answer the questions asked.
- (2) Candidates relied too much upon memory work, confining themselves to one single authority and one single line of treatment.
- (3) Candidates adopted the biographical method in their answers obviously following a text-book closely.

It would appear that they had acquired a certain store of knowledge but had not assimilated it thoroughly. They could repeat what they had read, but could not generalize upon it.

English Literature, Period 1.

In general the work done was gratifying, though answers to question one, the compulsory question, were somewhat disappointing. Apparently candidates have difficulty in managing an answer which cannot easily be dealt with by a quick reshuffling of text-book knowledge.

English Literature, Period 3.

On the whole, the papers were disappointing, and the average candidate was below the standard expected from students who must be supposed to have specialised in English Literature. More than fifty per cent, had no

business to take such a subject as Optional Krglifth Literature. There are far too many candidates who have no idea either of the high standard of work necessary to secure a place in the examination, or of their own complete inadequacy.

A good many of the candidates are bad examinees, and do themselves less justice than their knowledge warrants.

- J. Many candidates obviously write up to the last minute, thereby leaving themselves no time to read over what they have written. As a consequence the average paper contains numerous little slips in spelling, grammar and even idiom, many of which could probably be removed by careful re-reading during the last fifteen minutes.
2. Many fail to do themselves justice by not studying with sufficient care exactly what a question demands.
3. Many display a particular lack of proportion in their answers to the compulsory annotation question. They seem unable to worthy the clock and to do a little simple arithmetic. There were candidates who wrote as much as two pages on a single annotation which carried only five marks, and then at the end of the paper found themselves only with time to write less than two pages on a question carrying a maximum of 20 marks.

Indian History, Period 1.

Some candidates displayed a very thorough grasp of the scope and meaning of questions.

Many have attempted to create an artificial appearance of learnedness for their answers. A less pretentious method would have enhanced the real value of the answers. Ordinary correctness in the use of idioms and consistency in the use of tenses ; a regard for indicating the quotation-character of phrases and sentences of other writers embodied in the answers; greater attention to the structure of sentences and separation of the matter into sequential paragraphs and, above all, the avoidance of preliminary observations and undue, and in the most cases trite, generalisations will effectively improve the quality and value of the answers. The tendency to spin out thin matter is observable when answers are attempted for questions beyond the comprehension or range of preparation of the candidates.

Accuracy is largely wanting in the location of sites and boundaries required in the map question; and a sense of proportion of distances between places requires to be cultivated.

Indian History, Period 2.

The average is good.

Indian History, Period 3.

Few revealed more knowledge of the subject than is to be gathered from one or two standard text-books. The type of answer showed a monotonous uniformity of facts, arrangements and conclusions. There was little evidence of the exercise of personal judgment. Most candidates appear to have learned their " judgments " by rote.

Few candidates attempted the map question with reasonable success.

Modern European History, Period 1.

The general standard is fair.

Modern European History, Period 2.

Not a single answer suggested that any original authority had been consulted, and only one or two that such works of reference as the Cambridge Modern History had been used.

Most of the candidates appeared to have limited their reading to a single text-book of some two or three hundred pages.

The compulsory map question showed the usual ignorance of historical geography among most candidates.

British History, Period 1.

Answers were generally planned and accurate; but a tendency to over-elaboration was noted.

British History, Period 2.

The general standard of answers was good, though not far above moderate. On the whole the style was better than the subject matter; many candidates, while writing good English, had obviously not studied their period very deeply and were inclined to be redundant in expression and lacking in ideas. Economic history had been sadly ignored, to judge from the surprising lack of knowledge displayed by candidates of English rural life in the eighteenth century. But most candidates seemed to have an adequate knowledge of eighteenth century politics and on the whole handled their material well, though unimaginatively.

British History, Period 3.

The papers as a whole show few attempts at intelligent answers, the candidates apparently aiming at fitting as much "crammed" knowledge as possible into the framework of their answers. The general standard of English composition and spelling is low.

General Economics.

The work of the candidates may be considered moderately good. A few scripts were particularly good and a fairly large number definitely bad.

Economic History.

With the exception of a few, most of the candidates have shown good preparation and attempted the questions on the whole with good results. However, there is room for improvement in presentation and arrangement of answers even in the case of those who have creditably attempted the six questions required of them.

Public Economics.

The general standard was moderately good.

A few candidates, had they not given a disproportionate amount of time to some questions, would have done remarkably well.

Political Theory.

Some candidates have committed bad mistakes in spelling and grammar. Most of the candidates seem to be familiar with standard works on the subject, like Laski's *Grammar of Politics* and Barker's *Greek Political Theory*, but have taken no notice of other books equally important in the field.

Political Organization.

The answers are on the whole of a good standard. Most of the candidates, however, confine themselves to text-books, with the result that they are not familiar with some of the recent developments in political organization.

Law.

Most of the candidates were very lacking in the orderly arrangement of ideas or facts, and in the expression of an argument; a few candidates obviously knew little or nothing about the subject.

Moral Philosophy.

While no candidate can be said to be of outstanding merit, three of them are distinctly very good.

The general standard is good.

Metaphysics.

The general standard is fair.

Logic.

The general standard is very good.

Indian Philosophy.

The general standard is good.

Lower Mathematics, Paper I.

No candidate attempted the question on Geometrical Drawing. The work except in a few cases, was not up to the mark. There were candidates who were extremely weak in the subject.

Lower Mathematics, Paper II.

The quality of the answers was moderately good.

Higher Mathematics (Pure).

The general standard was moderate.

Higher Mathematics (Applied).

The general standard of answers was moderately good. The standard of answers to questions in Dynamics was rather poor.

Lower Chemistry, Paper I.

The average is good.

Lower Chemistry, Paper II.

The general level of the work is good. The arithmetical question has been well done. A certain weakness has been shown in dealing with question 5 in which practical details were specifically required.

Higher Chemistry Paper I.

The general standard is good.

Higher Chemistry, Paper II.

The general standard was moderate. Some papers had good answers to certain questions, but there was no paper in which all the answers reached a high standard. The question on the use of reducing agents, which was set to test the practical knowledge of the candidates, was attempted by few, and well answered by none. The compulsory questions, which required something more than a knowledge of book-work for satisfactory treatment, were very badly done.

Lower Physics.

The usual defect of the students is that they cannot express themselves properly and to the point.

Higher Physics.

The general standard is moderately good.

Lower Botany.

On the whole very good.

Lower Zoology.

The general standard is fairly satisfactory. There is an unfortunate tendency to include in the answers information extraneous to the real subject, and many of the answers are, as a result, much too lengthy. Very few of the answers appear to have been revised by the candidates. The illustrations are generally satisfactory.

Statistics.

The general performance is altogether unsatisfactory. The candidates do not show understanding of even the fundamental ideas of the subject.

Psychology.

There are some candidates who have only the most elementary and inaccurate knowledge of the elements of the subject, but some showed a real grasp of psychological problems.

Social Anthropology.

The knowledge seemed to be acquired wholly from text-books and lectures. Most of the candidates are hopeless, diffuse and repetitive, and attempt to conceal their ignorance with a flux of words.

Extra Nwnerwn (British History).

It looks as if a number of candidates had taken it in the hope of scoring marks on general reading. The result in a ntfluber of cases has been disastrous.]

Extra Numerum (Geography).

Many of the students do not seem to pay proper attention to the general principles of Geography. They try to study the subject on old-fashioned Jines. Map work is very weak. Attempt should L»e made to illustiate answers by maps and diagrams. This is very essential.

