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**PUBLIC SERVICE COMMISSION
(INDIA)**

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

HELD IN INDIA AND BURMA

IN

JANUARY 1937.

**RULES, SYLLABUS, QUESTION PAPERS, TABLE
OF RESULTS AND REVIEW OF THE
EXAMINATION.**



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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 Coorg, 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

(b) 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 9G-A 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 of 21 and must not have attained the age of 24 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

¹ These regulations are liable to be altered for subsequent examinations.

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 decree 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 three 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 fees :—

A—To the Public Service Commission—

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

(ii) if accepted for admission to the examination Rs. 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	180	5. Vernacular Language	100
3. General Knowledge	100	6. Viva Voce	300

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. Asiatic 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.

1 (See rule (17) below.

History, Economics, Politics, Law and Philosophy.

	Marks.		Marks.
22. Indian History, Period 1 . . .	100	30. General Economics . . .	200
23. Indian History, Period 2 . . .	100	31. Economic History . . .	100
24. Indian History, Period 3 . . .	100	32. Public Economics . . .	100
26. 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 . . .	200
45. Lower Physics . . .	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 0.—Extranumerum 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 B 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 examination to be held in 1937, candidates will be allowed to offer French, German, or Italian in substitution for Vernacular Language.

(16) 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 carrying 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 54) must produce a certificate that subsequent to the passing of the Intermediate or an equivalent examination they have undergone laboratory training for

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, 55) 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. The Governor General in Council may, however, at any time prior to the commencement of the period of probation, institute, or cause to be instituted, such further enquiries as he may deem necessary as to the qualifications of any candidate in respect of nationality, age, health, character or conduct, and if the result of such enquiries is in the opinion of the Governor General in Council unsatisfactory in any of those respects, the candidate may be declared disqualified. 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 one year in the United Kingdom.

Special Rules 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.

^t 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 1937 will represent the total number of vacancies to be filled.

£ N? candidate who obtains less than 750 marks shall be deemed to have qualified by examination.

(Hi) Burman candidates who are declared successful at the competitive examination will receive appointment in the Burma Civil Service (Class I), which under the terms of Section 101 (1) of the Government of Burma Act, 1935, will replace the Indian Civil Service in Burma from the date of separation of Burma from India.

(iv) 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 (o) (i) and (3) (ii) shall not apply to Burman candidates.

(v) 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.

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

The Mysore University.

The Osnania University.

English and Welsh Universities.

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

Scotch Universities.

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

Irish Universities.

The University of Dublin (Trinity College).

The Queen's University of Belfast.

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 Vedic 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 Devanagari 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 Buddhistic 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, Bunyan.

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, Carlyle, 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—Periods.*—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 their 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 causality, 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*.—This 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 Vedānta, 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 coefficients, 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*.

52. *Higher Physiology*.

53. *Lower Zoology*.

54. *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 may be 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, nebulae, 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, percentages, the standard deviation, significance of observed differences between averages of groups, etc., the theory of correlation for two variables.

58' *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 museum 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.

EXTRANUMERUM.

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.

3. Regulations for the medical examination of candidates for appointment to the service of Government in India.

[Save as provided in regulation 2 (b) these Regulations are intended merely for the guidance of Medical Examiners and are not meant to restrict their discretion in any way.]

1. To be passed as fit for an appointment under Government in India 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 his appointment.

2. (a) The following table of correlation of age, height and chest girth is to be used as a guide in the examination of candidates of European race. It is not applicable to candidates of Indian or mixed race :—

Physical Equivalents.

Age last birthday.	Height without shoes.	Girth when fully expended.	Chest Range of expansion not less than.
		Inches.	Inches.
16	60 and under 62 inches	32½	2
	62 „ 65 „	33½	2
	65 „ 68 „	33½	2
	68 „ 72 „	34	2
	72 and upwards	34½	2
17	62 and under 65 inches	33½	2
	65 „ 68 „	34	2
	68 „ 72 „	34½	2
	72 and upwards	35	2
18	62 and under 65 inches	34	2
	65 „ 68 „	34½	2
	68 „ 72 „	35	2
	72 and upwards	35½	2
19	62½ and under 65 inches	34½	2
	65 „ 68 „	34½	2
	68 „ 70 „	35	2
	70 „ 72 „	35½	2
	72 and upwards	36	2
20	62½ and under 65 inches	34½	2
	65 „ 68 „	34½	2
	68 „ 70 „	35	2
	70 „ 72 „	35½	2

Physical Equivalents—contd.

Ago laat birthday.	Height without shoes.	Girth when fully expended.	Chest Bang' of expansion not ICSB than.
		Inches.	Inches.
20— <i>contd.</i>	72 and upwards	36	2
21 and upwards	024 and under 05 inches	844	2
	65 „ 68	35	2
	68 „ 70	864	2
	70 „ 70	36	2
	72 and upwards , ...	36i	2

2. (b) For candidates for appointment to the Indian Police a minimum height of 5' 4" and a minimum chest measurement of 33" (girth when fully expanded, with a minimum expansion of 2") are required. These minima are absolute and no medical officer or Board has power to waive them.

3. The candidate's height will be measured as follows :—He will remove his shoes and be placed against the standard with his feet together, and the weight thrown on the heels and not on the toes or outer side of the feet. He will stand erect without rigidity, and with the heel, calves, buttocks and shoulders touching the standard ; the chin will be depressed to bring the vertex of the head level under the horizontal bar, and the height will be recorded in inches and parts of an inch to quarters.

4. The candidate's chest will be measured as follows :—He will be made to stand erect with his feet together, and to raise his arms over his head. The tape will be so adjusted round the chest that its upper edge touches the inferior angles of the shoulder blades behind, and its lower edge the upper part of the nipples in front. The arms will then be lowered to hang loosely by the side and care be taken that the shoulders are not thrown upwards or backwards so as to displace the tape. The candidate will then be directed to take a deep inspiration several times, and the maximum expansion of the chest will be carefully noted.

The minimum and maximum will then be recorded in inches, 33—35, 34—36J, etc.

In recording the measurements, fractions of less than i inch should not be noted.

5. The candidate will also be weighed, and his weight recorded in pounds. Fractions of a pound should not be noted.

6. *Note.*—Special rules apply to Railway Servants, Pilots, Royal Indian Marine.

(A) The examination for determining the acuteness of vision includes two tests, one for distant, the other for near, vision. Snellen's test types will be used for the test for distant vision, without glasses at a distance of 20 feet, and for the test for near vision without glasses, at any distance selected by the candidate. The standards of the minimum acuteness of vision which will be used for guidance in the examination of a candidate are as follows :—

STANDARD I.

Right eye.

Distant vision—V=6/6.

Near vision—Reads 0, 0.

Left eye.

V-6/6.

Reads 0, 6.

STANDARD II.

Better eye.	Worse eye.
Distant vision—V—6/G.	V, without glasses—not below 6/60 ; and after correction with glasses—not below 0/24.
Near vision—Reads 0, 6.	Reads 1.

STANDARD IIT.

Better eye.	Worse eye.
Distant vision—V, without glasses—not below 6/24', and after correction with glasses—not below 0/6.	V, without glasses—not below 6/24' and after correction with glasses—not below 6/12.
Near vision—Reads 0, 8.	• Roads 1.

(B) Each eye must have a full field of vision as tested by hand movements.

(c) Squint or any morbid condition of the eyes or of the lids of either eye liable to the risk of aggravation or recurrence, will cause the rejection of the candidate.

(O) Each eye will be examined, separately and the lids must be kept wide open during the test.

(E) Inability to distinguish the principal colours will not be regarded as cause for rejection but the fact will be noted in the proceedings and the candidate will be informed.

(F) The degree of acuteness of vision of all candidates for appointments will be entered in the proceedings in the following manner :—

V. R.....; with glasses—.....; "Reads.....

V. L.....; with glasses:--.....; Reads.....

(c) In cases of serious abnormality the opinion of an ophthalmic specialist should be obtained.

7. The urine (passed in presence of the Examiner) should be examined and the result recorded.

8. The following additional points should be observed :•••-

(a) that the candidate's hearing in each ear is good and that there is no sign of disease of the ear ;

(6) that his speech is without impediment ;

(c) that his teeth are in good, order and that he is provided with dentures where necessary for effective mastication (well filled teeth will be considered as sound);

(d) that his chest is well formed and his chest expansion sufficient, and that his heart and lungs are sound ;

(c) that there is no evidence of any abdominal disease ;

(/) that he is not ruptured ;

(y) that he does not suffer from hydrocele, a severe degree of varicocele, varicose veins or piles ;

(/) that his limbs, hands and feet are well formed and developed and that there is free and perfect motion of all his joints ;

(1) that he does not suffer from any inveterate skin disease ;

(j) that there is no congenital malformation or defect;

(k) that he does not bear traces of acute or chronic disease pointing to an impaired constitution ;

(I) that he bears marks of efficient vaccination.

When any defect is found it must be noted in the certificate and the medical examiner should state his opinion whether or not it is likely to interfere with the efficient performance of the duties which will be required of the candidate. If the condition is remediable by operation it should be so stated.

Day,	Hour.	Subject.
Saturday, 9th January— <i>Contd.</i>	1-30 P.M. to 4-30 P.M.	Lower Physics, Paper I. Arabic Civilization, Paper 1. Pali Civilization, Paper I. Higher Zoology, Paper I. Advanced Geography, Paper I.
Monday, 11th January	9-30 A.M. to 12-40 P.M.	Astronomy. Indian History, Period 2. Higher Physiology, Paper II. Physical Anthropology.
	1-30 P.M. to 4-30 P.M.	Lower Physics, Paper II. Arabic Civilization, Paper II. Pali Civilization, Paper II.
Tuesday, 12th January	9-30 A.M. to 12-30 P.M.	Higher Mathematics (Applied), Paper I.
	1-30 P.M. to 4-30 P.M.	General Economics, Paper 1. Lower Zoology, Paper I.
Wednesday, 13th 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 4-30 P.M.	General Economics, Paper II. Lower Zoology, Paper II. Indian Philosophy.
Thursday, 14th 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.
	12-30 A.M. to 12-30 P.M.	Lower Physiology, Paper I. Higher Physics, Paper I. Public Economics.
	2-00 P.M. to 5-00 P.M.	Lower Geology, Paper II. Lower Physiology, Paper II. Higher Physics, Paper II. Logic.
Friday, 15th January	9-30 A.M. to 11-30 A.M.	Arabic Language, Paper III. Sanskrit Language, Paper III.

Day.	Hour.	Subject.
Friday, 16th January— <i>contd.</i>	9-30 A.M. to 12-30 P.M.	Lower Botany, Paper I.
	1-30 P.M. to 4-30 P.M.	Lower Botany, Paper II.
		English Literature (General), Paper I.
Saturday, 16th January . .	9-30 A.M. to 12-30 P.M.	Higher Mathematics (Pure), Paper I.
		Higher Botany, Paper I.
		Political Theory.
	1-30 P.M. to 4-30 P.M.	English Literature (General), Paper II.
		Higher Botany, Paper II.
Monday, 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 IT.
	9-30 A.M. to 12-30 P.M.	Higher Chemistry, Paper I.
Tuesday, 19th January . .	9-30 A.M. to 12-30 P.M.	British History, Period 1.
Wednesday, 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.
Thursday, 21st January . .	9-30 A.M. to 12-30 P.M.	Lower Chemistry, Paper I,
		Metaphysics.
	1-30 P.M. to 4-30 P.M.	Vernacular Literature.
Friday, 22nd January . .	9-30 A.M. to 12-30 P.M.	Psychology.
		Lower Chemistry, Paper II.
	1-30 P.M. to 4-30 P.M.	Lower Mathematics, Paper I.
		English Literature, Period 2.
Saturday, 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.
		Higher zoology, Paper II.
Monday, 25th 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.

Day.	Hour.	Subject.
Tuesday, 26th January . .	9-30 A.M. to 12-30 P.M. 1-30 P.M. to 4-30 P.M.	Law, Paper II. Political Organization.
Wednesday, 27th January . .	9-30 A.M. to 12-30 P.M. 1-30 P.M. to 4-30 P.M.	British History, Peri Economic History'
Thursday, 28th January . .	9-30 A.M. to 12-30 P.M. 1-30 P.M. to 4-30 P.M.	Sanskrit Civilisation, Paper I. Persian Civilisation, Paper I. Sanskrit Civilisation, Paper II.
Friday, 29th January . .	9-30 A.M. to 12-30 P.M. 1-30 P.M. to 4-30 P.M.	Persian Civilisation, Paper II. Indian History, Period 3, Higher Mathematics (Pure), Paper II.
Saturday, 30th January . .	9-30 A.M. to 12-30 P.M.	Moral Philosophy. Indian History, Period 1.

5.-QUESTION PAPERS.

(ESSAY.)

Time allowed—Three Hours.

Maximum marks—150.

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

(a) 'A gallant but unstable refusal to recognize the gulf between the vision and the actual limits of achievement is characteristic of many, otherwise laudable, social, political and religious idealists/

(6) Stern Daughter of the Voice of God !

O Duty ! if that name thou love

Who art a light to guide, a rod

To check the erring, and reprove ;

Thou, who art victory and law

When empty terrors overawe ;

From vain temptations dust set free ;

And calm'st the weary strife of frail humanity !

Stern Lawgiver !...

Thou dost preserve the stars from wrong ;

And the most ancient heavens, through Thee, are

Fresh and strong

To humbler functions, awful Power !

I call thee. ...

The confidence of reason give ;

And in the light of truth thy Bondman let me live !

(c) 'All things are lawful for me, but all things are not expedient: all things are lawful for me, but I will not be brought under the power of any/

(d) Can Village Industries ever again substantially contribute to the solution of economic difficulties and social problems in India ?

(e) Romanticism in Art and Life.

(f) The Ethics of Punishment.

(g) The 'Totalitarian State.'

ENGLISH.

Time allowed—Three 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 passage in about one-third of its length :—

Nobody, it is to be hoped, can raise any objection to a republication of Boswell's *Johnson*, but there may be people who will raise an objection to a selection from it. Upon the whole the more cultivated people of the modern world have a tendency to protest against the practice of selecting from such masterpieces, and the phrases 'mangling', 'truncating', 'topping', and

"torturing", are phrases, I imagine, which are kept set up in type in most news paper offices. But how many people—I am not speaking now of professional literary men or the critics—how many of the ordinary, every day people have read Boswell's *Johnson* in its entirety? It is a very bulky book—or series of books. Its very bulk, I venture to say, frightens many away from the attempt to read it: nay, it forbids them even to possess it. Here, at any rate, is some thing they *can* read. It is not all of Boswell, certainly; but it is the best of him and much more than any man, having read, can remember. That for certain purposes, and those perhaps the largest, a complete text of any document is preferable, will not be disputed; but if it be maintained that no statement or narrative is of any value if it be fragmentary and selective, the consequences are interesting and somewhat alarming. For it is overwhelmingly probable that almost all the documents upon which we base our belief in the existence of Jesus Christ or Socrates have been mangled and edited again and again. The art of selection has not been invented by modern editors. It is a process which goes on by inevitable operation in all historic things. Every great philosophy, every great religion is founded not upon a diary, but upon a scrap-book. If the world of the future knows nothing more of Boswell's *Johnson* than a selection of some of the most admirable passages, it will be knowing as much (and possibly a little more) than most of us know about the Greek philosophers, or the incomparable wit and wisdom of the medieval schoolmen. The act of making selections from a writer is simply the crown which awaits his fame; it is the proof of his immortality. If it is really useless for us to judge of anything in samples (and so the most artistic critics tell us) then, certainly, we are all in a most difficult position. There is that interesting object, the earth, for instance; we cannot see it in its entirety, except by going to the moon, and then somewhat obscurely; we see as much of it as we can get hold of. The universe itself cannot show us its unity; we have to judge of it in selections. If there is really no justification for dipping into a book, as is the habit of some of us, it seems really doubtful whether there is any justification for dipping into existence, as we all of us do. Whenever, or wherever we are born, we are coming into the middle of something; at whatever time we first begin to take notice, we are reading the last chapter of some story first. Once establish the proposition that good things are useless if they are fragmentary, and all our lives, religion, principles, politics, and habits, become useless indeed. For, whether they are good or bad, they are still fragmentary. I can therefore scarcely admit that a good thing is not good, even in a small quantity; I am prepared to maintain that if one cannot have too much of a good thing one cannot have too little.

40

2. Do not paraphrase the following poem, but give, in *four or five* sentences, your idea of the poet's meaning. Add some remarks on the structure and prosody of the poem, and suggest a title.

Staggering slowly, and swaying
 Heavily at each slow foot's lift and draught,
 With tense eyes careless of the roar and throng,
 That under jut and jag
 Of half-built wall and scaffold streams along,
 Six bowed men straining strong
 Bear, hardly lifted, a huge lintel stone.
 This ignorant thing? and prone,
 Mere dumbness, blindly weighing,
 A brute piece of blank death, a bone
 Of the stark mountain, helpless and inert,
 Yet draws each sinew till the hot veins swell
 And sweat-drops upon hand and forehead start,
 Till with short pants the suffering heart
 Throbs to the throat, where fiercely hurt
 Crushed shoulders cannot heave; till thought and sense
 Are nerved and narrowed to one aim intense,
 One effort scarce to be supported longer!
 What tyrant will in man or God were stronger

To summon, thrall and seize
 The exaction of life's uttermost resource
 That from the down-weighed breast and aching knees
 To arms lifted in pain
 And hands that grapple and strain
 Upsurges, thrusting desperate to repel
 The pressure and the force
 Of this, which neither feels, nor hears, nor sees ?

30

3. Either, Discuss and criticize Mr. Chesterton's arguments in favour of Selections' as given in Question 1.

Or, Write OP—The District Officer's Duties towards Farmers.

30

4. Compare and contrast the methods of the drama, the novel, and the cinema in the treatment of a story.

30

5. Answer any two of the following sections (a), (b), and (c) :—

(a) Explain the meaning of the following expressions, and account for their origin if you can :—*white feather* ; *yellow streak* ; *silver lining* ; *small beer* ; *teetotaller* ; *blarney*.

(b) Distinguish between the meanings of the following words in each pair by writing a short sentence illustrative of the correct use of each word :—*pose, poise*; *allusion, illusion* ; *place, keep* (as verbs) ; *historical, hysterical*; *Euphuism, euphemism*.

(c) Explain the following terms, with examples ;—*liMe'*, *onomatopoeia*; *ovymoron*, *alliteration*, *clicht*, *hyperbole*.

30

GENERAL KNOWLEDGE,

Time allowed— Two hours.

Maximum marks—100.

five questions only to be attempted. At least two must be chosen from Part I, and at least two from Part II,

All the questions carry equal marks.

PART I.

1. What is meant by the words 'Scheduled Castes' ?

Indicate, in general terms, the special provisions which have been made for the Scheduled Castes in the new constitution for India.

2. Give a short account of the causes, course, and results of the Italian-Abyssinian War, 1935-6.

3. Write a short account of the system by which the President of the United States is elected.

4. Why have the following been prominent recently :—Father Coughlin, Baron Aloisi, Dr. Eckener, M. Leon Blum ?

5. Comment on the following remark :—'The Indian Famine Code is the best example of unemployment machinery in the world/

6. In his Indian Financial Enquiry Report Sir Otto Niemeyer wrote :—

'I believe that both the early establishment of effective co-ordination between the various modes of transport and the thorough-going overhaul of Railway Expenditure in itself are vital elements in the whole Provincial problem/

Give your views on the above extract, and your suggestions on the co-ordination of rail, river, and motor transport.

PAKT II.

- ^x 7. Argue the case, for and against, universal suffrage in India.
8. What, in your opinion, are the fundamental causes underlying the development of Hitlerism and Fascism ?
9. Write explanatory notes on :—the British Academy, the Koyal Academy, the French Academy, Lords of Appeal, Lords of the Treasury, Lords-Lieutenant.
10. Write one paragraph on any *two* of the following, indicating recent important developments :—(a) television, (b) social credit, (c) stratosphere flight.
11. What are the causes of the fall in the rates of interest in recent years ?
12. What are the chief centres of the various manufacturing industries in India, and why have these been chosen ?

EVERYDAY SCIENCE.

Time allowed—2 hours,

Maximum marks—100.

Candidates should attempt *not more than five* questions.

All the questions carry equal marks.

1. Discuss the value of the following in the human diet :—bread, water, sugar, meat, milk, alcohol, oranges, cabbage, lettuce.

Why are appendicitis and diabetes sometimes called 'rich men's diseases' ?

2. Describe briefly the external features of as many types of aircraft as you know. Very simple diagrams will enhance the value of your answer.

3. What is a manure ? Make an attempt to classify manures and give a general idea of how leaf-mould, activated sludge, and any one mineral manure are prepared for the market.

4. Upon what principles does the engine (petrol) of a motor-car operate ? What is the usual diagnosis when—

- (a) blue 'smoke'¹ issues from the exhaust,
- (b) black 'smoke' issues from the exhaust,
- (c) there are explosions in the silencer ?

5. What are the principal trees grown freely in India which yield—

- (a) the most useful woods (say for what purpose they are used, and why) ;
- (b) food? ;
- (c) commodities, other than food or wood ?

6. Write an essay on the recent development of pure scientific (laboratory) method in the examination of exhibits for the detection of crime.

7. In what ways is electricity generated in large quantities for commercial purposes ?

How is it applied to various forms of heating, lighting, and manufacture ?

8. Write notes on the sources and uses of the following textile fibres :— artificial silk, coir, cotton, flax, hemp, jute, ramie, silk,

9. Compare and contrast :—

(a) Culture pearls and artificial pearls.

(b) Moths and butterflies.

(c) Toads and frogs.

(d) Solar and lunar eclipses.

10. Write a critical note on the development and claims for protection of the paper industry in India. _____

VERNACULAR LANGUAGE—TRANSLATION.

PAPER F.

• Not reproduced.

NOTE.—A limited number of copies of papers on the different languages are stocked by the Federal Public Service Commission for supply to candidates at a charge of four annas each. No requisition for copies of these papers will be complied with unless it is accompanied by a Treasury Receipt for the cost of these papers. The amount should be deposited in a Government Treasury, or in a branch of the Imperial Bank of India, or in a State Treasury authorised to transact business on behalf of Government. Amount deposited at Bombay, Calcutta, Delhi, Madras and Rangoon should be deposited in the Reserve Bank of India instead of in the Imperial Bank of India. The Treasury or Bank should be asked to credit it to Government under the account head "XXXVI.--Miscellaneous Departments—Receipts of the Federal Public Service Commission".

VERNACULAR LANGUAGE.

PAPER g.

Time allowed—1 $\frac{1}{3}$ hours.

Maximum marks—30.

(Translate the following 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.)

But although that pleasure is the deepest that science can give to many people, it is not the only one ; and there are some, profoundly moved by science, in whom it scarcely exists at all. It is these whom the scientific educators of the nineteenth century (men of simple and practical minds, oddly like the scientific apologists in Russia to-day) particularly neglected. Instead of being excited by the prospect of controlling the external world they remain unmoved ; in fact, their delight in science is not its power over the world of matter, but what it can tell them of the ' reality ' beneath it. This ' reality ' may be unphilosophical ; the starker materialist definition of science may be more tenable in thought, as well as more useful in action ; the pleasure in the abstract for its own sake is assailed both from the extreme materialist and extreme idealist sides ; but it exists, it is merely blindness to deny it. The retired colonels who amuse themselves with the mysterious properties of numbers are moved neither by a desire to alter their material environment nor by a religious intimation ; my young German lawyer indulged his passion for the theory of relativity, not for a practical end, however remote, but simply because he enjoyed it, because the atmosphere of these ideas gave him a satisfaction that his intellect could find in no other place. And his pleasure is shared by many ; that is why, of course, Sir James Jeans sells his tens of thousands. If we do not approve of his presentation—and there are a good many reasons why we should not—it

rests with us to provide a pleasure after the same pattern. People who are longing for ideas, who want to hear about the Uncertainty Principle and what the Quantum Theory means, are not to be satisfied with an account of the latest kind of unbreakable glass. Somehow we have to cope with the appetite for the abstract. There are all sorts of dangers ; but, if the task is done with honesty and clear-sightedness, that eagerness to follow, even without fully understanding, wherever the intellect may lead, is one of the more hopeful things in the world.

Even without fully understanding—perhaps of all the dangers, that phrase is the most acute. For, unfortunately, it seems that this pleasure in the abstract cannot only rest content without complete understanding—it tends to be greatest where there is a maximum of haze. If the first pleasure reduced to its lowest terms was a love of power, then this is the delight of losing oneself in the warm, nostalgic fog of mystery (although I believe there are other components, sterner and more valuable). It is seen most commonly in those scientific fields where the untrained listener must of necessity be in a state of comfortable bewilderment: relativity is an example where the pleasure comes not only from trying to understand, but also from the feeling that there is something beyond understanding. And so with the astronomical ideas, the expanding and finite universes, the quantum mechanical atom ; people without a scientific training revel in these abstractions, half because of a genuine intellectual curiosity, and half because of the feeling that here at last, in a shallow and obvious world, is something that will never lose all its mystery. It is not easy to tell them that they have no right to this feeling : that they are stopping half-way and denying science its fulfilment, even while they are enjoying it. It is not easy, and if it will kill their enjoyment it should not be done. For, while they are tasting this pleasure, there is the chance that they will go a little further and secure one that lies deeper ; they may, sometimes they do, realize that by going beyond the comfortable mystery they might come to a lucidity which is the aim of science and, in the moments one possesses it, the highest enjoyment it can give.

VERNACULAR LANGUAGE.

PAPER 3.

Time allowed—1½ hours.

Maximum marks—40.

(Write an essay on *one* of the following 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) Asoka.
- (b) Akbar.
- (c) Napoleon.
- (d) The Monsoon.
- (e) Competitive Examinations.
- (f) Aviation.
- (g) Unemployment.
- (h) Mountaineering.
- (i) Indian games.

FRENCH,

PAPER 1.

Time allowed—1½ hour'.

Maximum Marks—30.

Translate into English :—

Le diplome fondamental chez nous, c'est le baccalaureat. Il a conduit a orienter les etudes sur un programme strictement defini et en consideration d'epreuves qui, avant tout, representent, pour lesexamineurs, les profcsseurs et les patients, une perte totale, radicale et non compensee do teraps et de tra=vail. jour oil vous creez un diplme, un contrdle bien defini, vous voyez aussitot s'organiser en regard tout un dispositif non moms precis que votre programme, qui a pour but unique de conquerir oe diplome par tous moyens. Le but de l'enseignement n'etant plus la formation de l'esprit, mais l'acquisition, du diptome, c'est le minimum exigible qui devient Fobjet des etudes. Il ne a'agit plus d'apprendre le latin, ou le grec, ou la geo.rierie. Il s'agit d'emprunter et non plus d'acquérir, d'emprunter ce qu'il faut pour passer le oaccalaureat.

Ce n'est pas tout. Le diplme donne a la societe un lantome de garantie, et aux diplomas des fantomes de droits. Le diplome passe officiellement pour savoir : il garde toute sa vie ce brevet d'une science momentanee et purement expediente. D'autre part, ce diptome, au nom de la loi, est porte a croire qu'on lui doit quelque chose. Jamais convention plus nefaste a tout le monde, ii at et aux individus (ct, en particulier, la culture) n'a ete instituee. C'est en consideration du diplome, par exemple, que Von a vu se substituer la lecture des auteurs Tusage des resumes, des marmels, des coniprimes de science extravagants, les recueils de questions et de reponses toutea faites, extraits et autres abominations. Il en rEsulte que phis rien dans cette culture adulteree ne peut aider ni convenir a la vie d'un esprit qui se developpe.

FRENCH.

PAPER 2.

Time allowed—1 hours.

Maximum marks—30.

Translate into French :—

Harvey Cheyne, the hero of 'Captains Courageous'.

By sheer good luck tins only son of an American multimillionaire falls into the sea. Ha is picked up by a schooner of Newfoundland fishermen. His father was too busy to bring him up. His mother never gave it a thought. Harvey was the centre of attraction. The wealth that he had not earned made up for his lack of intelligence, heart, and character. Without money, without games, without leisure, he could no longer lead a passive life, fancying that he was independent of anything or anybody. A few months of a healthy and rough life, where need and duty went together ; the sudden necessity of behaving like a man, and his bread won by himself, changed Harvey altogether. In the spoilt child, about to become a young waster, submission to the law of man, forced at first, soon accepted with pride, brings out the traits of his father, a

hard worker, able to control many others because he controlled himself. Is this the story of a boy's life? It is but our **own**.

FRENCH.

PAPER 3.

Time allowed—1½ hours.

Maximum marks—40.

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

(a) Le sport actuel et le professionalisme.

(e) Le mouvement Scoutiste et son influence sur la sante du corps, la sante mentale et la sante spirituelle,

(c) La paix mondiale.

(d) Ecrivez une lettre a un de vos amis lui donnant votre impression des deux epreuves de français que vous venez de subir.

GERMAN.

PAPER 1.

Time allowed—1½ hours.

Maximum marks—45.

Translate into English :—

Der Tanz offenbart uns zunächst eine *Einheit von Gestalt und Gestaltung* wie in fast keiner andern Kunst oder sonstigen menschlichen Haltung. Es gibt Künste, in denen der Schöpfer notwendig seinem Werke abgegrenzt gegenüberstehen muss, sobald das Kunstwerk zur Vollendung geboren ist (Malerei, Architektur). Andere Künste verlaugen das Wirken des Menschen für die Dauer der Existenz oder wenigstens der voll-lebendigen Existenz des Kunstwerkes. Dabei kann es sein, dass der Mensch wenigstens noch durch das "Instrument" objektgebunden bleibt, wie etwa in der Musik. Diese Bindung durch das Instrument ist ihm also in solchem Bereich noch mit der vorher gezeichneten Objektkunst gemeinsam. Es kann aber auch sein, dass der Mensch sein eigenes Organ als Instrument gebraucht (Gesang). Noch inniger ist die Einheit von Werk und Gestalt beim Schauspieler gegeben. Hier ist der Fremdbezug fast nur noch ein geistiger: Die Darstellung einer andern Person, eines Geschehens usw. Diese Fremdwelt muss er sich "zu eigen" machen, will er seinen Beruf erfüllen. Auch im Bewegungsspiel bleibt zumeist noch solcher geistiger Fremdbezug, wenngleich hier die innere Einheit um ein Bedeutendes vollkommener wird. Der Tänzer aber hat die Möglichkeit, nur sich selbst zu gestalten, die körperlich-geistigen Gesetzmäßigkeiten entweder (im Binzeltanz) seiner eigenen Person oder (im Paartanz, Eigen- und Gruppentanz jeder Art) der menschlichen Gemeinschaft überhöht darbietend. Durch diese im Wesen des Tanzes gelegene Selbstgestaltung ist die Möglichkeit einer Bindung mit darstellerischer Fremd pantomime natürlich nicht, ausgeschlossen. Soweit überhaupt der mimische Nachahmungstrieb den Tanz etwa primitiver Völker ursächlich bestimmt, handelt es sich oft um Nachahmung dessen, der man selbst bereits innerlich verbunden ist. Man will nicht so sehr Fremd **Fremd-**

machte darstellen, als vielmehr die im eigenen Innern erlebte Macht durch Naohahmungsmimik ehren oder bannen.

GERMAN.

PAPER 2.

Time allowed—1½ hours.

Maximum marks—45.

Translate into German :—

In the fields of Alsace in the heat of summer under the artillery fire of the French there lay a militia regiment of peasants from the Upper Palatinate. A month before they had no thought of death, or rather like many others of their age they saw ahead of them a long life of hard work : suddenly the call to arms summoned them to the army and hurled them on the threatened frontier.

Here they were, here in the ripe fields which belonged to other peasants they had dug themselves in. They learnt that war is something else than jolly, care-free playing at soldiers—if they did indeed ever fancy it thus—and that death with which war threatens, has little in common with the way of dying familiar to them : that in the shrill crash of shrapnel—heard by them for the first time, death crushed its victims before launching a hot shell into their body or face or arm or back or stomach ; that it played with them, made the neighbour who was as strong as a tree and who had just been joking, yell with pain like a child that if inflicted torture of which no living man had any proper notion.

For such a regiment, used no longer to military discipline, not much more than a well led crowd of armed peasants, who had little more of the soldier about them than a vague recollection of their easier military service, for such men this might have been the hour of panic, of senseless fright, when the rebellious will to live sets at defiance the order to hold on and breaks through all bonds of obedience'

When one of these peasants began to say his rosary aloud, and the whole line had shortly after joined in, not as on the parade ground, but exactly as in church, one decade after the other, in due order, one group changing with another to say the first part, exactly as old, holy usage requires, Death still crashed in their ranks ; but now he seemed no longer the same. He was not the lord of the hour but the servant of God in whose all merciful hands all these praying men had placed their fate.

GERMAN.

PAPER 3.

Time allowed—1½ hours.

Maximum marks—60.

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

- (a) Ledigensteuer' warum ?
- (b) Das Meiden von Verstiegenheiten, in die immer wieder das tiefbohrende deutsche und das radikal logische französische Denken

verfällt, ist ein auszeichnendes merkmal des gesunden Menschen' verstandes der Engländer, weist zugleich auf seine Versuge wie Grenzen bin.

- (c) Abendstimmung.
- (d) Die Neugestaltung Indiens.
- (e) Geist der Neuzeit.

ITALIAN.

PAPER 1.

Time allowed—1½ hours.

Maximum marks—45.

Translate into English :—

È curioso il fatto che i critici i quali più si lagnano del decadimento dell'Arte ai nostri giorni son poi quelli stessi che come critici non valgono la carta su cui scrivono. Ne si vuol dire che per l'Arte corrano tempi d'oro ; ma si vuol dire che come al reggimento i coscritti che più si lamentano del rancio, del letto e dei disagi sono quelli che a casa avevano meno agi, così in arte i critici più esigenti sono quelli che meno possono pretendere.

I più rinomati critici fecero accoglienze entusiastiche al primo romanzo di Alberto Moravia, " Gli Indifferenti ". Gli stessi critici hanno fatto il viso dell'armi al secondo romanzo dello stesso " Le Ambizioni sbagliate " e si sono domandati sgornenti come mai egli abbia potuto scrivere un romanzo così brutto dopo averne scritto uno così bello.

Fossibile che col tempo e l'esercizio Parte di uno scrittore ancora giovane abbia declinato così rapidamente da dar luogo a simili domande ? Probabilmente il nodo della questione è ben diverso. E forse è questo ; che nel primo romanzo Moravia ha dipinto degli uomini decaduti e li ha dipinti adoperando termini addirittura insoliti, per crudezza, nella nostra letteratura : qualche cosa, per intendersi, come se in una casa dove si è bevuto sempre camomilla ed orzata si cominciasse a bere grappa prima durante e dopo i pasti. Moravia non mostrava di avere alcun riguardo per le tradizioni di quella cosa che è la letteratura italiana, e le sue parole crude stavano in bocca ai nostri critici come le prime sigarette in bocca allo studente giovinetto.

Uscito il secondo romanzo i critici vi si sono precipitati : ed hanno trovato le stesse parole, la stessa gente del primo romanzo. Hanno perciò accusato il romanziere. Ma no, ma no. " Le Ambizioni sbagliate " non valgono ne più ne meno degli " Indifferenti ". Se fosse uscito prima quello e poi questo, i inedesimi critici avrebbero detto che questo era un regresso di fronte a quello. Perché Moravia dipinge l'umanità come se gli uomini fossero tutti falsi, tutti scemi, tutti bassi, tutti insomma di colore nero. Ora anche i critici sanno che gli uomini sono pure qualche altra cosa. Se essi fossero così tutti d'un pezzo e tutti d'un colore sarebbe facilissimo il commercio con gli uomini. Ma è difficile invece appunto perché essi sono neri o bianchi, rossi e verdi nello stesso tempo. Il puro delinquente, il delinquente al 100 per 100 non esiste come non esiste il buono integrale. Tanto Toro quanto il piombo hanno bisogno di una certa lega. Di libri che descrivono una umanità così fuori del reale se ne può leggere uno: dopo, se ne ha abbastanza. E si accusa il romanziere di esser tornato indietro mentre invece egli non ha fatto che rimanere allo stesso posto a guardare gli uomini con un occhio solo, mentre la natura ce ne ha dati due appunto per metterci in grado di vedere il bianco ed il nero nello stesso tempo.

ITALIAN.

PAPER 2.

Time allowed—1½ hours.

Maximum marks—45.

1. Translate into Italian —

Do you remember what was our favourite pastime at school .-> To beguile the ennui of lessons we would tear a page off the copy-book, let a drop of ink fall on it, fold the paper and squeeze it between the fingers. There resulted marvellous ramifications-shapes of unnatural trees, meandering rivers, fantastic land-scapes, monstrous animals, images of unrealities, on which we could muse indefinitely. What we effected by mechanical unconsciousness with the wretched poverty of ink, the art of the future will achieve consciously with the charm of all the colours of the palette. Did you ever try to mix at random by the palm of the hand the pure colours on the palette? There result fusions and unthought of harmonies, most vivid and superb, in which you seem to recognize confusedly sketched a thousand mysterious scenes sparkling with light. FAVRETTO combined some of his pictures from blotches of casual colours, and at times from the incoherence of a sketch placed upside down. FORTUNY sought the motif of his water-colour scenes in the vague suggestive forms left on sheets of paper by blots of water and smoke of a fire

The artists of the future will not fall into that error, they will compose harmonies of colours and forms free from all control of natural forms and colours. They say; "because we love colour, we refuse to limit it, and we accept all its possibilities, contained between the extreme points of the spectrum",

ITALIAN.

PAPER 3.

Time allowed—1½ hours.

Maximum marks—60.

Write a composition, in Italian, on *one* of the following subjects;—

1. Dante Alighieri e la Divina Commedia.
2. I Giuochi Olimpici.
3. Il Futurismo.
4. Il mio passatempo favorito.
5. Italia vecchia, Italia nuova.

ARABIC LANGUAGE.

PAPER 1.

Time allowed—2 hours.

Maximum marks—65.

(All the passages carry equal marks.)

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

(a) قيل إن عمراً خرج من منزله يريد عبد الملك فعذر بالبساط فقالت له امرأته نائلة بنت قريض بن ربيع بن مسعود نشدتك الله إن تأتيه فقال دعني عنك فوالله لو كنت نائماً ما أيقظني وخرج وهو مكفر بالدرع فلما دخل على عبد الملك قام من هناك من بني أمية فقال له عبد الملك ' وقد أخذت الأبواب ' أتى كنت حلفت لئن ملكتك لاشدتك في جامعة ' فأتى بجامعة فوضعها في عذقه رشدها عليه فايقن عمرو أنه قتله فقال انشدك الله يا أمير المؤمنين فقال له عبد الملك يا أبا أمية مالك جئت في الدرع ' اللقتال ؟ فايقن عمرو بالشر فقال انشدك الله إن تخرجني إلى الناس في جامعة ' فقال له عبد الملك واما كوني أيضاً وأنا أمكر منك ' أتريد أن أخرجك إلى الناس فيمنعوك ويستنفذوك من يدي ؟ وخرج عبد الملك إلى الصلوة وأمر أخاه عبد العزيز وقد كان قدم من مصر في ذلك اليوم بقتله إذا خرج وقد قيل امرأته الوليد بذلك فلما دنى منه عبد العزيز ناشده عمرو بالرحم فتركه ' فلما رجع عبد الملك من الصلوة رآه حياً قال لعبد العزيز والله ما أردت قتله إلا من أجلكم ألا يحوزها (أي المملكة) دونكم ' ثم اضجعه فقال له عمرو اعذر يا ابن الزرقاء ' فذبحه

(b) اعلم أن الدنيا سريعة الغناء قريبة الانقضاء تعد بالبقاء ثم تخلف في الرفاء ' تنظر إليها ساكنة مستقرة وهي سائرة سيراً عنيفاً ومهتجة ارتحالاً سريعاً ' ولكن الناظر إليها قد لا يحس بحركتها فيطمئن إليها وإنما يحس عند انقضائها ومثالها الظل فإنه متحرك ساكن ' متحرك في الحقيقة ' ساكن في الظاهر ' لا تدرك حركته بالبصر الظاهر بل بالبصيرة الباطنة ' ولما ذكرت الدنيا عند الحسن البصري رحمة الله عليه انشد وقال :

احلم نوم أو كظل زائل أن اللبيب بمثلها لا يخدم

وكان الحسن بن علي بن أبي طالب كرم الله وجهه يتمثل كثيراً ويقول :

يا أهل لذة دنيا لا بقاء لها إن اختار بظل زائل حمى

وقيل إن هذا من قوله — ويقال إن إعرابياً نزل بقوم فتقدموا إليه بطعام فاكل ' ثم قام إلى ظل خيمة لهم فنام هناك ' فاقتلعوا الخيمة فاصابته الشمس فانتهب فقام وهو يقول :

إلا إنما الدنيا كظل بنيته ولا بد يوماً أن ظلك زائل

وكذلك قيل :

وإن امرأ دنياه أكبر همه لمستمسك منها بحبل غرور

(c) مدينه دمشق حرسها الله تعالى خاتمة بلاد الاسلام التى استقر فيها و عرس مدن التى اجتليها قد تعلت بازاهير الرياحين وتجلت فى حلال سندسية من البساتين وتشرقت بان آوى الله تعالى المسيح و أمه صلى الله عليهما منها الى ربوة ذات قرار ومعين ، طل ظليل رماء سلسبيل ، تنساب من انبه انسياب الا راقم بكل سبيل و رياض تحيي بنسيمها العليل ، تتبرج لناظريها بمجئلى صقيل بتناديهم هلموا الى معرس الحسن و معقيل ، قد سئمت ارضها كثرة الماء حتى اشتاقت الى الظماء فتكاد تناديك بها الصم الصلاب ” ارض برجلك هذا مغتسل بارد و شراب “ قد احدثت البساتين بها احداق الهالة بالقمر واكتنفتها اكتناف الاكمام بالثمر ، والله صدق القائلين : ان كانت الجنة فى الارض فدمشق لاشق فيها وان كانت فى اسماء فهى بحيث تساميتها وتكادها *

(d) وقد كان رجل من اهل العراق اتى المدينة فى طلب جارية رُفعت له قارئة قرالة ، فسأل عنها فوجدها عند قاضى المدينة فاتاه رساله ان يعرضها عليه فقال القاضى له يا عبد الله لقد ابعدت الشقة فى طلب هذه الجارية فما رغبتك فيها ؟ لما رأى من شدة إعجابه بها ، قال إنها تغنى فتجيد ، فقال القاضى ما علمت بهذا — فآلم عليه فى عرضها ، فعرضت بحضرة مولاه القاضى فقال لها الفتى هاتى - فتغنت :

الى خالد حتى استعين بخالد فزعم الفتى يرجى ونعم المومل

ففرح القاضى بجاريته وسر بغنائها وغشيه من الطرب امر عظيم حتى اقعدما على فخذها وقال هاتى بابى اسم بيتا ، فتغنت :

اروح الى القصاص كل عشيّة ارجى ثواب الله فى عدد الخطا

فزاد الطرب على القاضى ولم يدر ما يصنع فاخذ نعليه فعلقهما فى اذنه رجلا على ركبتيه رجعل ياخذ بطرف اذنه والذعل معلقة فيها وهو يقول : اهدنى الى بيت الحرام فأتى بدنة : حتى ادى اذنه فلما اسكت الجارية اقبل على الفتى فقال : يا جيبى انصرف فقد كفا فيها راغبين قبل ان نعلم انها تقول فنحن الآن فيها ارب ، فانصرف الفتى *

ARABIC LANGUAGE.

PAPER 2.

Time allowed—2 hours.

Maximum marks—65.

Translate into Arabic, adding necessary vowel-signs :—

This lady was the daughter of a Florentine nobleman. Dante met her at her father's house, and henceforth and in secret his life was devoted to her. He met her rarely ; he spoke to her even more rarely ; so his love for her remained unspoken and perhaps unsuspected. Why did he not avow his love for Beatrice ? Perhaps it was mere shyness, for no man could be more proud than this pale Florentine. Or perhaps it was the feeling that

Beatrice wa' too pure and remote to be the subject of any earthly affection. He said himself, 'It is my hope that I shall yet write concerning her what hath not before been written of any woman.' How he fulfilled that hope we shall soon see' Whatever were his reasons for keeping silence, Beatrice never knew of his feelings, and she married another man. Shortly after this she died, and passed, as Dante loved to imagine, into the bliss of Paradise. In the course of time he himself married, but he never forgot the blessed vision of his beloved Beatrice. Years went by. Dante wrestled with his political enemies, Who at last grew too strong for him. In the year 1300 he was sent on a mission to the Pope in Rome, and during his absence his foes seized Florence and issued a decree condemning Dante and his friends to life-long exile.

ARABIC LANGUAGE.

PAPER 3.

Time allowed—2 hours.

Maximum marks—70

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

- (a) The future of the Arab race'
- (b) The League of Nations.
- (c) A plea for ' barbarism .'
- (d) The cultural background of the Muslims in India.
- (e) Al Ma'mum

ARABIC CIVILIZATION,

PAPER 1.

Time allowed—3 hours.

Maximum marks—'100.

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

1. *Either, (a)* Draw a map of Arabia and the neighbouring regions, showing the territories under the Lakhmites, the Ghassanids, the Kinda Confederacy, and the Abyssinians, also the distribution of the important Arab tribes about the time of the Prophet.

Or, *(b)* Show by a map the extent of the Empire which Sultan Salah al-Din (Saladin) left to his successors. How would you justify his conquest of Syria and Mesopotamia ?

2. Trace briefly the history of the relations of the Prophet with the *Ansar*, and discuss their subsequent position in the Muslim State founded by him,

3. ' The Caliphate of Mu'awiya opens an entirely new period in the constitutional history of Islam. The Caliph ceases to be the continuator of the *Sunna* of Muhammad, He is henceforth something more, he is in fact a " king " Develop this.

4. Sketch the career of Mukhtar. Discuss the nature of the movement led by him and the success it achieved.

5. 'The ultimate goal of the efforts to place the 'Abbasids on the throne was the establishment of a despotism modelled on Persian "Chosroism". Discuss, and illustrate from the early 'Abbasid period.

e. Analyse the political condition of the eastern lands of Islam in the period immediately preceding the Mongol invasions.

7. Trace the career of Al-Mansur Ibn Abi 'Amir. Why was he called *al-Hdhib*? What judgment would you pass on him?

8. *Either, (a)* Give an account of the development of literature, philosophy, and science under the early 'Abbasids.

Or, (e) Sketch briefly the state of Islamic culture in Cordova at the beginning of the eleventh century.

9. Trace briefly the origin and growth of the Wahhabis. What were the doctrines which the founder of Wahhabism preached? Trace the history of this movement in India.

10. Write notes on *any four* of the following :— Zindiq, Shaikh al-Islam Maqawqas, Muhtasib, Jizya, Sunna, Taqlid.

ARABIC CIVILIZATION.

PAPER 2.

Time allowed—3 hour'.

Maximum marks—100.

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

1. What do you understand by the term *إيثار العرب*? Discuss our main sources of information about them? What is the value of these narratives as history and as literature?

2. What are the distinguishing features of the Mecca and Medinah Suras? Which Arabian sciences have direct bearing on the Qur'an? Mention one or two of the best known works relating to each of them-.

3. Name the six canonical works on *(الصالح الستة)* and write short notices of their authorm

4. Write a note on the nature of the contents of the Arabic poetry produced under the Umayyads and show its importance for a knowledge of 'Arabism'.

6. Discuss the value and importance of the literature of travel in Arabic.

6, Discuss critically *one* of the following and estimate its worth :—

(a) كشف الظنون (b) العقد الفريد (c) زفيات الاعيان (d) كتاب الأغني

(e) كتاب الملوك (f) كتاب الملل والنحل للشهرستاني

7. Discuss the origin and development of lexicographical literature in Arabic. Consider the following opinion: 'Arabic philology evinces an exceedingly keen observation of the phenomena of language'.

8. Give an account of the life and work of al-Qbazali.

9. Write what you know of the Shu ' ubiya movement.

10. Write a critical note on *either* the poetry of Shattqi *or* the prose of al-Manfalutl.

PERSIAN LANGUAGE.

PAPER 1.

Time allowed—2 hours.

Maximum marks—65.

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

Translate into English:—

A

(۴) و چون مصاف راست شد سلطان علاء الدین بعد آنچه تمام سلاح پوشیده بود بفرمود تا قباے اطلس لعل معدنی بیاورند و بر زیر تمام سلاح پوشید خواص و مقربان سوال کردند که حکمت بادشاه درین که سلاح را بقباے لعل می پوشاند چیست فرمود که برای آنکه اگر زخم تیر یا نیزه اندام را مجروح گرداند لعلی خون بر سلاح من بواسطه قباے لعل ظاهر نباشد تا دل حشم من نشکند - لشکر غور را ترتیبی است در استعداد جنگ پیاده که چیزی میسازند از یک تا خام کار و بر هر دروڑی پی پنبه بسیار و کرباس منقش در کشند بشکل تخته - نام آن سلاح کاره باشد و چون پیدان گان غور آنرا بر کتف نهند از سر تا پای ایشان تمام پوشیده شود و چون صف زنند مانند دیواره باشد و هیچ سلاح از بسیاری پنبه بر آن کار نکند *

10

(۵) چالش گیتی خداوند سیوم بار بتماشای سرابستان کشمیر سگالش آن بود که چون بداد الخلافه اگر خرامش شود نخست در آن فیض گاه نیایش چند بدادار بے همتا رود - که و مه از گریوه سختی بسان هر بار در باز ماندن داستان بر سرانید - هر چند نهان بینی گیتی پیدا باز سودن اینان رسیده بود از غرض پرمستی بفرامشی بیروفت - تا ناگاه از فیروزی جنوبی سپاه آگهی رسید و بوال سگالش یاور افتاد - لیکن دیاس دلها لخته درنگ رفت و فرمان بآذین شد - و افروزش افروخته خواهش آمد - شب بیست و یکم پس از در گزینی بداندو کوچ شد و بباغ دلاریز بر آسودند - پیکو نگهبان رسم زار را پیدشانی دل چین آلود گشت و در بینان آگاه دل در انتظار بیدائی نهفته یابی بر نشستند - و از سوانح فرستادن شاهزاده سلطان دانیال باله آباد - از آنجا که افزایش والا پایگی فرزندان رضاجو آبیاری گلشن سراسر سلطنت است درین شب آن گوهر اکیلل خلافت را دستوری شد - و بسا آگهی اندرز آویزه هوشمندی گردانیدند - لخته از آن بر می نویسد - نخست مردم زاد در آبادی اندیشه بر کوشد و آنرا بکار کرد آراید - در باز پرس آهستگی و ژرف نگهی بکار برد و بر نگاشته و گواه و سوگند بسند نکند و گوناگون پرسش و پیدشانی سواد را یاور سازد *

15

(۶) ذکر نقاشان بدایع نگار و مذهبیان سحر آثار که هنر مبدان روزگار بودند - در آن حین اوراق زمانه بوجود ایشان تذهیب و تزیین داشت * نگارنده نقاش بهزاد دست * حریف سخن را چنین نقش بست * که حضرت شاه جنت مکان علیین آشیان نقاش نادره کار مصور نازک قلم سحرنگار بودند - هر چند اسم شریف آنحضرت را در تعریف هنروران روزگار در آوردن نوعی از گستاخی است اما چون صعیفه حال سعادت فالش بدین نقش بدیع آراستگی داشت بذکر آن جرات نبود - آنحضرت

شاگرد استاد سلطان محمد مشهور بودند - طواحي و نزاکت قام را بمرتبه کمال رسانیده بودند - در آغاز جواني ذوق و شوق بسيار باينکار داشتند و استادان نادره کار در کتابخانه معموره کار مي کردند - آقا ميرک انيس خاض و مونس بزم اختصاص بود - آنحضرت باينطبقه آلفت تمام داشتند و هر گاه از مشاغل جهانواني و توددات مملکت آراي فراغت حاصل مي رسيد نقاشي ترطيب دماغ ميکردند *

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B

(i) خيز ای بت بهشتي ران جام مي بيار
که اديبهشت کون جهان را بهشت ران
نقش خورنق است همه باغ و بوستان
فرش ستبرق است همه دشت و کوهسا
اين چون بهارخانه چين پُر نقش چين
ران چون نگارخانه ماني پُر از نگار
آن انسر مرمع شاخ سمن نگر
ران پورده موشم گلها کامگار
اين چون عذار حور پُر از عنبرين شکن
ران چون بساط خلد پُر از عنبرين نگار

گلبن عروس ران بيدار است خويشتن
و ابرش مشاطه ران همي شويد از غبار
گاه طوبه آردش از گهرين سرشک
گاه نقاب سازنش از پرده بخار

15

(ii) در آخر داشت يوسف دير زاده
سپهر انداز گسردن نهاده
تگار ابلق چون چرخ فيروز
ز شب بسته هزاران رمل روز
ز نور و ظلمت اندر روی نشانه
برابر چون شب و روز زمانه
گره بر خروشه چرخ از دم ار
شکن در کاسه بدر از سم او
بهر سمش هلاله بسته از زر
برسم اختر رخشان مسمر
بزخم سم چو سنگ خاره خسته
ز هر ماه نش سياره جسته
اگر نعلش پويده در تگ و دو
بچرخ اندر نشسته چون مهر او

15

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) Bal:ur might appear to be nothing more than a splendid adventurer of exceptional ability, but that he seems, all through the amazing vicissitudes of his career, to have nourished the dream of founding an empire, and to have succeeded, not by the mere luck of a soldier of fortune but by a singular pertinacity and belief in his destiny. And even as an adventurer he is remarkable. A man could win his heart by his love of poetry as surely as by his swordsmanship. Was he flying from his enemies in bitter weather with a handful of followers? He would compose a few couplets as he rode, and his spirits revived as by magic. But it was his intense delight in the beauty of the world which made so large a part of his unquenchable zest in life. Was ever such a lover of flowers?

40

(e) A three years' famine gripped the district: not a blade of grass remained on the sun-baked ground, not a bird sang in the leafless trees; all, all had withered away, yet no rain came! The starving people cried aloud for food, and gazed hopelessly at the brazen sky. The oxen died by the roadside, and even the pariah dogs could not scrape a meal off the rubbish heaps.

The lad lived with his parents in a small village. Their scrap of land had yielded no grain for two seasons. At this cruel juncture the father bethought him of the family jewellery. This he disposed of for a few rupees, which brought a little rice—but it was very little, for the stock of the district was almost exhausted, and money had practically no purchasing-power left.

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PERSIAN LANGUAGE.

PAPER 3.

Time allowed—2 hours.

Maximum marks—70.

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

- (a) Persia's geographical position as the key to her political and cultural history.
- (e) The Arab and the Persian as a contrast in temperament and destiny.
- (c) Persia through the ages as a commercial and a maritime power.
- (d) The excellence of the Persian artist, and his superiority to the Persian architect and sculptor.

PERSIAN CIVILIZATION,

PAPER 1.

Time allowed — 3 hours.

Maximum marks—100

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

1. Show on the outline-map* provided—
 (a) the political divisions of Persia in 1250 ;
 (e) the route of Hulagu Khan ;
 (c) Tabriz, Shiraz, Yaad, Kirman, Alamut, Isfahan, and Nishapur.
2. What were the effects of the conversion of the Persians to Islam on the religious and political history of the Muslim world ?
3. Discuss the results of the Shi'a-Sunni schism during the 'Ahbasid Caliphate.
4. Outline the history of the minor dynasties of Persia in the tenth century A.D. What was their contribution to Persian literature ?
5. Sultan ' Shah-Rukh was pre-eminently a peaceful monarch and took delight, not in the ferocious proclivities of his father, hut in the encouragement of arts and literature/ Discuss this statement, and bring out the effects of the policy of Shah-Rukh on the literary activities of his period.
6. Give an account of the reign of Shah 'Abbas I, Why is he called ' the Great' ?
7. ' The happy reign of Karim Khan-i-Zand affords to the historian of Persia" that description of mixed pleasure and repose which a traveller enjoys who arrives at a beautiful and fertile valley in the midst of an arduous journey over barren and rugged wastes.' Amplify this statement.
8. Trace the development of arts and architecture during the Safawi period.
9. Write notes on any *three* of the following :—
 (a) al-Biruni, (b) *Zainu'l-Akhdar* of Gardizi, (c) 'Unsuii, (d) *Chahdr Maqdla* of Nizami Samarqandi, (e) Khaqam, (f) *Ta'rikh'i-Wassdf*.

PERSIAN CIVILIZATION,

PAPER 2.

Time allowed—3 hours.

Maximum marka—100,

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

1. Examine critically the story of Sultan Mahmud's treathient of Firdawsi as given in the *Chahar Maqala*. Do you think sectarian differences had any' thing to do with the development of this story ?

2. Review the history of the eighteenth century and account for the lack of literary activity in that period.

3. 'Pirdawsi found his country almost without a literature, and has left her a poem that all succeeding poets could only imitate and never surpass.' Discuss this statement. Compare Firdawsi's *Sfrahndma* with Nizftmi's *Sikandar-Ndma* in the light of these remarks.

4. Give a detailed appreciation of Sa'di as a poet, and account for the popularity of his *Gulistdn* in the east.

5. Name any *three* important exponents of Sufiism among the poets of Persia. Whom do you like best and why?

e. Examine critically the life and works of any *one* of the following :—
(a) 'Umar Khayyam, (a) Ata Malik-i-Juwaim, (c) Hamdu'llah Mustawfi of Qazwin, (d) Mirkhwand, (e) Hafiz-i-SlurazI, (f) Jami

7. 'The flabby, inflated, bombastic style, familiar to all students of the *Anwar-i-Suhaill*, has always tended to prevail where the patrons of Persian literature have been of Turkish or Mongolian race,' Give a brief survey of Persian literature under the Mongols to support this statement.

8. 'In Persia, at any rate, periods of great turmoil and disorder have generally produced the finest poetry.' Criticize this statement.

9. Give reasons for the outburst of literary activity during the Qajar rule. Critically examine the works of the best known poet of that period.

SANSKRIT LANGUAGE.

PAPER I,

Time allowed,—2 hoars.

Maximum marks—65.

Translate into English ;—

(a) उत त्वः पश्यन्न ददशं वाचसुत त्वः श्रुत्वा श्रुणोत्येनाम् ।
उतो त्वस्मै तन्वंवि सस्ते जायेय पत्न्य उग्रती सुवासाः ॥

Write notes on त्वस्मै । सस्ते । उग्रती ।

(b) साक्षात्कृतधर्माण ऋषयो बभूवुः । तेऽवरेभ्योऽसाक्षात्कृतधर्मभ्य उपदेशेन मन्त्रान्सं-
प्रादुः । उपदेशाय ग्लायन्तोऽवरे विरमग्रहणायेमं ग्रन्थं समास्त्रासिषुः । वेदश्च वेदाङ्गानि च ।
विस्मं भिस्मं भासनमिति वा ।

(c) दुःखार्ते मयि दुःखिता भवति या हृष्टे गृह्णता तथा
दोने दैव्यसुपैति रोषपरुषे पथ्यं वचो भाषते ।
कार्त्तं वेत्ति कथाः करोति निपुणा मत्संस्तुते रम्यति
भार्या मन्त्रिवरः सखा परिजनः सैका बहुत्वं गता ॥

(d) विकीर्णसप्तर्षिर्बलिप्रदासिभिस्
तथा न गाङ्गेः सलिलोर्दिवश्च्युतैः ।
यथा त्वदोयैश्चरितैरनाविलोर्
महोदरः पावित एष सान्धयः ॥

(e) कपोलार्धनिर्मलमूर्तिवरसा संदष्टसर्पत्वचा
कण्ठे जीर्णलताप्रतानवलयेनात्वर्यसंपीडितः ।

असंख्यपि शकुन्तलीनिमित्तं विभज्यतामखलं

यत्र स्वाप्तिरिवाचक्षो सुनिरसावभ्यर्कविम्बं खितः ॥

(f) अथ तां तयायसां सरस्वतीं हृष्टा पितामहो भगवान्कमलोत्पत्तिलम्बश्यालसूचा-
मिव धवलश्रीपवीतिनीं तनुमुदहन् दक्षिणेन करेण निवार्य शापकलकलमतिविमलदीर्घ-
दंशनकिरितैः पूरयन्नाशाः सुधीरमुवाच—“ब्रह्मन् न खलु साधुवेवितोऽयं पन्था येनासि प्रवृत्तः ।
निहृष्येण परस्तात् । कियद्दूरं वा वस्तुरीक्षते । विश्रज्ज्या हि धिया पश्यन्ति कृतबुद्धयः सर्वानर्थान्
सतः सतो वा । निसर्गविरोधिनी चैर्यं पथःपावकयोरिव धर्मक्रोधयोरैकजं वृत्तिः । आलोकम-
पहाय कथं तमसि निमज्जसि । अमा हि मूलं सर्वतपसाम्” ।

SANSKRIT LANGUAGE.

PAPER 2.

Time allowed—2 hours.

Maximum marks—65.

Translate into Sanskrit :—

(a) 'My son,' said Govinda, 'I am ready to oblige you. But you must not enter my cell by night. For renunciation is recommended to ascetics, to you and to me as well. As the proverb puts it :—

Ascetics come to grief through greed ;
And kings, who evil counsels heed ;
Children through petting, wives through wino,
Through wicked sons a noble line ;
A Brahman through unstudied books,
A character through haunting crooks ;
A farm is ruined through neglect ;
And friendship, lacking kind respect ;
Love dies through absence ; fortunes crash
Through naughtiness ; and hoarded cash
Through carelessness or giving rash.

(e) 'Where is God ?' said the black girl to the missionary who had converted her. 'He has said "Seek and ye shall find me," ' said the missionary. The missionary was a small white woman. She was a born apostle of love. At school she had adored one or other of her teachers with an idolatry that was proof against all snubbing, but had never oared much for girls of her own age and standing. Her love affairs, full at first of ecstatic happiness and hope, some bow became unreal and eluded her in the end.

SANSKRIT LANGUAGE.

PAPER 3.

Time allowed—2 hours.

Maximum marks—70.

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

(a) India's contribution to world civilization, if any.

- (b) The man of virtue commonly
Is hateful to the king,
While riches to the scamps and fools
Habitually cling,

- (c) सत्यानृता च पक्षा प्रियवादिनो च
हिंसा दयाक्षुरपि चार्थपरा वदान्धा ।
नित्यव्यथा प्रचुरनित्यधनागमा च
वाराहमेव नृपनीतिरनेकरूपा ॥

- (d) अतिरमण्ये काव्ये पिशुनोऽश्वेयति दूषणान्धेव ।
अतिसुन्दरेऽपि अपुष्पि व्रणमेव हि मक्षिकानिकरः ॥

SANSKRIT CIVILIZATION.

PAPER 1,

Time allowed-3 hours.

Maximum marks—100.

[Candidates should attempt five questions.]

All the questions carry equal marks.

1. Either, (a) What is the date of the *Rig-veda* as it is generally accepted ? State briefly how it was arrived at. Consider to what extent the results of recent archaeological investigations affect this date assigned to the *Rig-veda*.

Or, (b) Make clear the relation of the 'Indus Valley civilization' to the civilization represented by the *Rig-veda* and the civilization of countries west of the Indus. Also ascertain the influence of the 'Indus Valley civilization' on the later developments of Indian civilization.

2. Either (a) Estimate the inter-relation between the *Rig-veda* and the *Avesta* from the point of view of both language and culture.

Or, (b) Write a critical comment on the secular hymns of the *Rig-veda*.

3. Compare the Indra of the *Rig-veda* with the Indra of the later *Puranas*. Bring out the affinities which you are able to discover between the Indra of the *Rig-veda* and the Sri Krishna of the *Puranas*.

4. Either, (a) Give a brief account of Yaska's contribution to Vedic exegesis. Write what you know of the Commentaries on Yaska and ascertain the dates of these commentaries.

Or, (b) Write an account of the Commentaries on the Vedic Samhitas which preceded Sayana, and make clear how far Sayana is indebted to them.

5. Either, (a) Write an account of the contents of the *Atharva-veda*, and estimate the civilization represented by the Samhita of this Veda.

Or, (b) Estimate the position of the *Atharva-veda* in Hindu ritualism and in Hindu philosophy.

e. Either, (a) Write a comparative and appreciative note on the delineation by Kalidasa of the character of Siva in the *Kumdrasambhava* and of Kanva in the *Sakuntala*.

Or (b) Consider critically whether the *Ritusamhara* is a work of Kalidasa'

7. Either, (a) 'The *Mricchakatikā* offers a challenge to all canons of orthodoxy/ Justify this statement.

Or, (b) Consider who is the 'hero' in *Vepfāmhara*.

8. Either (a) Estimate India's contribution to the world in the field of 'fable' literature and in the field of mathematics.

Or, (b) Estimate the Greek influence on the Indian theatre and on Indian art.

9. (a) Make clear to what extent some of the well-known Sanskrit poet of the classical period have drawn upon the *Arthasāstra* of Kautilya for the material in their poetry.

(b) Consider whether the ancient Indians troubled themselves much about their political rights and about representative governments, or whether they were simply satisfied with good government.

10. Write short notes on any three from each of the following two groups:—

(a) *Saddharmapundarikā*, *Bṛhatsarphitā*, *AshtadṅgaJiridaya*, *Mudrarakṣha*, *Vḍkyapadiya*, *Tantravarttika*, *Manasara*, *Ratndwlt*.

(b) Caraka, Nagarjuna, Bana, Kdiemendra, Vatsyayana, Aryabhata Kaihana, Kamandaka.

SANSKRIT CIVILIZATION.

PAPER II.

Time allowed—3 hours.

Maximum mark—100.

[Candidates should attempt Question 1 and not more than four of the remaining questions.]

All the questions carry equal marks.

1. Either, (a) Draw a map of India to illustrate Baghu's march of conquest described by Kalidasa in the *Raghuvamśa*.

Or, (b) Draw a map to illustrate India at the time of the Buddha.

2. Either, (a) 'The importance of Alexander's Indian Campaign has been both over-estimated and also under-estimated.' Consider this statement in detail.

Or, (b) 'The result of the Aryan conquest of India has been more in the direction of Indianizing the Aryans than in the direction of Aryanizing India.' Discuss this statement.

3. Describe the various attempts made by monarchs in ancient India to consolidate the whole of India into a single political unit, and estimate the success of such attempts.

4. Make a comparative study of the life of the Buddha and of Śrī Rama, and show how these two persons represent the Buddhistic and the Hindu ideals of life.

5. Either, (a) Bhīṣma, Drona, and others fought for a cause which they regarded as unjust ; Yudhiṣṭhira pawned his kingdom in a gamble ; Dasaratha disinherited his legal heir to oblige one of his consorts. Consider critically the significance of these events described in Sanskrit epics for the study of the political condition in ancient India'

Or, (b) Make clear the part played by the Maharsis in the public life of ancient India as depicted in the *Purais*.

6. Describe briefly the character of Draupadi as portrayed in the *Mahabhdrata* and consider how far she may be taken as representing a type or an ideal of womanhood in ancient India.

7. *Either*, (a) Describe the martial exploits of a few of the well-known members of the Brahman caste in ancient India, and make clear in what relationship the Brahman caste stood to the art of war.

Or, (b) Have works like the *Manu-smṛiti* to be regarded as exact re-enactments of some permanent and unchangeable codes of conduct in Hindu society, or as codifications of the altered social and political conditions of the Hindus obtaining at the time of their compositions? Substantiate your answer.

8. *Either*, (a) Estimate the contribution of the Dravidians to the make-up of the Indian civilization.

Or, (b) Estimate the contribution of India to the culture and civilization of other countries in ancient times.

9. Describe the 'city life' of ancient India, as portrayed in Sanskrit literature, drawing special attention to the part played by wealth and luxury in that life.

10. Write notes on any six of the following :—

- (a) The republics in ancient India.
- (b) Flags and flag-marks in ancient India.
- (c) The Pallava School of Architecture.
- (d) The Huns.
- (b) The University of Nalanda.
- (f) The Asoka inscriptions.
- (g) The art of writing in Vedic times.
- (h) The Ajanta paintings.
- (i) The Stupas.
- (j) The Nine Nandas.
- (k) The Mlecchas.
- (l) Svayamvara.

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 :—

(a) 'Tarn kim mafinasi Ambattba ? Idha khattiya khattiyarii kismicid eva pakarane khura-mundam karitva a'saputena vadhitva rattha va nagara va pabbajeyyup. Api nu so labetha brahmanesu asanam va udakaip va ti ?'

' Labetha bho Gotama.'

' Api nu nam brahmṛna mante vaceyyum va no va ti ?'

' Vaceyyum bho Gotama.'

' Api nu'ssa itthisu avataqi va assa anavatam va ti ?'

' Anavaṭaqa hi 'ssa bho Gotama.'

' ttavata kho Ainbattha khattiyo parama-nihlnatam patto hoti yad eva nam khattiya khura-inundam karitva assaputena vadhiva vattha va nagara va pabbajenti. Iti kho Ambattha yada pi khattiyo parama-nihlnatam patto hoti tada pi khattiya va settha hina brahmana.

8

(b) So kho aham bhikkhave kimkusalagavesi anuttaram santivarapadani pariyesamano yena Uddako Jlainaputto ten' upasankamim, upasarikainitva Uddakam Ramaputtaip etad avocam : Iccham' aham avuso imasmiin dhammavinaye brahmacariyam caritun ti. Evam vutte bhikkhave Uddako Ramaputto mam etad avoca : Viharat' ayasma, tadiso nyam dhammo yattha vinnu puriso na cirass' eva sakam acariyakam sayam abhinna sacchikatva upasampajja vihareyya ti. So kho aham bhikkhave nacirass ' eva khippam eva taip dhammam pariyaṇim. So kbo aham bhikkhave tavataken ' eva otthapahatamattena lapitalapanamattena nanavadan ca vadami theravadau ca, janami passamiti ca patijanami ahaft c' eva anne ca.

B

(c) Ma jfitim puccha, caranan ca puecha,
kattha have jayati jataveclo :
nicakulino pi muni dhitima
ajaniyo hoti hirinisedho

saccena danto damasa upeto
vedantagu vusitabrahmacariyo,
kalena tamhi havyain pavecche,
yo brahmario punnapekho yajetha,

Ye kame hitva agiha caranti
susaiinatatta tasaram va ujju
kalena tesu havyaip pavecche,
yo brahmano punnapekho yajetha.

Yo kame hitva abhibhuyyacari,
yo vedi jatimaranassa antaipj
parinibbuto udakarahado va sito,
tathagato arahati purajasam.

Samo samehi visamehi dare
tathagato hoti anantapaimo
anupalitto idha va huraṇam va,
tathagato arahati purajasaip.

9

(d) Tena kho pana samayena samanera bhikkhusu agarava appatissa asabhagavuttino viharanti. Bhikkhu ujjhayanti khlyanfcī vipacenti : katham hi uama samanera bhikkhusu agarava appatissa asabhagavuttino viharissanti ti. Bhagavato cfcam attham arocesum. Anujanami bhikkhave pancāh, ahgehi samannagatassa samanerassa dandakammam katum : bhikkhunani alabhaya parisakkati, bhikkhunam anattbaya parisakkali, bhikkhunarp avasaya parisakkati, bhikkhu akkosati paribhasati, bhikkhd bhikkhuhi bhedeti. Anujanami bhikkhave iinehi pancāh' ahgehi samannagatassa sama-ṇerassa daṇḍakammam katun li.

8

(b) Kaveyyamatta vicariinha pubbe/ gamagatnam purapurarn//
ath-addasama sambuddhaip/ saddha no udapajjatha//
So me dhammam adesesi/ khandhe ayatanani dhatuyo ca//
tassaham dhammam sutvana/ pabbajiip anagariyam//
Bahunnam vata atthaya/ bodhim ajjhagarna muni//

bhikkhunam bhikkliumnam ca ye niyamagataddasa//
 Svagatam vata me asi/ mama buddhassa santike//
 tisso vijja anuppatta/ kataiji buddbassa sasanau ti//
 Pubbe-nivasam janami/ dibbacakkhum visodhitam//
 tevijjo iddhippatto 'rahi/ cetopariyaya-kovido H//

8

(f) Kathaii ca bhikkhave bhikkhu vidhuro hoti ?

Idha bhikkhave bhikkhu araddhaviriyo viharati akusalanam dhammanam pabanaya kusalanani dhamrnaimn upadaya thftmava dalhaparakkamo anikkhattadhuro kusalesu dhammesu. Evam eva kho bhikkhave bhikkhu yidhiro hoti ?

Kafchan ca bhikkhave bhikkhu nissayasampanno hoti ?

Idha bhikkhave bhikkhu ye te bhikkhu bahussuta agatagama dhamma-dhara vinayadhara matikadhara te kalena kalam upasafikamitva paripucessati paripafihati. Idaip bhante katham, imassa ko attho ti ? Tassa te ayasmanto avivaṇṇa c' eva vivaranti anuttanikatan ca uttaniṃ karonti anekaviliitesu kankhatthaniyesu dhammesu kankham pativinodenti. Evam kho bhikkhave bhikkhu nissayasampanno hoti.

8

(g) Atth' esa maharaja nibbanadhatu santft sukha pamta, tam samma patipanno Jinanusatthiya sankhare sammasanto pannaya sacchikaroti. Yatha maharaja antcvasiko acariyanusatthiya vijjam pafifiaya sacchikaroti, evam eva kho maharaja samma patipanno Jinanusatthiya pannaya nibbanam sacchikaroti. Katham pana nibbanam datthabban ti : anltito nirupaddavato abhayato khemato santato sukhato satato panitato sucito sitalato datthabbam. Yatha maharaja puriso bahukatthapunjona jalita-kathitena aggina dayhamano vayamena tato muficitva niraggikokasam pavisitva tattha paramasukham labheyya, evam eva kho maharaja yo samma patipanno so yoniso manasikarena byapagata-tividhaggaissaiitapam paramasukham nibbanam sacchikaroti.

8

(h) Savatthiyam hi dcvasikam Anatbapindikassa gehe dye bhikkhusa-hassani bhuijanti, tathi Visakhaya maha-upasikaya ; Savatthiyan ca yo yo danam datukamo hoti, so so tesam ubhionam okasam labhitva va karoti. Kim karaiift ? 'Tumhakara danaggarn Anathapindiko va Visakha va agata' ti pucchitva, 'nagata' ti vutte, satasahassam vissajjetva katadanam pi, 'kim danam nam' etan 'ti garahanti. Ubho pi tebhikkhusamghassa rucii ca anucchavikakiccani ca ativiya jananti. Tesu vicarentesu bhikkhu cittarupam bhuijanti ; tasma sabbe daiiain datukama te ga.hetva va gacchanti.

8

PALI LANGUAGE.

PAPER 2.

Time Allowed— 3 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) At that time there was in Rajagaha a company of seventeen boys, friends of each other ; young Upali was first among them. Now Upali's father and mother thought: 'How will Upali after our death live a life of ease and without pain ?' Then Upali's father and mother said to themselves : 'If Upali could learn, writing, he would after our death live a life of ease and without pain.' But then Upali's father and mother thought again: 'If Upali learns writing, his fingers will become sore. But if Upali could learn arithmetic, he would after our death live a life of ease and without pain.'

20

(a) The person who has attained final Nibbana, does he exist in the Goal, or does he not exist therein ?

He exists in the Goal.

Is then the person, who has finally attained Nibbana eternal ?

Nay, that cannot truly be said.

Is the person, who has attained final Nibbana and does not exist in the Goal annihilated ?

Nay, that cannot truly be said.

20

(c) ' There are these three teachers, Seniya, to be found in the world—who are the three ? There is first, Seniya, that kind of teacher who declares that there is a real, persistent soul in the life that now is, and in that which is to come ; then there is the kind of teacher, Seniya, who declares that there is a real, persistent soul in the life that now is, but not a soul in a future life ; lastly, there is a certain teacher who does not declare that there is a soul either in the life that now is, nor in that which is to come. The first, Seniya, of these three is called an Eternalist, the second is called an Annihilationist ; the third of these, Seniya, is called the teacher, who is Buddha supremo. These are the three teachers to be found in the world.

25

PĀLI LANGUAGE.

PAPER 3.

Time allowed—2 hours.

Maximum marks—70.

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

(d) The six heretical teachers and the paribbajakas at the time of the emergence of Buddhism.

(e) Pattecasamuppada or the Theory of Dependent origination.

(c) Buddha's attitude towards the Caste-system, Brahmanism and Jainism,

(d) The rites and ceremonies observed by the Hinayanist monks.

PALI CIVILIZATION.

PAPER 1.

Time allowed—3 hours.

Maximum marks—100

Candidates should attempt Questions No. 1 and 2 and not more than *four* of the remaining question"

All the questions carry equal marks.

1. Describe the lines followed in the textual arrangement of the first four Nikayas, and point out the different strata in the literary materials of the Nikayas'

2. Write biographical notes on any four of the following writers :—
Buddhaghosa, Asanga, Vasubandhu, Nagarjuna, Kamalasila, Aryadeva, and Dinnaga.
3. Discuss the value of the Ceylonese Chronicles as authentic sources of historical information.
4. State what you know about the various recensions of the *Pd̐timokkha-sutta*, *Dhammapada* and *Milindapanha*.
5. Describe the general arrangement of the Vinaya Pitaka in Pali and compare it with the Vinaya Pitaka of the Mula-Sarvastivadins.
6. Give a brief account of the Jataka and Avadana literatures of the Buddhists.
7. Write a dissertation on the Prajñāpāramitā literature of the Mahāyānists.
8. Write what you know about the recent finds of fragments of a Tripiṭaka in Sanskrit. How was this Sanskrit Tripiṭaka related to the Pali Tripiṭaka ?

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. Point out the historical and archaeological importance of any *five* of the following places:—
Kashmir, Gandhara, Savatthi, Rajagaha, Sarnath, KauSambi, Avanti and Magarjunikonda.
2. Show that the constitution of the Buddhist Sangha was democratic, differing from the political constitution of the Vajjians and the Licchavis on some vital points.
3. Compare and contrast the ideal of ASoka's Dhamma with that of Buddhism, and show that ASoka brought out Buddhism from the convents to the cities.
4. Trace the evolution of Mahayanism.
5. Give an estimate of the contributions made by Buddhism to Indian art, architecture and sculpture.
6. Mention the causes and circumstances that favoured the growth of Buddhism into an all-Asiatic religion.
7. Give an exposition of the philosophical views of any *three* of the following schools of Buddhism :—
The Muhasanghikas, Sammitiyas, Madhyamikas, Yogacaras, Andhakas, and Sarvaativadins.
8. What testimony do the Chinese pilgrims bear to the state of Buddhism in India in the 6th and 7th centuries A.D ?
9. Trace the history of the growth of the Orders of Nuns in the Buddhist Church.



VERNACULAR LITERATURE.

(1) BENGALI.

Time allowed—3 hours.

Maximum marks—200.

[Candidates should attempt Questions 1 and 9, and not more than three of the remaining questions. All the questions carry equal marks. The answers should be written in Bengali, and should be illustrated, as far as possible, by references to the literature itself.]

1. How far back can the existence of Bengali language and literature be traced? Give a critical account of the earliest documents that have been discovered, and discuss their value in the history of the language and literature.

2. Indicate the various periods or stages in the growth of Bengali literature, giving reasons for the division you propose. Discuss the fundamental characteristics of each of the periods or stages, and mention the important or typical works belonging to each of them.

3. Of the two Bengali translators of Sanskrit epics, Krttibas and Kasiram, whom do you consider to be superior in literary merit, in fidelity to the original, in richness of characterization, and in ethnological interest?

4. How far is it possible to apply the designation of a lyric to the medieval Vaisnava songs? In what respects do they compare or contrast with modern Bengali songs and lyrics?

5. Sketch the origin and development of the Bengali stage and drama up to the opening of the National Theatre, and discuss in this connexion the influence of the Sanskrit and English stage and drama.

6. Discuss the appropriateness of the terms Epic and Mahakavya as applied to the poems of Madhusudan, Hemchandra, and Nabinchandra. In what respects do they differ from or agree with the earlier (pre-British) narrative poems, in their form, substance, style, and purpose?

7. Give a critical account of the development of Bengali prose in the first half of the nineteenth century.

8. Discuss the general character and possibilities of modern Bengali versification.

9. Write a critical note on the currents and tendencies of the present-day Bengali literature.

(2) BURMESE.

Time allowed—3 hours.

Maximum marks—200.

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

1. What notable authors lived during the reign of Bodawpaya? Give a brief account of the main works of one of them.

2. Whom do you consider to be the greatest writer of Burmese prose? Mention his chief works and write an appreciation of the work you like best.

3. Trace the origin and development of the *Yadu*. Who, in your opinion is the best *Yadu* writer? Write an appreciation of one of his works'

4. How do you account for the late appearance of classical poetry in Burmese literature? Which do you consider to be the earliest genuine Burmese poem? Why? Write a short note on it.

5. Trace the origin and development of the Burmese novel. Who do you think is the best Burmese novelist? Why?

6. How does a *Pyazat* differ from a *Wuttu*? Who do you think is the greatest *Pyazat* writer? Give reasons.

7. How do you account for the popularity of the Ten Great Zats in Burmese? Give a critical estimate of one of them.

8. Make a critical study of the following poem and render it into plain Burmese prose:—

ပူဇော်သကာ၊ ဗုဒ္ဓပါရမီ၊ ဤစာဆိုမှ၊
 ငါ့ကိုလူများ၊ ကြည်ညိုပွားအံ့။ ယူထွားအရွယ်၊
 သင့်ရဲ့ငယ်က၊ ဆန်းကြယ်အထူး၊ ဂုဏ်ကျေးဇူးကို၊
 တိမ်မြူးမနေ၊ ဘော်ထုတ်ပေမှ၊ ညာကြေလွှမ်းကြား၊
 ကျော်ထင်ရှားအံ့။ နှစ်ပါးဤသို့၊ မကြံမြီတည်း၊
 ငါတို့သဘော၊ လူနှင့်နှော၍၊ မယောမယဉ်၊
 ဩအည်မလိုက်။ မတိုက်မတွန်း၊ နေဆန်းနေခါ၊
 သဒ္ဓါသဖြင့်၊ လုပ်ကျွေးလင့်လက်၊ နိဗ္ဗာန်မြင့်မဟူ၊
 ကြည်ညိုမှုကား၊ မည်သူမည်ဝါ၊ ငါ့တကာဟု၊
 မြတ်ရာမရွေး၊ လျှာခံရေး၌၊ နှိုင်းသွေးပုံယူ၊
 ရေဆိပ်တူ၏။ တလူသဝ၊ ဤကာလ၌၊
 သုခစီးပွား၊ မဖြစ်ခြားလည်း၊ ငါအားတိမှာ၊
 သံသရာဝယ်၊ ယုတ်မာအံ့နည်း။ ကြံတိုင်းတည်း၍၊
 အရည်းရှင်မှု၊ နှလုံးပြု၏။ လူတို့နားထွင်း၊
 မိုက်မလင်းကို၊ ဝင်းဝင်းထွန်းငြိုး၊ ဉာဏ်ဆီမီးဖြင့်၊
 မှောင်ကြီးကင်းပျောက်။ ငါ့စာရောက်က၊
 ငါ့အောက်ပညာ၊ နုသေးစွာသား၊ သန္တာမပြန်၊
 လူအဝှံအား၊ စိတ်မြားပညာ၊ ပွားပါလိမ့်မည်။
 သူသို့ရည်၍၊ သာကြည်ရှင်လန်း၊ လင်္ကာညွှန်းသော်၊
 ရဟန်းသူတော်၊ စပ်မလျော်ဟု၊ သိမြော်ကျမ်းဂန်၊
 ငါ့နောက်ကျန်သည်၊ နှုတ်လွန်သူများ၊ အပါယ်လားလိမ့်။
 ဘုရားလူ့ဘ၊ မုန့်နွလျက်၊ မိန်းမယောက်ျား၊
 လူ့စကားဖြင့်၊ မကြားစကောင်း၊ မဆိုတောင်းကို၊
 အကြောင်းဆောင်တွေး၊ ဆိုတုံသေးရှင်။

(3) GUJARATI.

(4) HINDI.

Time allowed—3 hours.

Maximum marks—200.

[Candidates should attempt Questions 1 And 2, and no' 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 into English :—

(a) बालधो बिसाल बिकरास ज्वाल जाल मानी

लंक कीलिये को कास रसना पसारी है ।

केधौ ब्योम बीधिका भरि हैं भूरि धूमकेतु

बीररस बीर तरवारि सी उघारी है ॥

तुलसी सुरिस चाप केधौ दामिनी कलाप

केधौ चलो मेह ते कसालु सरि भारी है ।

देखे जातुधान जातुधानी अकुलानी कहैं

“कानन उजारीयें अब नगर प्रजारी हैं” ॥

(b) यहि प्रकार मणि हीरक कुंडल उभय नुतिन मंह रावें

जनु शयधर के उभय पार्श्व मंह गुन बृहस्पति आरें ।

पति सुविशाल कपासु वक्ष पर सरकत मौक्तिक द्वारा

मनहुं नील घरपीधर परते बही सुरसरी धारा ।

कुंकुम तिलक कलाट सुशोभित सो यह भांति सुहारें

मानहुं सुघर नील अम्बुज मधि कर्णिकार छवि हारें ।

जेहि विधि उदित भातु निज भाते मेरुहि करत प्रकाशित

भयो तौन विधि रामरूपते सिंहासन उद्भासित ॥

(c) ग्वालनि तुम कत उरहन देहु,

पूछौ जाह भ्यामसुंदर को जेहि विधि सुखीं सनेहु ।

बारंहीते भई बिरत चित तज्यौ गाढ गुण मेह

एकहि चरण रहीहो ठाढ़ी हिम प्रीषम कतु मेह ।

तज्यौ मूल शाखा सो पवन सोच सुखानी देहु

अगिनि गुलाकात मोर्यों न अंग भगविकट बनावत वेहु ।

बकती कहा बांसुरी कहि कहि करि करि तामस तेहु

सुरभ्याम एहि भांति रिझै के तुमहु अघर रस खेहु ॥

(d) दीन न हो गोपी, सुनो दीन नहीं नारी कभी,

भूत दया मूर्ति वह मन से शरीर से ।

धीरे धुंधा वन में धुंधा से मैं विशेष जब

सुभक्तो बचाया मातृजाति ही ने खीर से ।

आया जब मार सुनि मारने की बार बार

अपरा अमीकनि बजाये हेमहीर से ।

तुम तो यहां की धीर ध्यान ही तुम्हारा वहां

जुभा सुनि पीछे कर पंचशर धीर से ॥

2. Explain in simple Hindi, commenting, where necessary, on the allusions :—

(a) मांगी नाच न केवट जाना । कहै तुम्हार मरसु में जाना ॥
चरण कमलरज कह सब कहै । मानुष करनि मूरि कह कहै ॥
तरनिउ मुनि घरनी होइ जाई । बाट परै मोरि नाच उड़ाई ॥
एहि प्रतिपासौ सब परिवार । नहिं जानौ कह और कवार ॥

(b) सब छविन आदि दे काहू छई न कुए बिजनादिक बात छगै ।
न छटै न बढ़ै निशि बासर केशव कीकन को तम तेज भगै ॥
भव भूषण भूषित होत नहिं महमत्त गजादि मसी न लगै ।
जलज बलज परिपूरण श्री निमि के कुल अद्भुत जोति जगै ॥

(c) रंगरूप रहित ललात सबही हैं हमें
वैसो एक और धार धीर धरिहैं कहा
कहै रतनाकर जरी हैं बिरहानल में
धीर अब जोति कौ जगार जरिहैं कहा ।
राखी धरि जभी उतै बलबल अरुप ब्रज
तासों काज कठिन हमारी सरिहैं कहा ।
एकही चरन साधि साध सब पूरी अब
धीर अंग-रहित अराधि करिहैं कहा ॥

(d) मोत किन्नरीय रहै निरत ही महेय यहाँ
जानि यों रतिय चित्त ग्रंथा बिधरावे ना ।
ताहि डर बार बार बलकापुरी के माहि
भङ्ग की प्रतिष्ठा खैचि चाप पै चढ़ावै ना ।
नागरि तियान नैन बिभ्रम प्रताप पाय
कारज में वाके तक जानि होन पावै ना ।
छूटत कटाक्ष बांकी भौंह की कमानन ते
कामी रूप बिभी बिना-बिभी रहि जावै ना ॥

40

3. 'Hindi poetry was born owing to the tumultuous valour of the Rajput clans in their battlefields.' Criticize or justify, giving an account of *at least three* works of bardic Hindi poetry,

26

4. Compare the literary merits of Tulsi's *Ramcharitmdnas* with those of Keshav's *Ramchandrika*,

25

5. 'The poets of the Bhakti school, though learned in Hindu philosophy, knew practically nothing of nature,' Comment on this criticism, giving quotations to justify your opinions,

35

6. Who in your opinion is the greatest Muhamumdan poet of Hindi literature? Give a brief account of his Hie and works and give reasons to justify your choice,

26

7. What do you know of the lives and works of any *three* of the following;— (a) Mirabai, (b) Behftri, (c) Matiram, (d) Dadu, (e) Bharatendu Harischandra?

25

8. Describe the growth of Hindi prose and give your suggestions for its future development'

25

9. 'Braj Bhasha poetry has no future.' Criticize or justify.

26

(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 1, 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. All questions should be answered in English.]

1. *Either*, (a) Distinguish between Lahndi, Central Panjabi, and Vernacular Hindustani.

Or, Comment on the statements that Urdu is based on Multani rather than on Braji, and that Hindi (Khari Boli) derives from Paishachi *via* Panjabi. 20

2. Keeping in view the interactions between life and letters, into how many periods would you divide Panjabi literature? Name *at least five* major writers of each period. 25

3. Discuss: 'The specific contribution of Panjabi literature to World literature in substance and form is its emphasis on (a) mysticism, (b) folksongs and romance, (c) history, (d) the expression of national character, (e) freedom of form, and (f) intimate connexion between poetry and music'. 35

4. What part has Persian played in the rise and development of Panjabi prose? 30

5. Analyse the influence of Sanskrit literature on Paajabi literature in the domains of (a) the story, (a) the allegory, and (c) the drama. 30

6. Show your acquaintance with the sources, arrangement, and contents of the *Adi Granth*. 30

7. Write biographical and critical notes on:—Charpat, Guru Amar Dasji, Rama and Shama, Bhai Mani Singh, Bhai Santokh Singh. 30

8. Discuss with reference to Panjabi poetry: 'Metre exercises a great influence on thought, diction, and style'. 30

9. Trace in some detail the influence of English literature on modern Panjabi literature, particularly on the work of Bhai Vir Singh, Puran Singh, Dhani Ram Chatrik, and Charan Singh Shahid. 39

10. Name the major poetical versions of the romantic legend of *Sassi and Punnun* and discuss the literary merits of any *one* of them. JQ

11. Discuss features common to Sufiisra and Bhagfci as they are reflected in Panjabi literature. 30

12. How far is the romantic legend of *Hlr and Rdajha* representative of the ideas and ideals, customs and manners, of the mediaeval Jat community? Give your answer in relation to any one major poetic version of the legend. 30

13. Discuss the problem of the *gosht* (ware), its service and disservice to literature. 80

14. Show your intimate knowledge of the form, diction, style, content, and influence of the poetry of Farid as it appears in the *Adi Granth*. 30

15. Classify Panjabi folksongs in view of their content, and give the technical names of at least *seven* types of them. 30

1e. Discuss the need of a Paajabi National Theatre and show your Acquaintance with the efforts made by Mrs. Richards towards this end. 30

(7) TAMIL,

Time allowed—3 hours.

Maximum marks—200.

[Six questions, and no more, should be attempted. All the questions carry equal marks.]

[You may write your answers *either* in English *or* in Tamil, except where otherwise directed.]

1. Discuss the antiquity of Tamil literature as compared with that of the sister languages of Southern India.
 2. Discuss the various opinions regarding the antiquity of Sangam literature and state your own opinion, with reasons.
 3. Point out the main difference between பெருங்கதை and செல்வதிகாரம் in the matter of style, versification, and other peculiarities.
 4. Mention, with their authors, the works included in பத்துப்பாட்டு, and write short notes on them.
 5. What are the chief epochs into which the history of Tamil literature may be divided? State briefly the chief characteristics of the works of those epochs.
 6. What do you know of the authors of மணிமேகலை, அரிச்சந்திரபுராணம், நைடதம், and இராமாநுஜநாதர்நந்தாதி?
 7. Write an historical sketch of Tamil prose literature, and mention the characteristics of early Tamil prose which distinguish it from modern prose.
 8. Give a brief sketch of the subject-matter of any **two** of the following works:—தக்கயாகப்பரணி, பிரபுலிங்கலீலை, பெரியாழ்வார்திருமொழி; and state the circumstances that led to the composition of any **two** of the following works:—காவழிநாற்பது, குறிஞ்சிப்பாட்டு, சிவஞானதிபம், சடிகாபரந்தாதி.
 9. Write a critical analysis of **two** of the following works:—மதுரைக் காஞ்சி, தகடர் யாத்திரை, திருவருட்பயன்.
- Give an account of the standard works on rhetoric in Tamil, pointing out their peculiarities, if any.
10. Estimate the influence of Sanskrit on Tamil literature. What was the effect of the revival of Brahmanic religions on Tamil literature in the eighth and ninth centuries after Christ?

(8) TELUGU.

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

(9) URDU.

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. ”بدقسمتی سے قریباً ہر ہندوستانی زبان کا یہی حال رہا ہے کہ جب مصنفین نے اس زبان میں لکھنا شروع کیا تو ان کی طرزِ تحویر سے قدرتی رنگ معدوم ہو گیا اور تصنع اور بناوٹ نے یہاں تک زور پکڑا کہ متأخرین نے متقدمین کے طرزِ تحویر کو بغیر کسی تبدیلی کے اختیار کر لیا “ *

Discuss.

2. ”جب کسی زبان کو دوسری زبانوں سے الفاظ یا مرکبات لینے کا لپکا پڑ جاتا ہے اور وہ انہیں بلا چون و چرا اپنے طور پر تصرف کے بغیر استعمال کی عادی ہو جاتی ہے تو اس کی تصویفی قوت، اختراعی قابلیت اور اشتقاقی اہلیت زایل ہو جاتی ہے “

Review the history of the growth of the Urdu language in the light of this statement.

3. دن رات سیر کرے سپید و سیاہ کی
تصویریں کھینچتے ہیں ترے جلوہ گاہ کی

How far is this a correct interpretation of the Urdu poet's task ?

4. ”غزل میں تنوع خیال کا تعلق صرف انہیں جذبات سے ہونا چاہئے جو عشق و محبت کی دنیا کے لئے مخصوص ہیں “ *

Explain the modern tendencies in Urdu ghazal and show how far they are in agreement with this proposition.

5. Describe the social and moral conditions of Northern India in the first half of the nineteenth century, as depicted in the poetry of this period.

B

6. Discuss the poetical merits of any two of the following poets, taking one from each group :—

(a) ناسخ، امیر مینائی، مومن

(b) جوش، چک بست، نظیر اکبر آبادی

7. Write a short essay on the treatment of nature in Urdu poetry.

8. Critically examine the salient features of Hall's style both as a prose writer and as a poet. Estimate his contribution to Urdu literature.

9. What is the value of the 'essay' as a form of literary expression? Whom do you consider the most outstanding essayist in Urdu and why?

10. Make a comparative study of the Masnavis of **میر حسن** and **دیا شکر نسیم**.

11. Discuss the principles underlying the writings, of the critics of Urdu poetry belonging to the old school,

ENGLISH LITERATURE (GENERAL).

PAPER 1,

Time allowed—3 hours.

Maximum marks—100'

[Candidate' should attempt five questions altogether, taking at least one, and not more than two from each of the three sections. All the questions carry equal marks,]

SECTION A.

1. 'Chaucer was the first English poet, and remains the most English of all—always excepting Shakespeare. Discuss.

2. *Either*, (a) Legouis declares that if Spenser had lived in the eighteenth or nineteenth century, he would probably have been a landscape-painter, not a poet. Can you explain this statement?

Or, (b) How much importance do you attach to the allegorical element in *The Faerie Queen*? Try to justify your answer.

3. Give a brief account of the principal dramas of any *one* of the following:—Marlowe, Webster, Ben Jonson.

4. Describe the special characteristics of Shakespeare's last plays (the 'Bomances'). Are they the crown of his dramatic achievement, or do they show a 'lamentable falling-off' from the heights attained in the greatest tragedies?

5. In his clowns 'Shakespeare ranges over the whole gamut of gradations between the coarsest jesting and the most profound humour passing into tragedy—between Pantaloon and Charlie Chaplin, the best existing representative of the Shakespearean clown'. Expand and illustrate.

SECTION B.

6. 'The greatness of Milton is primarily a moral greatness.' Discuss.

7. Write an essay on the sonnets of Milton.

8. What did Pope mean by 'Nature'?

9. Why is the term 'Augustan age' applied by literary critics to the early eighteenth century?

10. Try to account for the recent revival of interest in *either* Donne or Blake,

SECTION C.

11. Enumerate some of the ways in which the French Revolution affected the development of English poetry.

12. What, according to *The Prelude*, are the qualities necessary for a poet, and how did Wordsworth himself come to have them?

13. Write a critical account of the dramatic work of any *two* of the following poets:—Byron, Shelley, Tennyson, Arnold, Hardy.

14. Browning is sometimes praised for his 'profound philosophy', and sometimes denounced for his 'shallow optimism'. State and defend your own view.

15. Why did Swinburne appear to his contemporaries as a daring rebel?

ENGLISH LITERATURE (GENERAL).

PAPER 2.

Time allowed—3 hours,

Maximum marks—100.

(Candidate should attempt five questions in all, taking at least *one* and not more than *two*, from each of the three sections. All the questions carry equal marks.)

SECTION A.

1. How far does the charm of *Le Morte d'Aurthur* depend on Malory's gift for narrative?
2. Give some account of the great English translators of the sixteenth and seventeenth centuries, and examine the question why there should be so many of them in this period and so few in any other.
3. 'Before Dryden there were great English prose-writers, but there was no English prose.' Discuss.
4. On an examination of the English writings of Bacon, is it possible to justify the statement that he wrote the plays attributed to Shakespeare? State your reasons.
5. Write an appreciation of *The Pilgrim's Progress*.

SECTION B.

6. What is to be learned of the personal character of Dryden from his critical writings?
7. Either, (a) Compare and contrast *Gulliver's Travels* and *Robinson Crusoe*, Or, (b) Examine critically the prose style of Swift.
8. Write a short essay on Johnson and his Circle.
9. Describe the principal comedies of either Goldsmith or Sheridan, and contrast them with the Sentimental Comedy of the period.
10. 'The *bourgeois* made his first appearance as chief character or "hero" in the English novel as early as the eighteenth century.' Discuss.

SECTION C.

11. Estimate the influence of Lamb on the course of English literary criticism.
12. Can you account for the unparalleled popularity of *The Waverley Novels* when they first appeared?
13. Write an appreciation of the letters of any two of the following authors:—Lamb, Keats, FitzGerald, R. L. Stevenson.
14. 'The novel is to the Victorian age what the drama is to the Elizabethan age.' Discuss.
15. Write notes on any three of the following books:—*Eothen*, *The Way of All Flesh*, *The Four Georges*, *Sartor Resartus*, *Silas Marner*, *The Cloister and the Hearth*, *Tess of the D'Urbervilles*.

ENGLISH LITERATURE.

PERIOD 1.

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt five questions only. All the questions carry equal marks.)

1. *Either, (a)* Is it true that the Aristotelian theory of tragedy is inadequate, even inappropriate, to Shakespearean tragedy ?

Or, (b) Do you find in Shakespearean tragedy any principle of rationality and justice in human fortunes ?

Or, (c) How far do you think that the changing type and attitude in Shakespearean drama corresponded to Shakespeare's personal experience ? In particular, discuss his latest plays as expressive of himself and as response to the demands of the theatre.

2. *Either, (a)* Contrast the Shakespearean and the Jonsonian drama in respect of plot, characterization, and interpretation of life.

Or, (e) What elements are there in the Elizabethan drama that seem strange to modern realism ? Is it the richer or the poorer for these ?

Or, (c) Contrast 'romantic comedy' with other types of comedy, and discuss whether it is really entitled to the name 'comedy'.

Or, (d) With detailed reference to *at least one* of his plays, discuss the greatness and the defects of Webster.

3. *Either, (a)* Consider the historical importance of Spenser's verse a settling certain problems of English versification.

Or, (e) Which passages of Spenser remain in your mind as illustrative of his imaginative quality and his desire for beauty ?

4. *Either, (a)* Thinking of Spenser and Milton, consider the problem, for himself and for posterity, of the poet who is conscious of a religious and moral mission.

Or, (b) Giving a definition of 'epic', consider *The Faerie Queene* and *Paradise Lost* in relation to this definition.

5. *Either, (a)* Consider *Lycidas* as an example of its form, and also as the work of the man who was to write *Paradise Lost*.

Or, (e) indicate the characteristics of 'classical' tragedy as they are found in *Samson Agonistes*.

6. With detailed reference to some of Bacon's work, say whether you think that *wisdom* is to be ascribed to him.

7. To what qualities in Bunyan are due the perennial freshness and delightfulness of his work ?

8. *Either, (a)* Consider the prose style of any two authors of the period, naming their chief works. Show the adequacy of the style to the author's purpose, and indicate its place in the development of English prose.

Or, (b) Give some account of the types of prose work developed in the period, referring to the chief writers in each kind.

9. If you have read the *Apologie for Poetrie*, account for and discuss Sydney's views on versification, drama, and 'truth and justice in 'Poetry'.

10. Give an account of the Elizabethan fashion for sonnet-writing. Mention typical themes and rhyme-forms, and show that in the Elizabethan

sonnet, despite extremely artificial characteristics, genuine and intensely personal poetry is to be found.

11' Does the poetry of Donne attract or repel you ? What do you desire to find in poetry, and do you find it in his ?

ENGLISH LITERATURE.

PERIOD 2.

Time allowed—3 hours.

Maximum marks—100.

(Five questions to be attempted. All the questions carry equal marks.)

1. What do you gather of Swift's views on literary fames from the *Tale of a Tub*?
2. In what sense may the classical spirit in English poetry be said to have reached its height in Pope ?
3. Define the place of *either* Defoe *or* Fielding in the development of the English novel.
4. To what extent is the new spirit of scientific enquiry reflected in the literature of the period ?
5. Assess the contribution of *either* Goldsmith *or* Thomson in the evolution of the literature of romanticism.
6. What are Dryden's merits as a dramatist ?
7. 'Twenty letters of twenty pages do not display a character ; but one sharp word does.' Examine this statement with special reference to the method of Richardson and his place as a novelist.
8. What dramatist would you select as most representative of the spirit of *pure* comedy ? Illustrate.
9. 'Drawing-room diplomacy has often appeared in letters and memoirs ; but Sheridan was the first writer to make it the essence of a play.' Illustrate the significance of this, in its special relation to the period, from any one of the plays of Sheridan.
10. 'The eighteenth century produced the greatest English biographer, the greatest English historian, and the greatest English orator.' Discuss.
11. To what work or works of Swift would you go to throw most light on the politics of his time ? Illustrate.
12. What is the contribution of *either* Burke *or* Gibbon to the development of English prose ?
13. Examine the use of the heroic couplet as an instrument of satire.
14. Estimate the merits of *either* Pepys *or* Evelyn as diarists.
15. 'Urbanity is the hall-mark of the age.' Discuss,

ENGLISH LITERATURE.

PERIOD 3.

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

(a) Liko the leaves of the forest when Summer is green,
That host with their banners at sunset wove seen ;
Like the leaves of the forest when Autumn hath blown,
That host on the morrow lay withered and strown.
For the Angel of Death spread his wings on the blast,
And breath'd in the face of the foe as he pass'cl.

(b) In Arcadia still, but kings; the ferule of their sway not much harsher, but of like dignity with that mild sceptre attributed to King Basileus ; the Greek and Latin, their stately Pamela and their Philoclea, with the occasional duncery of some untoward tyro, serving for a refreshing interlude of a Mopsa, or a clown Damoetas !

(c) There grew pied wind-flowers and voilets,
Daisies, those pearl'd Areturi of the earth,
The constellated flower that never sets;
Faint oxlips; tender blue-bells, at whose birth
The sod scarce heaved ; and that tall flower that wets—
Like a child, half in tenderness and mirth—
Its mother's face with heaven's collected tears,
When the low wind, its playmate's voice, it hears.

(d) Ah ! then if mine had been the Painter's hand,
To express what then I saw ; and add the gleam,
The light that never was on sea or land,
The consecration, and the poet's dream,—
I would have planted thee, thou hoary Pile,
Amid a world how different from this !
Beside a sea that could not cease to smile;
On tranquil land, beneath a sky of bliss.

(e) If she were married to him to-morrow, I should think she had as good a chance of happiness, as if she were to be studying his character for a twelve-month. Happiness in marriage is entirely a matter of chance. If the dispositions of the parties are ever so well known to each other, or ever so similar before-hand, it does not, advance their felicity in the least. They always continue to grow sufficiently unlike afterwards to have their share of vexation ; and it is better to know as little as possible of the defects of the person with **whom** you are to pass your life.

- (f) He practised every pass and ward,
 To thrust, to strike, to feint, to guard;
 While less expert, though stronger far,
 The Gael maintained unequal war.
 Three times in closing strife they stood,
 And thrice the Saxon blade drank blood;
 No stinted draught, no scanty tide,
 The gushing flood the tartans dyed.
- (g) Who hath not seen thee oft amid thy store ?
 Sometimes whoever seeks abroad may find
 Thee sitting careless on a granary floor,
 Thy hair soft-lifted by the winnowing wind;
 Or on a half-reap'd furrow sound asleep,
 Drows'd with the fume of poppies, while thy hook
 Spares the next swath and all its twined flowers.
- (h) And O, ye Fountains, Meadows, Hills, and Groves,
 Forbode not any severing of our loves !
 Yet in my heart of hearts I feel your might;
 I only have relinquish'd one delight
 To live beneath your more habitual sway ;
 I love the brooks which down their channels fret,
 Even more than when I tripped lightly as they.

2. *Either*, (a) Discuss, with reference to Scott, how far the limitation of fact is a handicap for the historical novelist.

Or, (e) Write a short essay on Scott's skill as a story-teller in prose and verse.

3. 'The simple Wordsworth, framor of a lay
 As soft as evening in his favourite May.' (BYRON.)

'Wordsworth is indisputably the most sublime of our poets since Milton.' (BRADLEY.)

With which of these views do you agree ? Give reasons for your answer.

4. 'Jane Austen sees life clearly but without bitterness. No artist was ever more objective,' Amplify and illustrate this statement.

e. Write a short essay on *one* of the following:—

(a) *Prometheus Unbound* as an experiment in giving dramatic form to conceptions too large for the theatre.

(b) Platonism in Shelley.

(c) Shelley as 'an ineffectual angel beating his wings in vain'.

6 *Either*, (a) Discuss the charge of sensuousness brought against Keats's poetry.

Or, (b) Discuss the importance of Keats's letters to the student of his poetry.

7. Write a note on *either* Lamb's prose style, or Lamb's humour.

8. 'A rhetorician of Byron's force counts for much in literature.' To what extent do you attribute Byron's popularity to this rhetorical gift ?

9. How far is it correct to describe the Romantic Revival as 'the Renaissance of Wonder'?

10. Write a critical appreciation of *two* of the following:—*Northanger Abbey*, *Beppo*, *Michael*, *Lamia*, *Alastor*, *Marmion*.

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 question, including at least one from *each* of the two groups (A and B). 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 work in which it occurs. Comment briefly on the ideas or style of the passages chosen as characteristic of the authors :<—

(a) ' O ye Sun and Moon.....O ye Stars.....Beasts and Cattle..... Children of Men.....bless ye the Lord, praise Him and magnify Him for ever 1' She suddenly stopped and murmured: ' But perhaps I don't quite know the Lord as yet. And probably too, half-unconscious rhapsody was a Fetichistic utterance in a Monotheistic setting; women whose chief companions are the forms and forces of out-door Nature retain in their souls far more of the Pagan fantasy of their remote forefathers than of the systematized religion taught their race at a later date.

(e) Such, poets, is your bride, the Muse ! young, gay,
Radiant, adorn'd outside ; a hidden ground
Of thought and of austerity within.

(c) It is the Night of the World, and still long till it be Day: we wander amid the glimmer of smoking ruins, and the Sun and the Stars of Heaven are as if blotted out for a season ; and two immeasurable Phantoms, HYPOCKISY and ATHEISM, with the Gowl, SENSUALITY, stalk abroad over the Earth, and call it theirs : well at ease are the Sleepers for whom Existence is a shallow Dream.

(d) Gone the fires of youth, the follies, furies curses, passionate tears,
Gone like fires and floods and earthquakes of the planet's
dawning years
Fires that shook me once, but now to silent ashes fall'n away.
Cold upon the dead volcano sleeps the gleam of dying day.

(e) I have now been married ten years. I know what it is to live entirely for and with what I love best on earth. I hold myself supremely blest—blest beyond what language can express ; because I am my husband's life as fully as he is mine.....All my confidence is bestowed on him, all his confidence is devoted to me; we are precisely suited in character—perfect concord is the result.

(f) At the meal we sit together :
Salve tibi. I must hear
Wise talk of the kind of weather,
Sort of season, time of year :
Not a plenteous cork-crop : scarcely
Dare we hope oak-galls I doubt:
What's the Latin name for 'parsley '?
What's the Greek name for Swine's Snout ?

(g) ' Well, you are a nice young 'coman for a musical party, you are,' said the boot-cleaner. ' Look at these here boots—eleven pair o'boots; and one shoe as belongs to number six, with the wooden leg. The eleven boots is

to be called at half-past eight and the shoe at nine. Who's number twenty-two, that's to put all the others out? No, no; reg'lar rotation, as Jack Ketch said, w'en he tied the men up.'

- (h) Now on the place of slaughter
Are cots and sheepfolds seen,
And rows of vines, and fields of wheat,
And apple-orchards green:
The swine crush the big acorns
That fall from Gome's oaks.
Upon the turf by the Fair Fount
The reaper's pottage smokes.

2. Name the authors of *all* the following works, and describe the contents of any *three* which you have read :—*The Shaving of Shagpat*; *Sesame and Lilies* ; *Lays of the Scottish-Cavaliers*; *Renaissance*; *Erewhon* ; *The Mill on the Floss* ; *Departmental Ditties* ; *The Little Minister*; *Sordello* ; *The Mystery of Edwin Drood*.

GROUP A.

3. Discuss Browning's dramatic monologues in general, touching on such topics as their form, prosody, and artistry, and select *one* for detailed treatment.

4. Give a comparative estimate of the merits and demerits of Macaulay and Carlyle as writers of history, and note the peculiar characteristics of their styles.

5. *Either*, (a) The circumstances of the early days of Dickens and Thackeray are said to have influenced them throughout their lives. Mention some instances from the works of these writers in which traces of autobiography may be found,

Or, (b) Compare the methods of Dickens and Thackeray in satire and caricature.

6. R. L. Stevenson appears as an essayist, a novelist, and a poet. Consider his work in each capacity, and say in which he seems to you to be most successful.

7. Is the modern neglect of Tennyson deserved? Suggest some reasons for a defence of his poetry and of the ideas which inspired it.

GROUP B.

8. Name the chief women writers (in prose and verse) of your period, and select *one* for special discussion.

9. Who are the 'Decadents'? Consider whether the title is just, and give some account of the chief writings of this group.

10. What does Matthew Arnold mean when he writes of 'Hellenism' 'Hebraism', 'Philistines', 'Barbarians'? Examine his critical teaching, and indicate which of his principles may still be considered sound.

11. Define the terms 'ballade', 'roundel or rondeau', 'triolet', 'villanelle'. Name the chief writers of this type of verse, discuss their work, and, if possible, quote *one* poem illustrating any of the types named.

12. What do the words 'regional', 'chronicle', 'period', 'psychological', 'mystery' mean when applied to novels? Give some examples of each type (naming the authors) within the period, and consider whether such classification is either necessary or useful.

LATIN LANGUAGE.

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

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' Explain and illustrate, with the aid of the outline map' provided, *either* the political condition of India north of the Krishna and the north-western frontier in the time of Pushyamitra Sunga; *or* the stages in the expansion of the Gupta empire down to the end of the reign of Ohandragupta II, Vikramaditya.

2' Give a clear account of the social and political institutions of the Indo'Aryans, as portrayed in the *Later Samhitas* and the *Brahmanas*. How Avould you fix the date of the epoch of the *Brahmanas* ?

3. Discuss the nature and extent of the mutual influence exercised by India and the countries of the Eastern Mediterranean in the period 300B.C.—AD. 200.

4. Outline the fortunes of the Andhra Satavahanas, and indicate their contributions to Indian culture.

5. Illustrate the statement that the republican form of government was one of the normal elements of Hindu political organization from the age of the Buddha down to the rule of the Guptas. How do you explain the disappearance of this form ?

6. Trace the stages in the decline and disappearance of the Gupta power, and critically examine the contributory factors.

7. 'The dominance of the Rajput clans is, at first sight, the conspicuous fact differentiating the medieval from the ancient period in the history of Northern India.'

' The apparently sudden introduction of the Rajput states on the stage during the eighth and ninth centuries is in part an illusion.'

Explain and reconcile the above -statements, and indicate the probable origin of the Rajputs.

8. Describe the struggle for imperial dominion in Northern India between the Kashtrakutas and the Gurjara Pratiharas, and point out the reaction that it produced.

9. Describe the extension of Indian cultural elements, both Buddhist and Brahmanical, into Burma and the other countries of the Indo-Chinese Peninsula in the period of your study

10. Estimate the part played by Sultan Mahmud of Ghazni in the establishment of Muslim rule in India. Explain how his Indian achievement was but a small portion of his activity.

11 Outline the main stages in the expansion of the Chola power of Tanjore in the tenth and eleventh centuries A.D. and indicate their contribution to art and administration.

12. Sketch in outline the history of Buddhism in India from the time of Kanishka down to the period of the Palas. To what extent was it absorbed in Neo-Hinduism?

INDIAN 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. *Either, (a) Mark, on the outline-map provided, the important rivets and internal mountain chains, with the boundaries of each of Akbar's conquests, and locate the capitals of four of them.*

Or, (b) Trace, on the outline map provided, the important rivers and internal mountain chains, with the boundaries of the Bahmani and Vijaynagar empires, and locate six of their chief towns.

2. Sketch the system of administration under the early Delhi Sultanate and describe the condition of the people.

3. In the reign of Firuz Shah Tughluq, 'the ryots grew rich and were contented.....The whole realm of Delhi was blessed with the bounties of God'(AFiF). By what means was this state of things effected? Why then did the Delhi empire break up only ten years after the death of Firuz Shah?

4. Trace the course of Sher Shah's struggle with Itumayun for the empire of Delhi, and account for the success of the former. To what use did Sher Shah put the supreme power he had gained?

5. Write a short study of the growth of Indian industries and fine arts under royal patronage in Akbar's time. In what way, broadly speaking, did North Indian culture of the Mughal period differ from that of the pre-Mughal times?

6. Trace clearly Malik Ambar's relations with the other Powers (both war and diplomacy) at different stages of his career. Explain how he was able to hold his own against the Mughals.

7. Describe the relations of the Mughal Government with the North-West Frontier tribes from 1575 to 1680.

8. What were the important effects of Aurangzib's second viceroyalty of the Deccan on (a) his own career, and (b) the history of the Deccan ? Follow his relations with Shivaji down to 1670.

9. Describe the system of public taxation under the Mughal Emperors—its principles, the sources of revenue, and its actual effect on the economic life of the people.

10. Account for the break-up of the Mughal empire under Muhammad Shah, illustrating your views by a detailed examination of the local history *either* of the Punjab *or* of the Deccan.

11. Trace the revival of the Maratha power under the Peshwas (down to 1748), and show how Shivaji's civil and military administration differed from that of the Peshwa period.

INDIAN HISTORY.

PERIOD 3.

Time allowed—3 hours.

Maximum **marks—100.**

(Candidates should attempt *one* question from PART A and *four* from PART B. All the questions carry equal marks.)

PART A.

1. Mark the outline-map provided so as to show the political divisions of India in 1795 A.D.

2. On the outline-map provided, illustrate the growth of the East India Company's dominions in North India, marking each major territorial addition, and giving its name, the name of the previous owner, and the date of acquisition by the Company.

PART B.

3. Describe the aims and activities of Dupleix. Why did he fail ?

4. Write a critical estimate of Warren Hastings as a statesman.

5. 'Nature fitted Hyder to build an empire and his son to lose it.' Comment on this statement with reference to the facts of Mysore history.

6. Examine the causes that led to the failure of the Marathas in their struggles with the East India Company.

7. Describe the social conditions in India about the year 1828 A.D.

8. How did Russian expansion in Central Asia affect the foreign policy of British India ?

9. What were Dalhousie's political and administrative aims ? How far did they succeed ?

10. How has the question of the defence of India influenced the history of the British dominions in Africa ?

11. Trace the landmarks in the history of education in British India.

12. Sketch the development of the central legislature of British India down to 1920 A.D.

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. *Either, (a)* Illustrate on the outline-map' provided the progress of the Reformation in Germany by the year 1540. How far was this position leversed by the Counter-Reformation ?

Or, (b) Mark on the outline-map' provided the effect of the chief provisions of the Treaty of Utrecht. To what extent did they provide the causes for future conflict ?

2. Compare the parts played by Florence and Milan in Italian affairs during the period 1492-1530.

3. What were the positive achievements of the Emperor Charles V ?

4'. How did the possessions of Spain in the New World affect the internal development of Spain ?

5. What were the distinctive results of the Reformation in France ?

6. Account for the success of the Dutch Republic at home and abroad in the seventeenth century.

7. Examine the claim that Richelieu was the architect of Louis XIV's greatness.

8. To what extent was British foreign policy in the seventeenth century governed by economic considerations ?

9. Explain the different policies of the European states in relation to Turkey up to the Treaty of Karlowitz.

10. What were the most important of the reforms introduced by Peter the Great in Russia ?

11. How far were the main Hues of Prussian policy and organization laid down by Frederick William, the Great Elector ?

12. To what extent was the downfall of Sweden to be attributed to the character and policy of Charles XII?

MODERN EUROPEAN HISTORY.

PERIOD 2.

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. On the outline-map' provided—

Either, (a) Indicate the political boundaries of Europe in 1810, showing the extent of Napoleon's power'

Or, (b) Indicate the political boundaries of Europe as settled by the Peace Treaties of 1919.

Add to your map the following :—the Rhine, the Elbe, the Vistula, Warsaw, Prague, Belgrade.

2. What do you understand by the term 'enlightened despot'? Illustrate your answer by reference to any such personage in your period.

3. Why did the Constitution of 1791 prove a failure? Do you think that Mirabeau could have saved the situation if he had lived?

4. Discuss the influence of sea-power upon the Anglo-French struggle from 1793 to 1815.

5. How far would you agree that the Congress of Verona proved a turning point in European history?

6. Why was the July monarchy overthrown, and why could it not be restored?

7. Trace the events leading up to the 'Ausgleich' of 1867, and estimate its effect upon the destiny of the Austrian empire.

8. 'We Germans fear God and nothing else in the world' (BISMARCK). Discuss, with reference to Bismarck's foreign policy after 1871.

9. Explain the circumstances of the annexation of Bosnia and Herzegovina in 1908, and discuss its effect upon the European situation.

10. From the basis of a study of Italian ambitions' explain Italy's attitude at the Peace Conference and her dissatisfaction with the Peace Treaty.

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)* Give an account of the foreign policy of Henry VII, indicating on the outline-map' provided the places you refer to.

Or, (b) Show on the outline-map' provided what happened to the Spanish Armada in 1588, and discuss the causes of its defeat.

2. Discuss the attitude of Henry VIII to the Protestant Reformation'

3. Mary Tudor was a fanatic, and Elizabeth was clearheaded and cool. Examine the grounds for this estimate of the two queens.

4. Explain the importance of the rise of the office of Justice of the Peace in the Tudor period'

5. Expound the opinions of James I regarding the kingship, and show how the British people reacted to them.

C. Describe the part played in English history by George Villiers, first Duke of Buckingham.

7. Give a sketch of the social and economic life of England in the Stuart period.

8. Explain the aims of Oliver Cromwell, and discuss how far he succeeded in achieving them.

9. Give an account of the administration of England under the *Cabal*.

10. Why was William of Orange called to the throne of England, and what agreements were made between him and the nation?

11. How far was freedom of conscience attained in England by the end of the seventeenth century? Trace the development in this respect from the time of Henry VII.

BRITISH HISTORY,

PERIOD 2.

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt one **question** in Part A, and four in Part B. All the questions carry **equal** marks.)

PART A.

1. Mark the outline-map provided so as to show the political geography of Europe during the war of the Austrian Succession and the important battlefields.

2. On the outline-map provided mark the empire of Napoleon, indicating the territories directly under his rule, the dependent states, the allies, the independent states, and the chief battlefields.

PART B.

3. Why did the Jacobite revolts fail?

4. How did the character of the first two Georges affect the constitution of England?

5. Describe how Britain acquired Canada.

6. Discuss the constitutional issue between Britain and her North American colonies.

7. Explain the constitutional aims of George III, and estimate to what extent they were realized.

8. What were the social effects of the Agricultural Revolution?

9. Estimate the success of Pitt the Younger as a peace minister.

10. Trace the attitude of the British people towards the French Revolution at its various stages.

11. How did Britain counteract the 'continental system'?

12. Describe, with a diagram, *either* (a) the battle of Trafalgar, *or* (b) the battle of Waterloo.

BRITISH HISTORY.

 PERIOD 8.

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' of the World provided mark and name the British Crown Colonies, mandates, and spheres of influence; and insert the dates when they first became connected with the British Empire in those cases which fall within the period under study.

2. Compare the successes and the failures of the peace settlement after the Napoleonic Wars with those of the peace settlement after the Great War.

3. What main principles animated the Duke of Wellington after the close of his military career, and how, in your opinion, do they account for his actions during his long political life ?

4. The unreformed House of Commons prior to 1832 is impossible to justify according to modern ideas, and yet it was warmly defended by arguments which, to those who used them, appeared highly convincing. What were those arguments ?

5. What were the demands of the Chartists, and to what extent, and when have they since been conceded ?

6. What do you understand by the term ' the Manchester School' ? To what extent were its two great champions in advance of their contemporaries and on what grounds have they been criticized ?

7. Is consistency the greatest virtue of a statesman ? Amplify your answer, with particular reference to the most important decisions of Sir Robert Peel and Gladstone.

8. ' Up spake Home Secretary Grey,
 " I wish old Palmy were away. "
 " Yes, turn him out, " they all did say,
 For he's the People's darling.'

On what grounds was this popular view of Lord Palmerston based ?

9. Trace the growth of ' Tory democracy ', and describe the considerations upon which its power is still based.

10. Outline the relations between Great Britain and France between 1830 and the establishment of the ' Entente Cordiale '

11. ' Edward VII after his death is stronger than I who am alive ' (KAISER WILHELM in 1914). Why do you think he said that ?

12. Describe the differences which prevail in the relative powers of the ' centre ' and the ' provinces ' in the Commonwealth of Australia, the Dominion of Canada, and the Union of South Africa respectively ; and show how these differences are accounted for by the historical evolution of each since 1815.

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. Explain the basis of the medieval theory of 'just price' and compare it with the objects of price-control in our own time.

2. Discuss the statement that economics is a study rather of tendencies than of laws and principles.

Explain how it determines the nature of economics as a science and the kind of mental equipment which an economist requires.

3. Explain the significance of 'long-period conditions' in Marshall's theory of value, and discuss how far the analysis is applicable to the conditions of real life.

4. What do you understand by the term 'economic welfare'?

Explain how far it depends on efficient production and how far on wise consumption.

5. Describe the different kinds of 'surpluses' analysed by economists. To what physical, psychological, and social causes are they attributed?

6. Explain how far, and in what circumstances, a monopolistic control of an industry may be more desirable in the public interest than a competitive organization.

7. How does expert speculation help production and consumption?

What are the conditions which enable a commodity to have an organized market which makes speculation possible?

8. Analyse the constituent elements of profits.

What place would you ascribe to luck and chance in the factors governing the profits of a trade?

9. Explain the circumstances in which the transfer of wealth from the rich to the poor will increase the efficiency of labour.

Is it likely to increase wages invariably?

10. Discuss the case for a 'managed' currency system. Can you manage 'a currency system based on gold'?

Will a 'managed' currency guarantee the stability of prices?

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. Describe briefly the existing currency system of India. How has it served the country during the present trade depression? What important factor has helped it?

2. How far do you believe that the present difficulties of the Indian railways are due to the competition of roads? Do you think that the country has a larger road-system than she needs?

How do these difficulties of the railways affect the finances of the central and provincial governments?

3. What results would you expect on world economy and on the national economy of the United States of America if synthetic gold could be manufactured at a constant cost of Rs. 15 per tola?

4. Describe briefly the methods which have been adopted by various countries to force international trade into channels believed to be most advantageous for themselves.

Would you abandon or restate the theory of comparative costs on account of these developments?

5. Compare the objects and methods of the Meston Award with those of the Niemeyer Award.

Can you suggest some arrangement which would dispense with the necessity of such measures?

6. State the arguments for, and the practical difficulties of, buying out the landlords in the permanently settled provinces.

What other intermediate acquisitive interests in land are likely to grow up if not controlled?

7. Give a brief account of the causes which are believed to be responsible for the present economic depression in the world. Which of these have affected India most?

8. Describe either any one big industry or two cottage industries awaiting development in your province or state.

Why has the development been held up so far?

9. Give a short account of the Reserve Bank of India. What other activities apart from the control of the money market have been imposed on it?

10. Examine the standard of living of the peasant in your province or state. Describe how you would try to improve it with a view to increasing efficiency and welfare.

ECONOMIC HISTORY,

Time allowed—3 hours.

Maximum Marks 100.

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

SECTION I.

1. Trace the development of the financial relations between the Central Government and the Provinces in India since 3870. What changes in the financial relations are now contemplated under the Government of India Act of 1935? 20
2. Review the development of railway transport in India since the middle of the nineteenth century, and indicate the changes in railway administration and policy that have been effected from time to time during the last thirty years. 15
3. Indicate the chief landmarks in the fiscal policy of the Government of India, laying particular stress on the part played by (a) Discriminating Protection and (b) Imperial Preference. 15
4. Compare the position of the owner-cultivator under the Moghul rule with his position to-day, from the stand-points of (a) the character and security of tenure, and (b) agricultural prosperity. 15
5. Review historically the development of the problem of Central Banking in India since 1835 to the present day. 15
6. Give a brief historical account of the co-operative movement in India—How would you account for the partial failure of the movement in recent years? 15

SECTION II.

7. Discuss the consequences and ramifications of the policy of *laissez faire* adopted by England in the eighteenth and nineteenth centuries. In what ways has this policy been modified by her in recent decades, and why? 20
8. Compare and contrast the industrial organization of medieval England with that of modern England. Was the struggle between capital and labour of the same kind, or as acute, then as now? JQ
9. Describe the economic background of the teachings of (a) Adam Smith and (b) Malthus. How far were they able to influence the shaping of contemporary events and policies? 15
10. Give a succinct comparative account of the treatment of the problem of poverty in England in the seventeenth century and in the period following the Napoleonic wars. 15
11. Analyse the mother country's attitude towards her colonies and dominions in the eighteenth and nineteenth centuries, contrasting the old and the new colonial policy. 15
12. Write notes on any three of the following :—
 - (a) Peel's Bank Act.
 - (e) The Tullian Husbandry.
 - (c) The Bullionists.
 - (d) The Boston 'Tea Party'.
 - (e) 'Less Eligibility'.

PUBLIC ECONOMICS.

Time allowed—3 hours.

Maximum marks—100.

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

1. Critically compare and contrast the potency of the Fascist doctrine of 'Nothing against the State ; nothing outside the State ; everything for the State' with the philosophical doctrines of the classical school of economists.

2. Consider whether it is correct to regard the 'principle of minimum sacrifice ' as the true canon of taxation.

Argue in the light of recent economic analysis.

3. Discuss the causes that have led the ' income-tax ' to occupy such an important place in the revenue systems of most modern States, except that of France.

Indicate its importance and position in the Indian revenue system.

4. Give the broad outlines of the ' Layton scheme ' for improving the financial resources of the provinces.

To what extent have the recommendations been accepted or modified by Parliamentary authority ?

5. Clearly distinguish between (a) primary poverty and (b) secondary poverty.

Is it the function of the State to assuage either the one or the other, or both, or neither ? Give reasons for your conclusions.

If your answer is in the affirmative, then draw up a scheme either of relief or of assistance which the State may be able to put into operation *within a year or so*.

6. ' In America the employer sweats his machine, not his hands, which is the true science of production.' In the light of this statement, discuss the feasibility of the Government instituting minimum-wage fixing machinery in our industrial centres.

7. ' No housing evils are necessary ; none need be tolerated. Where they exist they are always a reflection upon the intelligence, right-mindedness, and moral tone of the community.' Comment on this statement.

Mention *financial* means and methods by which the housing of the poor in our cities may be improved.

8. Indicate and discuss the respective merits of the sources of revenue of municipalities and corporations in your province or state.

Have you any suggestions to offer to improve the revenue and better the incidence of rates, taxes, and fees of your municipalities ?

9. ' Improvement in marketing facilities is a necessary step in the amelioration of the condition of the peasants of India.' Elucidate this statement.

Indicate the steps taken in this direction by the central and provincial governments.

POLITICAL THEORY.

Time allowed—3 hours.

Maximum marks—100.

Candidates should attempt Question 1 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) ' Perfect liberty is equivalent to the total absence of government.'

(b) ' Legislation according to the will of the people is impossible because the people has no will.'

(c) ' Democracy is only suitable in poor and small states.'

(d) ' The Benthamites forged the arm most needed by the Socialists.'

'(e) ' The cure for the ills of democracy is more democracy.'

'(f) (f) ' The power of the State over the individual was greater in ancient than in modern times.'

(g) ' Citizens we may define as those who participate in judicial and deliberative office. This is perhaps the definition of a citizen which is most appropriate to all who are so called.'

(h) ' All violent policy, as it is contrary to the natural and experienced course of human affairs, defeats itself.'

2. How far is it true to say that Aristotle's political views were based on ' trust in the people ' ?

3. ' Law is the Command of the Sovereign.' ' Law is the expression of the General Will.' ' Law is Organized Custom.' Comment on these views as to the nature of law, and estimate the amount of truth contained in each.

4. Discuss the doctrine of ' self-determination ' in its relation to the theory of sovereignty.

5. Give an account of the contributions to political science of any two, of the following writers : — (a) John Stuart Mill, (b) Auguste Comte, (c) Herbert Spencer, (d) Bodin, (e) Montesquieu.

6. ' The philosophers of France, in their eagerness to escape what they deemed a superstition of priests, flung themselves headlong into a superstition of lawyers.' Comment.

7. Explain fully what is meant by the terms ' mechanical ' and ' organic ' as applied to Society and the State. Which is the more pertinent and illuminating, and why ?

8. ' The real question has ceased to be Collectivism versus Individualism..., it is now Collectivism with Equality versus Collectivism without Equality.' Comment.

9. ' It is with nations as with individuals. In tranquil moods and peaceable times we are practical, and facts and common sense only are in fashion. But let the winds of passion swell, and straightway men begin to generalize.' Comment, with especial reference to modern times.

10. Discuss the question of the appropriate methods of inquiry into political science, giving incidentally the views of any well-known English writers on this subject,

POLITICAL ORGANIZATION

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt any five questions. All the questions carry equal marks.)

1. 'The great overruling power in every free community.' Discuss this description of the Legislature as compared with the Executive, with especial reference to modern conditions.
2. Do you consider that it is possible or desirable to replace the territorial constituency, as it exists in most states, by an occupational one?
3. How would you explain the rise of National Socialism in Germany? Describe the salient characteristics of the system of government now in force in that country.
4. Write a short essay comparing the aims and methods of constitution-makers in the nineteenth and twentieth centuries respectively.
5. 'The League of Nations lacks all sovereign powers,' Discuss this statement, with especial reference to the Italo-Abyssinian conflict, and suggest any solution of the difficulty that may occur to you.
6. State the likenesses and differences between the federal system of the Australian Commonwealth and that of the American Union.
7. What is meant by the term 'rule of law'? Show how it operates in British states. Do you think it is endangered by the growth of Socialism?
8. What is the importance of the bi-cameral legislative system in the modern world?
9. How far can Local Self-Government in India be regarded as successful in actual practice?
10. Do you think that India will ever have to cope with a revolution of either the -Fascist or the Communist type?

LAW.

PAPER 1.

Time allowed—3 hours.

Maximum Marks—100.

(Candidate should attempt Questions 1, 2, and 4, and not more than two of the remaining questions. The number of marks carried by each question is indicated at the end of the question.)

1. 'The unsoundness of Austin's view as to the difference between *crimes* and *civil injuries* becomes apparent when he, in suggesting the *classification of law*, proposes to deal with crime under the heading of "*Sanctioning Rights*"; whilst agreeing that crimes are breaches of *absolute duties* in respect of which, of course, there are no absolute rights. Explain this statement, and in explaining this bring out the meaning of the italicized phrases.

2. (a) It has been said that Salmond makes sovereignty in jurisprudence equivalent to omnipotence in theology. What is Salmond's conception of sovereignty? Do you agree with this criticism of Salmond?

(b) What is the contribution made by Sir Henry Summer Maine to the elucidation of the idea of sovereignty?

(c) Discuss briefly the nature of the sovereignty of an Indian state. 20

3. Define precisely the meaning of *status* and give illustrations. 20

4. What exactly is the meaning of the expression 'ministerial responsibility' in constitutional law? In this connexion explain also the meaning of the phrase 'the collective responsibility of ministers'. 20

5. Write a short note on the civil and criminal liability of a Governor in (a) the Dominions, (b) the Colonies, and (c) India. Refer to any leading cases on the subject that you remember. 20

6. Discuss whether it is open to a Dominion legislature and to the Indian legislature to abolish appeals to His Majesty in Council. Refer to any cases that you may remember. 20

7. A federal constitution being in essence a constitution of enumerated powers, does the new Indian constitution providing for the establishment of a federation answer that test? Discuss in this connexion the doctrine of concurrent powers. 20

8. A brings an action for damages against B for personal injuries caused by B's negligence in driving a motor car so as to bring it into collision with A's car. A is seventy years of age and was until the accident a man of ordinary health, and might in the ordinary course be expected to live at least eight or nine years. In asking the Court to assess damages, can A ask it to take into consideration that his normal expectation of life had been shortened? In answering this question refer to the recent development of law in England on the subject. 20

9. State the law with regard to actionable conspiracy, with special reference to trade union cases in England. Has the same law been applied? in India?

10. A Government servant belonging to one of the All-India services is dismissed without being informed of the reasons for his dismissal, and without being given an opportunity to defend himself. He then brings a suit for damages against the Secretary of State, who pleads that the plaintiff, being a servant of the Crown, held office during the pleasure of the Crown and cannot therefore bring the suit. How would you decide the case? Give reasons. 20

LAW.

PAPER 2.

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt Questions 1 and 5, 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. A, a minor daughter of a Mohammedan, is married to B, a minor son of another Mohammedan. At the time of the marriage the father of B executes an agreement in favour of A's father promising that he will pay A every month Rs. 500 for her personal expenses. On attaining majority A

asks her father-in-law to pay her the agreed sum, which he declines to pay. A then brings suit against her father-in-law for the recovery of the money which he had, under the agreement with her father, agreed to pay her. Is A's suit maintainable? If so, why?

20

2. What is a wagering contract? How does it differ from a 'forward' contract? Give illustrations.

20

3. A sells a cow to B, whom he knows to be a farmer, and likely to put the cow in a herd, with a warranty that she is free from foot-and-mouth disease. The cow in fact has the disease and communicates it to other cows with which she is placed, and several of the cows die. Can B successfully sue A for damages? If so, what is the extent of his loss which B can ask A to make good? Give reasons for your answer.

20

4. Distinguish between a void and a voidable contract. Is a contract entered into by a minor void or voidable?

Suppose a minor falsely and fraudulently represents to a money-lender that he is major and the latter advances him a loan. The creditor then sues the 'minor', after he comes of age, who pleads that he was minor at the time of the loan. How would you decide the case?

20

e. 'When the robber has made his escape, the principle of self-defence would not extend to killing him if met with on a subsequent day. If, however, the property were found in his possession, the right of defence would revive for the purpose of its recovery.' Discuss this proposition and state whether it has been judicially accepted in India. Give your own view as to its soundness.

20

6. A knocks his wife down, puts one of his knees on her chest, and strikes her two or three violent blows on the face with closed fist, producing extravasation of blood on the brain, with the result that she dies soon after. Is A guilty of culpable homicide or murder? Give reasons for your answer.

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7. (a) A finds a rupee on the high road, not knowing to whom the rupee belongs. A picks up the rupee. What, if any, offence has A committed?

(b) A finds a valuable watch, not knowing to whom it belongs. A sells it immediately without attempting to discover the owner. What, if any, is the offence? State the reasons for your answer.

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8. Give, in your own words, the basic principles of the theory of relevancy embodied in the Indian Evidence Act, adding suitable illustrations to every point that you make.

20

9. State the nature and extent of the presumption as to ancient documents, and discuss whether that presumption can apply also to copies.

20

10. (a) In a murder case, the accused says to the police, 'I killed the deceased and buried his dead body in a nullah.' The police take him to that nullah and the accused digs up the dead body. How far is this confession admissible in evidence against the accused?

(b) In a civil case where it is necessary for the plaintiff to prove a pedigree, the plaintiff produces a Panda, who brings into court and speaks to his book containing the names and signatures of his clients whom he serves from time to time as they come to perform certain religious rites. How far is such evidence admissible in proof of the pedigree, and why?

(c) In a certain case it is necessary to prove that A is the son of B and C and was born in lawful wedlock. B, the reputed father, goes into the witness-box and swears that he never had access to C his wife for several years before the birth of A. Is this evidence admissible in (i) England, and (ii) India?

(d) In a suit for libel, brought by plaintiff who occupies a prominent position in the public life of the country, the defendant offers evidence to prove that thirty years prior to the suit the plaintiff was convicted of the offence of adultery and sentenced to pay a fine. Is this evidence admissible? Give reasons.

20

MORAL PHILOSOPHY.

Time allowed—3 hours.

Maximum Marks—100.

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

1. Show how the idea of ' norm ' is different in the descriptive and normative sciences, and bring out the special character of Ethics as a science.
2. It is a fallacy to say that, because a steamship consumes coal, therefore the consumption of coal is the purpose of its voyage. Is this fallacy illustrated in connexion with any outstanding theory of Ethics ?
3. Show the relation between Law and Ethics, commenting in the course of your answer on the statement that ' law may be defined as the *ethical minimum* '.
4. Show the implications of the totalitarian theory of the State.
5. Give a general criticism of the Kantian theory of Ethics.
6. It has been said that the chief defect of society at the present time is the over-valuation of wealth and not its wrong distribution. Attempt to show the attitude of Ethics to this statement as compared with the attitude of Economics.
7. Estimate the effect of the theory of ' behaviourism ' on morals.
8. ' We must forget the self, but never lose it.' Explain the ethical theory which might be based on this statement.
9. ' The problem of human conduct is to find a sufficient motive.' Comment on this.
10. Can punishment be justified from the deterministic point of view ?

METAPHYSICS.

Time allowed—3 Hours.

Maximum Marks—100.

(All the questions carry **equal** marks.)

SECTION A.

(Answer the whole of this section.)

1. Estimate the influence of either the Eleatic School on Greek thought, or Locke on British thought.
2. Discuss any two of the following quotations and bring out their metaphysical implications :—
 - (a) ' The many are seen but not known, and the ideas are known but not seen.'
 - (b) ' I never can catch myself without a perception and never can observe anything but the perception.'

(c) 'When we talk of divers spaces we mean only parts of one and the same space.'

(d) 'He who installs himself in becoming sees in duration the very life of things, the fundamental reality'.

SECTION B.

(Answer any *three* questions from this section.)

3. 'God has nothing of the already made. He is unceasing life, action, freedom. Creation, so conceived, is not a mystery; we experience it ourselves when we act freely' (BERGSON). Discuss.

4. 'Any form of the causal principle in which it is true is useless, and any form in which it is useful is untrue' (TAYLOR). Set forth and examine the attitude of Rationalism towards Causality.

5. 'Without the presupposition of objects as things in themselves it is not possible to enter the Kantian system, though *with* them it is quite impossible to remain in it' (JACOBI). Explain and examine this criticism.

6. 'Science thinks that she is concerned with a real world which persists independently of experience' (BAIPCUR). Does the study of nature require a metaphysical basis? If so, what metaphysic would serve it best?

7. 'The whole conceptual world is inserted between sensations' (VAIHINGEE). Examine this dictum with special reference to the concept of Matter.

8. 'To say that the higher emerges, but is not mechanically caused by the lower, is to admit that evolution is not an ultimate explanatory principle at all' (LEIGHTON). Examine the metaphysical status of Novelty.

LOGIC.

Time allowed—3 hours.

Maximum Marks—100.

(Candidates should attempt Questions 7 and 2, and not more than *three* of the remaining questions. All the questions carry equal marks.)

1' What do you understand to be the standpoint of modern logic, as contrasted with the earlier standpoints?

2. What is meant and implied by saying (a) that our judgment sustains the universe, and (a) that in judgment and inference we make or construct reality?

3. Explain fully and by means of examples the use of the negative instance in inductive investigation.

4' What objections are there to employing symbols' such as the sign of equality, to represent the relation between the subject and the predicate of a categorical judgment?

5. What is the general nature of probability? Discuss the use of the calculations of probability.

6. Most of the difficulties and inconsistencies in Mill's treatment of logic arise from 'a persistent attempt to found his exposition of scientific method on the theory of the origin of knowledge which is known as "empiricism"'

Mention some of these difficulties and inconsistencies, and discuss the truth of the above statement with reference to them.

7. What is Hegel's logic of opposites ? Discuss its rationality.

8. Why is the statement that 'there is no other standard of truth than the momentary judgment of the individual' the *reductio ad absurdum* of scepticism ?

9. Show how the principle of identity in difference is related to the conception of knowledge as systematic.

10. 'Science for the past is a description ; for the future a belief ; it does not show the necessity of any sequence of phenomena.' Discuss.

11. Examine the following argument ;—

'If Logic takes not merely the form but the matter of thought into account it must either consider all the objects of thought without distinction or make a selection of some alone. The former alternative is impossible, for if it were required that Logic should comprise a full discussion of all cogitable objects, i.e., if it must draw within its sphere all other sciences, and thus constitute itself in fact the one universal science, every one at once perceives the absurdity of the requisition and the impossibility of its fulfilment. But is the second alternative more reasonable ? Can it be proposed to Logic to take cognizance of certain objects of thought to the exclusion of others ? As none but an arbitrary answer can be given to this interrogation the absurdity of this alternative is no less manifest than the other. The particular objects, or matter of thought, being thus excluded, the form of human thought alone remains as the object-matter of our science/

INDIAN PHILOSOPHY.

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. The Upanisads are generally regarded as part and parcel of the Vedas. How far is this view philosophically justifiable ? What anticipations, if any, of the Upanisadic thought do you find in the Vedas ?

2. 'The essence of philosophy is to be independent of mere authority. The emphasis on *Siddhant Pramāṇya* in Indian philosophy detracts from its philosophic value.' Examine critically this statement.

3. How do you account for the importance of the concept of *Moksha* in Indian philosophy generally ? Give a comparative account of the concept as found in Śaṅkara and Ramanuja, and explain which of these accounts is more in harmony with the Upanisadic teaching.

4. 'In the Gita ethical universalism is at war with *Vairagya Dharma*.' Is this view justifiable ?

5. Give an account of the Jaina theory of *Anekāntavāda*, and bring out its bearing on the Jaina metaphysics generally.

6. Explain :—'The theory (of Buddhism) wears a semblance to the Advaita but is not that absolutism which is the pivot of the Vedānta philosophy.'

7. Examine the claim that the Sāṅkhya system was an anticipation of the modern theory of evolution.

8. Discuss the philosophical value of *Purva Mimāṃsā*, and bring out its significance in the history of Indian thought.

D. Does the category of Cause play the same important part in Indian schools of philosophy as it does in European philosophy? Illustrate your answer with reference to the treatment of Cause in any two systems of Indian philosophy.

10. Explain clearly the Advaitic distinction between the *Vyavahdrika* and the *Paramdrthika*. What metaphysical value are you prepared to attach to this distinction? Do you agree with the view that it is ethically suicidal?

LOWER MATHEMATICS (PURE AND APPLIED).

PAPER 1 (PURE).

Time allowed—3 hours.

Maximum Marks—100.

(Candidate' should attempt Question's 1 and 5, 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. Criticize the following statements :

(i) $\sum x^n$ is convergent if $x < 1$.

(ii) If $\sum a_r$ is convergent, then $\sum a_r \cos rx$ is uniformly convergent.

Show that if $\sum a_n n^t$ is convergent or oscillates finitely, then $\sum a_n n^t$ is Convergent for $t > s$. 18

2. (i) If $\cos A - \tan B$, $\cos B - \tan 0$, $\cos C - \tan A$, show that $\sin A - \sin B - \sin C - 2 \sin 18^\circ$.

(ii) If $x + y + z = 0$, show that

$$s_2 s_5 - c s_3 s_4$$

Where c is a rational number and s_m denotes

$$x^m + y^m + z^m.$$

3. In the sequence $u_0, u_1, u_2, \dots, U_0 = 0, u_1 = 1$, and each term after U_1 is k times the sum of the preceding two terms. If K is a sufficiently large positive integer, show that u_n is the nearest integer to 16

$$\frac{1}{\sqrt{\{k(k+4)\}}} \left(\frac{k + \sqrt{\{k(k+4)\}}}{2} \right)^n.$$

16

4. (i) Evaluate

$$\begin{vmatrix} 1 & 2 & 3 & 4 \\ 2 & 3 & 4 & 1 \\ 3 & 4 & 1 & 2 \\ 4 & 1 & 2 & 3 \end{vmatrix}$$

(ii) Show that

$$\sum_{n=1}^{\infty} \frac{1}{n^2 (n+1)^2} = \frac{\pi^2}{3} - 3.$$

16

e. Find the coordinates of the point at which the circle of curvature of the parabola $y^2 = 4x$ at the point $(t^2, 2t)$ meets the curve again.

The circles of curvature of a fixed parabola at the extremities of a focal chord meet the parabola again at H and K . Prove that HK passes through a fixed point.

18

6. (i) Prove that if $\Phi(x, y, z)$ is a homogeneous function of x, y, z of the n th degree, then

$$\left(x \frac{\partial}{\partial x} + y \frac{\partial}{\partial y} + z \frac{\partial}{\partial z} \right) \phi = n\phi.$$

Distinguish between

$$\left(x \frac{\partial}{\partial x} + y \frac{\partial}{\partial y} + z \frac{\partial}{\partial z} \right) \left(x \frac{\partial}{\partial x} + y \frac{\partial}{\partial y} + z \frac{\partial}{\partial z} \right) \phi$$

and

$$\left(x^2 \frac{\partial^2}{\partial x^2} + \dots + 2yz \frac{\partial^2}{\partial y \partial z} + \dots \right) \phi.$$

(ii) By making the transformation from x, y, z to ξ, η, ζ by the relations

$$\xi = \frac{x}{z}, \quad \eta = \frac{y}{z}, \quad \zeta = z,$$

prove the converse of the above, viz., if

$$\left(x \frac{\partial}{\partial x} + y \frac{\partial}{\partial y} + z \frac{\partial}{\partial z} \right) \phi = n\phi,$$

then Φ is homogeneous and of the n th degree in x, y, z .

16

7. (i) Find a value of n such that

$$e - \left(1 + \frac{1}{1!} + \frac{1}{2!} + \dots + \frac{1}{n!} \right) < 10^{-16}.$$

(ii) The sides of a triangle are observed to be $a = 5$, $b = 4$, $c = 6$, but it is known that there is a small error in the measurement of c . Examine which angle can be determined with the greatest accuracy.

16

8. Define the definite integral as the limit of a sum.

If $x > 1$, show that the absolute value of

$$\frac{\pi}{4} - x - \sum_{m=1}^{m=[\sqrt{x}]} \sqrt{x-m^2}$$

is less than K/x where K is independent of x ; here $[y]$ denotes the greatest integer contained in y .

16

9. Show that the maximum and minimum values of

$$r^2 = x^2 + y^2 + z^2,$$

subject to

$$(x^2 + y^2 + z^2)^2 = a^2 x^2 + b^2 y^2 + c^2 z^2$$

and

$$lx + my + nz = 0,$$

are given by

$$\frac{l^2}{a^2 - r^2} + \frac{m^2}{b^2 - r^2} + \frac{n^2}{c^2 - r^2} = 0.$$

16

10. Let four points R_1, R_2, R_3, R_4 be specified by the four vectors r_1, r_2, r_3, r_4 radiating out from the point O . Construct the three vectors

$$a = r_2 - r_1, \quad b = r_3 - r_1, \quad c = r_4 - r_1,$$

and show that the distance of the point R_4 from the plane

$$R_1 R_2 R_3 \text{ equals } \frac{c' \cdot c}{\sqrt{(c' \cdot c')}}, \text{ where } c' = a \times b.$$

Show, moreover, that

$$\frac{c' \cdot c}{\sqrt{\{(b' + c') \cdot (b' + c')\}}},$$

where $b = C \times a$, represents the shortest distance between the lines $R_1 R_2$ and $R_3 R_4$. 16

11. A hexagonal prism is 1½ inches high, and the sides of the base are ½ inch long. It stands upright on the horizontal plane, 1/8 inch in front of the vertical plane, and with its nearest face making an angle of 30° with it. Draw the plan and elevation. 16

LOWER MATHEMATICS (PURE AND APPLIED).

PAPER 2 (APPLIED).

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. What do you understand by a *conservative* system of forces? If a particle moves in a plane, under a conservative system of forces, show that the sum of its potential and kinetic energies is constant throughout the motion.

A hemisphere of mass M and radius a is free to slide with its base on a smooth horizontal table. A particle of mass m is placed on the hemisphere at an angular distance θ from the vertex; the surface of the hemisphere being smooth*. Show that when the particle is at an angular distance ϕ from the vertex,

$$a\phi^2 = 2g (\cos \alpha - \cos \theta) (M + m) / (M + m \sin^2 \theta);$$

And find also the velocity of the hemisphere at this instant, 16

2. Explain why raindrops, when they have fallen from a great height have practically a uniform velocity which is independent of the height of the cloud.

A particle is projected with velocity U vertically upwards under gravity in a medium whose resistance varies as the square of the velocity. Prove that the particle will return to the point of projection with a velocity

$$\frac{UV}{\sqrt{U^2 + V^2}}, \text{ where } F \text{ is the terminal velocity in the medium,} \quad + \gg$$

3. Explain what is meant by simple harmonic motion, and obtain an expression for the acceleration at any point of the motion in terms of the displacement and the number of oscillations per second.

A point executes simple harmonic motion such that in two of its positions the velocities are u and v and the corresponding accelerations are a and b .

Show that the distance between the positions is $\frac{v^2 - u^2}{\alpha + \beta}$, and the amplitude

of the motion is
$$\frac{\{(v^2 - u^2)(\alpha^2 v^2 - \beta^2 u^2)\}^{\frac{1}{2}}}{\beta^2 - \alpha^2}.$$
 16

4. Inside a fixed hollow cylinder of radius R , whose generators are horizontal, there are placed symmetrically two equal cylinders, each of radius r ; a third cylinder equal to each of the latter is placed symmetrically on them, Show that equilibrium cannot exist unless

$$R \leq r(1 + 2\sqrt{7}).$$
 16

5. Explain why in the case of a locomotive running on a railway curve the outer rail is raised above the inner rail. Calculate the lateral thrust on the rails when a locomotive of weight W is running on a railway curve of radius r with a speed v , the sleepers being inclined at an angle β to the horizon.

A car takes a banked corner of a racing-track at a speed F , the lateral gradient being designed to reduce the tendency to side-slip to zero for a lower speed V . Show that the coefficient of friction necessary to prevent side-slip for the greater speed V must be at least

$$\frac{(V^2 - U^2)\sin\alpha\cos\alpha}{V^2\sin^2\alpha + U^2\cos^2\alpha}.$$
 16

6. State the laws of friction. Explain what is meant by a perfectly rough body.

A perfectly rough piano is inclined at an angle α to the horizon. Show that the least eccentricity of the ellipse which can rest on the plane is

$$\sqrt{\left(\frac{2 \sin \alpha}{1 + \sin \alpha}\right)}.$$
 17

7. Show how to determine the direction and magnitude of the resultant pressure of a heavy fluid on a curved surface with which it is in contact.

A portion of a sphere cut off by two planes through its centre, inclined to each other at an angle $\frac{\pi}{4}$, is just immersed in a liquid with one face in the surface. Find the resultant thrust on the curved surface, and show that it makes an angle $\tan^{-1}\left(\frac{\pi}{2} - 1\right)$ with the horizontal.

 16

8. The tube of a barometer rises to 34 inches above the mercury in the trough, and the mercury column is 30 inches high. Find what changes are produced in the height of the column by the following operations performed successively :

(i) As much air is allowed to rise through the mercury as would, at atmospheric pressure, occupy 2 inches of the tube.

(ii) A rod of iron whose volume equals that of 6 inches of the tube is allowed to float at the top of the mercury column.

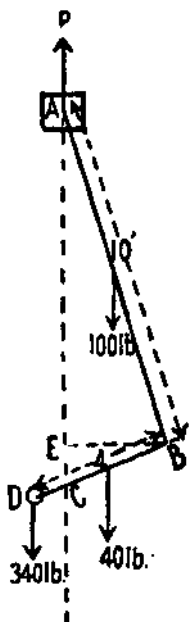
[Take the specific gravity of mercury to be 13.6, and that of iron to be 7.5.] 18

9. The diagram below illustrates a simple crank mechanism. The point A is free to move in a vertical line AC . The crank BD and the connecting-rod AB are uniform thin rods of weights 40 lb. and 100 lb., and lengths 4 feet and 10 feet respectively. The crank BD turns on a pivot at C , a point in the same vertical line as A dividing DB into two parts in the ratio 1 : 3, and it carries a heavy mass of 340 lb. concentrated at the end D . Show that the vertical force P which is necessary, when applied at A , to hold the

mechanism in any position, is equal to $\frac{50}{\left(1 + \frac{AE}{EC}\right)}$ lb. weight,

where E is the foot of the perpendicular from B on AC .

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. Prove that a function which is continuous in a closed interval is also uniformly continuous in that interval.

If $a_n \geq a_{n+1}$, and $\lim_{n \rightarrow \infty} a_n = 0$, then the function represented by the series

$$\sum_{n=1}^{\infty} a_n \sin(2n\pi x)$$

is continuous in any interval not containing an integral value of x .

23

2. Prove that the tangents from a given point to the conies which touch four given lines form an involution pencil.

A, B, C, D are any four points on a given conic, and the two conies which pass through A, B, C, D and touch a directrix of the given conic are drawn. Show that the portion of the directrix intercepted between the points of contact subtends a right angle at the corresponding focus.

23

3. Let $z_{n+1} = f(z_n)$ for $n=1, 2, 3, \dots$, where

$$f(z) = \frac{az+b}{cz+d}$$

and the numbers a, b, c, d are real, while $ad-bc=1$. Show that the points $z_1, z_2, z_3, \dots$ (in the Argand diagram) lie on a circle,

18

4. If the four sides of a twisted quadrilateral touch a conicoid, show that the points of contact lie on a plane. 18
6. Express the circulant

$$\Delta = \begin{vmatrix} a_1 & a_2 & \dots & a_n \\ a_2 & a_3 & \dots & a_1 \\ \vdots & \vdots & \ddots & \vdots \\ a_n & a_1 & \dots & a_{n-1} \end{vmatrix}$$

as a product of n linear factors. Show that the product of two circulants of the same order is also a circulant.

Evaluate Δ when $a_n = n$. 18

6. (i) Show that the equation

$$z^4 + z^3 + 4z^2 + 2z + 3 = 0$$

has no roots in the first and fourth quadrants, and two roots in each of the second and third quadrants.

- (ii) Use Sturm's theorem to find the number of real roots of the equation

$$x^5 + 2x^4 + x^3 - 4x^2 - 3x - 5 = 0. \quad 18$$

7. (i) Find the differential equation of all conies in a plane.

(ii) Find the general differential equation of developable surfaces. 18

8. Show how to find the measure of torsion at any point of a curve.

In any curve, if R be the radius of spherical curvature, ρ the radius of absolute curvature, and $\frac{1}{\sigma}$ the tortuosity at any point (x, y, z) , then

$$\rho^4 \left\{ \left(\frac{d^3x}{ds^3} \right)^2 + \left(\frac{d^3y}{ds^3} \right)^2 + \left(\frac{d^3z}{ds^3} \right)^2 \right\} = 1 + \frac{R^2}{\sigma^2}. \quad 18$$

9. Show that the method of solution of

$$x^{257} - 1 = 0$$

can be reduced to that of quadratic equations. 18

10. Show that if $f(z) = \sum_{n=0}^{\infty} a_n z^n$ is analytic for $|z| \leq r$,

then

$$\int_0^{2\pi} |f(re^{i\theta})|^2 d\theta = 2\pi \sum_{n=0}^{\infty} |a_n|^2 r^{2n}.$$

Deduce Liouville's theorem and Cauchy's inequality; and deduce the fundamental theorem of algebra from Liouville's theorem. 18

11. (i) Show that

$$\frac{1}{2\pi i} \int_{2-i\infty}^{2+i\infty} \frac{x^n}{z^2} dz = \log x \text{ or } 0,$$

according as $x \geq 1$ or $0 < x < 1$.

- (ii) Establish the result

$$\int_0^{\infty} x^{4k-1} e^{-x} \sin x dx = 0,$$

where k is any positive integer. 18

12. Mention some important properties of the Gamma function. For large x show that

$$\Gamma(x) = e^{-x} x^{x-\frac{1}{2}} \sqrt{(2\pi)} \left\{ 1 + \frac{1}{12x} + O\left(\frac{1}{x^2}\right) \right\},$$

where O denotes the 'order' symbol. 18

13. Let $P_{x,y}$ denote the probability that an integer chosen from the set $1, 2, 3, \dots, x$ should be relatively prime to an integer chosen from the set $1, 2, 3, \dots, y$. Show that

$$\lim_{\substack{x \rightarrow \infty \\ y \rightarrow \infty}} P_{x,y} = \frac{6}{\pi^2}$$

HIGHER MATHEMATICS (PURE),

PAPER 2.

Time allowed—3 hours.

Maximum Marks—100,

(Candidates should attempt Question 7, 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. Between any two unequal real numbers show that we can always find (i) a rational number, (ii) an irrational number. Deduce that if $f(x)=1$ for irrational values of x , $f(x)=0$ for rational values of x , then

$$\int_0^1 f(x) dx$$

does not exist in Riemann's sense.

23

2. When n is a positive integer, show that the function

$$y = \frac{1}{2^n n!} \frac{d^n}{dx^n} \{(x^2-1)^n\} \equiv P_n(x)$$

satisfies the differential equation

$$(1-x^2) \frac{d^2 y}{dx^2} - 2x \frac{dy}{dx} + n(n+1)y = 0.$$

Show that

$$\int_{-1}^1 P_m(x) P_n(x) dx = 0,$$

if m and n are unequal positive integers.

17

3. If the function $V(x, y, z)$ satisfies the equation

$$\frac{\partial^2 V}{\partial x^2} + \frac{\partial^2 V}{\partial y^2} + \frac{\partial^2 V}{\partial z^2} = 0,$$

show that the function

$$\frac{1}{r} V\left(\frac{k^2 x}{r^2}, \frac{k^2 y}{r^2}, \frac{k^2 z}{r^2}\right)$$

satisfies the same equation, where Tc is a constant and

$$r^2 = x^2 + y^2 + z^2.$$

20

4. (i) When $p, q, r, s > -1$, show that the value of

$$\iiint x^p y^q z^r (1-x-y-z)^s dx dy dz,$$

taken throughout the interior of the tetrahedron formed by the four planes $x=0, y=0, z=0, x+y+z=1$, is (in terms of Gamma functions)

$$\frac{\Gamma(p+1) \Gamma(q+1) \Gamma(r+1) \Gamma(s+1)}{\Gamma(p+q+r+s+4)}.$$

(ii) Show that the value of

$$\iint \sqrt{(4y-x^2)} dx dy,$$

taken over the interior of the circle $x^2+y^2=2y$, is $-\pi+^3/3$.

17

5. (i) Obtain three complete integrals of

$$pq=px+qy.$$

(ii) Solve the equations

$$(1) (x^2+y^2)(p^2+q^2)=1,$$

$$(2) pq=x^m y^n z^l.$$

17

6. Writing for $|x| < 1$,

$$F(\alpha, \beta, \gamma, x) = 1 + \sum_{r=1}^{\infty} \frac{\alpha(\alpha+1) \dots (\alpha+r-1) \beta(\beta+1) \dots (\beta+r-1)}{r! \gamma(\gamma+1) \dots (\gamma+r-1)} x^r,$$

(i) show that $y=F(\alpha, \beta, \gamma, x)$ satisfies the differential equation

$$\frac{d^2 y}{dx^2} + \frac{\gamma - (\alpha + \beta + 1)x}{x(1-x)} \frac{dy}{dx} - \frac{\alpha\beta}{x(1-x)} y = 0;$$

(ii) show that

$$y = x^{1-\gamma} F(\alpha+1-\gamma, \beta+1-\gamma, 2-\gamma, x)$$

is a solution of the same differential equation.

20

7. Show that

(i) $\sqrt{2}$ is irrational,

(ii) e is transcendental.

17

8. If one triangle can be inscribed in a conic and circumscribed about another, an infinite number of triangles can be so described, and all such triangles are self-polar with respect to a third fixed conic.

If a circle is drawn through the focus of a parabola, an infinite number of triangles can be inscribed in the circle, whose sides touch the parabola,

17

9. Give a proof of Euler's summation formula.

Derive and explain the meaning of the result,

$$\frac{1}{2} + \frac{1}{3} + \dots + \frac{1}{n} = \log n + C + \frac{1}{2n} + \sum_{r=1}^{\infty} \frac{(-1)^r B_r}{2r n^{2r}},$$

where the B 's are Bernoulli's numbers.

20

10. A domain D of the z -plane is bounded by two circular arcs joining the points $z=a$ and $z=b$, and enclosing an angle π/n at each of these points, where n is an integer. Prove that the transformation

$$w = \left\{ \frac{z-a}{z-b} \right\}^n$$

represents D conformally on a certain half-plane in the w -plane,

17

11. Explain Lagrange's method of expressing the root of a numerical equation in the form of a simple continued fraction.

Find the value of the fourth convergent of the simple continued fraction which represents the positive root of

$$x^3 - 6x - 13 = 0.$$

13

12. Write a short essay on any one of the following subjects :

(i) Operational methods for the solution of differential equations,

(ii) The n circular points *.

(iii) Conformal representation.

13

HIGHER MATHEMATICS (APPLIED).

PAPER 1.

Time allowed—S hours.

Maximum Marks—100,

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

1. Prove that, in order that a chain of variable density may hang in a given curve, the weight per unit of the horizontal coordinate x must be $T_0 \frac{d^2y}{dx^2}$, where T_0 is the horizontal tension.

A chain whose ends are fixed at A and B revolves about AB with constant angular velocity (gravity neglected). Prove that if it has the form of a curve of binet having points of zero curvature at A and B , the mass of any portion must be proportional to the orthogonal projection of that portion on the line AB .

16

2. Determine in their simplest forms the equations of uniplanar motion of a rigid body.

A four-wheeled railway truck has a total mass M , the mass and radius of gyration of each pair of wheels and axle are m and k respectively, and the radius of each wheel is r . Prove that, if the truck is propelled along a level track by a force P , the acceleration is

$$\frac{P}{M + \frac{2mk^2}{r^2}};$$

and find the horizontal force exerted on each axle by the truck.

[Axle friction and wind resistance to be neglected.]

16

3. A compressible liquid, at rest under gravity, is such that

$$\rho - \rho_0 = k \rho_0 (p - p_0),$$

where k is a constant, p and ρ are the pressure and density at any point, and p_0 and ρ_0 are their values at the free surface. Prove that, at a depth z below the surface,

$$\rho = \rho_0 e^{kg\rho_0 z}.$$

A mine-shaft has the same horizontal cross-section at all depths. It is filled with water to a depth h . Show that if the density of water were everywhere equal to that at the surface, the water would rise in the shaft a distance $\frac{1}{2} kg \rho_0 h^2$. [It may be assumed that k is small.]

16

4. Establish Euler's geometrical equations connecting the angular motions about three moving axes fixed in the body with the motion of the body referred to lines fixed in space.

A circular plate is spun by means of a stick supporting it at an eccentric point which is made to describe a horizontal circle. Prove that when a state of steady motion has been attained, the inclination θ of the axis of symmetry to the vertical is given by

$$\sin \theta = \frac{Mga}{(C-A)\omega^2},$$

where a is the distance of the point of support from the centre, ω is the angular velocity of the plane of O about the vertical, and the remaining symbols have their usual meanings. [It is assumed that the pressure exerted by the stick is vertical.] 16

5. Find the attraction of a solid homogeneous hemisphere at a point O on the edge of its plane base.

If the northern and southern hemispheres of the Earth had been of uniform densities ρ and σ respectively, the mean density being as at present, prove that gravity at the equator would be greater than it is now in the ratio

$$\sqrt{\left\{1 + \frac{4}{\pi^2} \left(\frac{\rho - \sigma}{\rho + \sigma}\right)^2\right\}} : 1,$$

and that the deviation of the plumb-line from the zenith at any point of the equator would be

$$\tan^{-1} \left\{ \frac{2}{\pi} \frac{\rho - \sigma}{\rho + \sigma} \right\}.$$
 17

6. Investigate the equation of motion for the transverse vibrations of a uniform stretched string whose ends are fixed at the points $x = 0$, $x = l$.

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

$$y = A e^{-kt} \left(\cos m' t + \frac{k}{m'} \sin m' t \right) \sin \frac{m \pi x}{l},$$

where $m'^2 = \frac{m^2 \pi^2 c^2}{l^2} - k^2$, and c is the velocity of waves of transverse vibration. 17

7. A circular cylinder of radius a is moving with velocity U along the axis of x . Show that the motion produced by the cylinder in a mass of fluid at rest is given by the complex function

$$w = \phi + i\psi = \frac{a^2 U}{z - Ut},$$

where $z = x + iy$.

Find the magnitude and direction of the velocity in the fluid; and deduce that for a marked particle of the fluid, whose polar coordinates are r, θ , referred to the centre of the cylinder as origin,

$$\frac{1}{r} \frac{dr}{dt} + i \frac{d\theta}{dt} = \frac{U}{r} \left(\frac{a^2}{r^2} e^{i\theta} - e^{-i\theta} \right)$$

and

$$\left(r - \frac{a^2}{r} \right) \sin \theta = b.$$
 17

8. Show that at any point on the material surface of a charged conductor a mechanical force equal to $2\pi\sigma^2$ per unit area acts normally outwards, σ being the surface density of the electricity at the point.

An insulated spherical conductor, formed of two hemispherical shells in contact whose inner and outer radii are b and b' , has within it a concentric spherical conductor of radius a , and without it another spherical conductor of which the internal radius is c . These two conductors are earth connected,

and the middle one receives a charge. Show that the two shells will not separate if

$$2ac > bc + b'a. \quad 17$$

9, Establish the following formula for an elliptic orbit described under the Newtonian law of force :

$$v^2 = \frac{2\mu}{r} - \frac{\mu}{a}.$$

Taking the period of revolution of Mercury round its elliptic orbit to be 88 days, and the period of revolution of the Earth round its orbit (assumed circular) to be 866¼ days, find the velocity of Mercury at one end of the minor axis of its orbit,

[Take the radius of the Earth's orbit to be 92'5 X 10° miles,] 16

10. Explain how, for a real gas, Van der Waals's equation

$$\left(p + \frac{a}{v^2}\right)(v - b) = R'T$$

has been obtained.

Show that

$$C_p - C_v = \frac{R'}{1 - \frac{2a(v-b)^2}{v^3 R'T}}$$

where C_p and C_v are the specific heats of the gas at constant pressure and constant volume respectively.

[Assume C_v to be independent of the temperature.] 16

HIGHER MATHEMATICS (APPLIED),

PAPER 2.

Time allowed—3 hours.

Maximum Marks—100.

(Candidates should attempt Questions 7 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. A heavy inextensible string rests, in limiting equilibrium, on a rough curve in a vertical plane. Find the tension at any point. If the curve is a circle of radius a , one extremity of the string being at the highest point and its length being that of a quadrant, prove that

$$\frac{2\mu}{1-\mu^2}.$$

1

2. Show that the moment of inertia of a heterogeneous ellipse about the minor axis, the strata of uniform density being confocal ellipses, and the density along the minor axis varying as the distance from the centre, is

$$\frac{3M}{20} \frac{4a^5 + c^5 - 5a^3c^2}{2a^3 + c^3 - 3ac^2},$$

where M is the mass of the ellipse, and $c^2 = a^2 - b^2$.

17

3. Assuming the temperature of the air to diminish uniformly with the height, prove that the difference of level between two stations is

$$H \frac{T_0 - T_1}{273} \cdot \frac{\log \left(\frac{h_0}{h_1} \right)}{\log \left(\frac{T_0}{T_1} \right)},$$

where H is the height of the homogeneous atmosphere at 0°C ., T_0 and T_1 are the absolute temperatures at the stations, and h_0 , h_1 the barometric heights reduced to 0°C . [Consider gravity as constant.] Prove also that, if as an approximation the temperature were taken to be constant and equal to $\frac{1}{2}(T_0 + T_1)$, the calculated height would be too great by a fraction of its true value equal roughly to

$$\frac{1}{3} \left(\frac{T_0 - T_1}{T_0 + T_1} \right)^2,$$

assuming that $(T_0 - T_1)$ is small.

17

4. A homogeneous dielectric sphere is placed in a uniform electric field of force. Show that the lines of force inside the dielectric are all parallel to those of the original field, but the intensity is diminished in the ratio $\frac{3}{K+2}$, where K is the specific inductive capacity of the dielectric.

A conducting sphere of radius a is embedded in a dielectric (K) whose outer boundary is a concentric sphere of radius $2a$. Show that if the system be placed in a uniform field of force F , equal quantities of positive and negative electricity are separated of amount

$$\frac{9Fa^2K}{5K+7}.$$

17

5. In two-dimensional irrotational fluid motion show that, if the streamlines are confocal ellipses

$$\frac{x^2}{a^2 + \lambda} + \frac{y^2}{b^2 + \lambda} = 1,$$

then $\psi = A \log \{ \sqrt{(a^2 + \lambda)} + \sqrt{(b^2 + \lambda)} \} + B$,

and the velocity at any point is inversely proportional to the square root of the rectangle under the focal radii of the point.

17

6. A system is at rest and is set in motion by impulses applied at certain points so that the velocities of these points are prescribed. Prove that the kinetic energy of the resulting motion is less than that of any other motion which is also geometrically possible.

Two equal rods, freely jointed together, are at rest in the same straight line on a smooth horizontal plane, when the end of one of them is suddenly made to move at right angles to its length with velocity a . Find the initial motion of the rods.

16

7. Find the velocity of propagation of two-dimensional waves of given length propagated over very deep liquid. Prove that the paths of the particles of the liquid are approximately circles.

When simple harmonic waves of length X are propagated over the surface of deep water, prove that, at a point whose depth below the undisturbed surface is A , the pressure at the instants when the disturbed depth of the point is $H+N$ bears to the undisturbed pressure at the same point the ratio

$$1 + \frac{\eta}{h} e^{-\frac{2\pi h}{\lambda}} : 1,$$

atmospheric pressure and surface-tension being neglected,

16

8. 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, the circle being placed perpendicular to the straight wire with its centre at distance c from it. Show that there is a couple tending to set the two wires in the same plane, of moment

$$\frac{2\pi i i' a^2}{c} \text{ or } 2\pi i i' c, \text{ according as } c > \text{ or } < a. \quad 16$$

9. Write a short account of Lagrange's method of finding the small oscillations of a dynamical system about a position of stable equilibrium.

Two uniform thin smooth rings pass through each other; the radius of each is equal to a , and their masses are equal. One of the rings is free to turn about a fixed point, and rests with the diameter through that point vertically downwards; the other ring rests in contact with the first ring at its lowest point, the planes of the two rings being perpendicular to each other. The system receives a small displacement in the plane of the upper ring. Show that the period equation for small oscillations is $2a^3 p^6 - 13ga^2 p^* + 16yap^* \sim \sqrt{v} \cdot 0$. 16

10. Prove that an oblate spheroid of small ellipticity is a possible form of a relative equilibrium for a mass of liquid rotating uniformly under its own gravitation; and that if p be the density, ω the angular velocity, and g the ellipticity, $e = \frac{15\omega^2}{16\pi p}$ approximately.

11. (i) Calculate the change in entropy occurring when 10 gin. of water at 100°C . are mixed with 20 gm. of water at 15°C .

(ii) Define the Gibbs potential in thermodynamics. If G be the Gibbs potential, prove that it satisfies the differential equation

$$G = U + pV + T \left(\frac{\partial G}{\partial T} \right)_p,$$

where U is the total energy; p , V , and T are pressure, volume, and temperature respectively.

LOWEtt CHEMISTRY.

PAPER 1. *

Time allowed—3 hours.

Maximum Marks—100.

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

1. Describe, with a diagram, Victor Meyer's method for determining vapour densities, and explain how the procedure is modified for substances which vaporize at moderately high temperatures.

"When 0.1 gram of a liquid was vaporized in a Victor Meyer apparatus[^] 20 c.c. of air, measured over water at 25°C ., and 765 mm. Hg were collected. The air in the room in which the apparatus was set up was also at 25°C ., and was 50 per cent, saturated with water-vapour. Calculate the approximate molecular weight of the liquid."

[Vapour-pressure of water at 25° C.-24 mm. Hg. i gram molecule occupies 22,300 c.c. as vapour at N.T.P.]

2. What is meant by the PH value of a solution ? Give practical instructions for measuring it by any *one* method,

To what is the characteristic action of a buffer solution due ?

3. Describe, with neat diagrams, the manufacture of sodium carbonate by the ammonia-soda process'

By what stages is potassium carbonate manufactured ?

Write down the formulae of soda ash, washing soda, sodium sesquicarbonate, and crystal carbonate.

4. What is the structure of a dry cell of the type used in pocket electric torches ?

Describe any *one* type of storage battery, and explain the chemical processes which take place when it is charged and discharged.

Why are 'lead accumulators' favoured by the motor-car industry ?

5. How would you prepare a small sample of *either* the constituent metals or *one* of their compounds from the following mixtures of their sulphides :—

(a) copper and cadmium ;

(b) arsenic, antimony, and tin ;

(c) cobalt and nickel ?

6. Give physico-chemical explanations of any *three* of the following :—

(a) Parkes's process for desilverizing lead.

(e) Passivity of metals.

(c) The formula and chemical behaviour of potassium ferrocyanide.

(d) Haber's process.

7' Describe the manufacture of any *four* of the following, and state to what uses they are applied :—(a) carborundum, (e) hydroxylamine sulphate, (c) oleum, (d) ozone, (e) producer gas, (/) sulphur monochloride.

8. Draw explanatory sketches of any/owr of the types of plant employed in metallurgical operations mentioned below, and explain their uses :—(a) Bessemer converter, (a) blast furnace, (c) Cowper stove, (d) cupellation furnace, (e) electric furnace, (/) reverberatory furnace.

LOWER CHEMISTRY.

PAPER 2

time allowed—3 hours'

Maximum Marks—100.

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

1. A substance gave the following results on analysis :—0'2500 gram gave 0'e027 gram of carbon dioxide and 0'339 gram of water; 0'200 grain gave 33'4 c.c. of nitrogen (dry) at 20° 0. and 750 mm. Its vapour density was 37. [1 c.c. dry nitrogen at N.T.P. weighs 125X 10-' grams.]

(a) What are the possible structures the compound may possess ?

(b) How would you establish the correct structure of the substance ?

2. Discuss the statement that an aliphatic halogen compound is more reactive than an aromatic halogen compound. In what circumstances does the halogen atom, bound to the nucleus, become reactive and an aliphatic halogen compound become non-reactive?

3. How are the mercaptans prepared? Discuss their properties and reactions. Include the methods available for the preparation of aromatic mercaptans in your answer.

4. Indicate, by equations and brief notes on the reagents used, practical laboratory methods for the preparation of the following from benzene :—(a) sulphanilic acid, (e) m-nitrophenol, (c) benzidine, (d) azoxybenzene.

5. Write short notes on :—

(a) Friedel-Crafts' reaction.

(b) Sulphonation.

(c) The use of phenyl hydrazine in organic chemistry.

6. Give an account of the preparation, properties, and reactions of aromatic diamines,

7. Describe, giving illustrative examples; how the following conversions may be effected :—

(a) An aldehyde into a ketose.

(b) A ketose into an aldose.

(c) A higher into a lower sugar.

(d) A lower into a higher sugar.

8. Under what conditions do the following substances interact, and what are the products ;—

(a) benzaldehyde and potassium cyanide,

(b) benzaldehyde and acetone,

(c) resorcinol and hydrogen cyanide,

(d) glucose and methyl iodide?

HIGHER CHEMISTRY.

PAPER 1.

Time allowed—3 hour'.

Maximum Marks—100.

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

1. Describe with a careful sketch of the apparatus, how you would determine transport numbers by Hittorf's method.

A solution containing 0.136 gram of silver nitrate in 100 grams of water was electrolysed between silver electrodes and, during the electrolysis, 0.0262 gram of copper was deposited in a voltameter in series in the circuit. After electrolysis, 35.66 grains of anode solution was found to contain 0.366 gram of silver nitrate. From these figures calculate the transport numbers of the silver and nitrate ions.

(Ag-108 ; N=14 ; O-16 ; Cu-63.5)

2. Write an essay on 'Nuclear Disintegration and Transmutation', with special reference to recent work on the structural units constituting the nucleus.

3. Give practical instructions for the determination of the solubility of a sparingly soluble salt—

(a) by methods which depend on determination of electro-motive force, and

(e) by methods which depend on an application of the law of mass action.

4. How are permono- and perdisulphuric acids prepared? Explain how their constitution has been determined,

Give an account of the percarbonates of sodium and potassium, and show how their reactions establish their structure.

e. Write a general survey of the interrelationships which exist between the nine elements comprising the eighth group of the periodic classification of the elements.

Show how the 'ammino' compounds of this group provide useful information on the subject,

e. Write notes on any *three* of the following i—

(a) The hydrides of boron.

(b) Bimetallic compounds.

(c) Radioactive indicators.

(d) The telluric acids,

(e) Neon, its manufacture and uses.

7. Compare the properties of zirconium and thorium and their important compounds.

Give brief descriptions of the various attempts to prepare metallic zirconium, and state the industrial uses of the metal and its oxide, zirconium.

8. What do you know about any *three* of the subjects given below?—

(a) Colloid dyes.

(b) Electric endosmosis

(c) Electric cataphoresis

(d) Flotation processes.

(e) Thixotropy.

III HIGHER 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. A substance A, containing carbon, hydrogen, and oxygen, gave on analysis 0.819 per cent, and H-13.6 per cent. When gently oxidised it was converted into a substance B which gave C-89.77 per cent, and H-11.63 per cent. The molecular weight of the latter substance was approximately 85. B, on further oxidation under different conditions, gave

mixture of fatty acids which when separated was found to consist of formic, acetic, propionic, and n-butyric acids in varying proportions. No acid, however, was obtained containing more than four carbon atoms. What were the substances A and B?

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

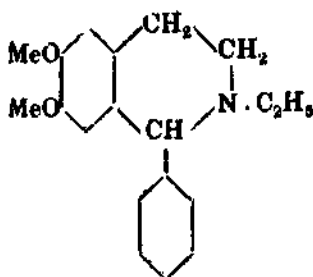
(a) Synthetic anti-malarials,

(e) Organic reagents for the estimation of metals.

(c) Recent advances in the chemistry of the vitamins.

3. Give an account of the Diels-Alder reaction.

4. What are the methods available for the synthesis of feoquinolite derivatives? Draw up a workable scheme for the synthesis of a compound having the following probable constitution :—



The compound is optically inactive.

5. Write short notes on :—

(a) Beckmann transformation.

(b) Geometrical isomerism.

(c) Ozonolysis.

6. How are the following substances prepared:—(a) indigo, (b) sulphonal, (c) veronal, (d) indanthrene blue, (e) chloramine-T?

7. Give an account of the stereochemistry of the oximes, with special reference to the determination of the configuration of the isomers.

8. Discuss the use of the following in organic synthesis:—(a) copper, (b) zinc, (c) aluminium, (d) nickel.

LOWER PHYSICS.

PAPER 1.

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. Indicate the experimental methods that have been used for determining the universal constant of gravitation, and describe one of the best in some detail.

Assuming that the distance of the moon is sixty times the earth's radius, and that it goes round once in twenty-eight days, calculate the radius of the earth,

$$(g=981 \text{ cm. sec.}^{-2})$$

2. Explain fully how it has been possible to estimate the number of molecules in a unit volume of gas.

Evaluate the mass of a molecule of carbon dioxide, assuming that a litre of hydrogen weighs 0.08925 gm., $N=2.70 \times 10^{19}$ per cubic centimeter, at N. T. P.

3. How have precise measurements been made of the wave-lengths of light which are used as standards?

4. Describe some dynamic method of determining the surface-tension of liquids. Do dynamic and static methods yield the same results in all cases?

5. Mention some important cases in which elastic equilibrium of a solid under stress is unstable. Discuss one such case fully.

e. Explain the construction and mode of operation of some form of refrigerating machine in common use.

7. Discuss the theory of the alternating-current transformer in some detail. What considerations determine the choice of material for the core of the transformer?

8. State the various ways in which it is possible to produce light which is (a) plane-polarized, and (b) circularly-polarized. What considerations would determine the choice of method in any particular case?

LOWER PHYSICS.

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. "What are the essential characters of an electromagnetic wave, and how is its propagation in space with time explained?"

2. State the laws of the photo-electric effect, and explain how they have been experimentally demonstrated. What does the photo-electric effect indicate regarding the nature of light?

3. Sound-waves carry both energy and momentum. How can this be demonstrated?

4. Describe some method of charting the strength of the magnetic field at different points between the poles of a strong electromagnet.

5. In what manner does the electrical resistance of pure metals vary with temperature? What applications does this find?

e. Describe a method for the determination of the specific heats of solids at low temperatures. Comment on the results obtained.

7. What is meant by the expression 'analysis of musical sounds'? How is this analysis effected, and what significance does it possess?

HIGHER PHYSICS.

PAPER 1.

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. Find an expression for the free path of a molecule in a gas. What experimental tests of this result are possible?
2. Give a general account of the principal features in the band-spectrum of a diatomic molecule and of their theoretical interpretation.
3. Sketch the theory of the Compton effect. Indicate to what extent this is in agreement with experiment, and the part which the effect has played in shaping the ideas of modern theoretical physics.
4. Write short notes on:—(a) variation of temperature and pressure with elevation, (b) influence of water-vapour on atmospheric movements, (c) physical condition of water in clouds, and (d) origin of thunderstorm electricity.
5. What is the Kerr electro-optic effect? Give a general account of the phenomenon, its explanation, and practical applications.
- e. A collimated beam of monochromatic light passes through a plane-walled cell containing liquid which is traversed by high-frequency sound-waves, and is viewed through a telescope in focus. Discuss the optical effects observed.
7. What is magneto-crystallic action? Write a critical account of this phenomenon and its relation to the study of crystal structure.
8. Explain what is meant by the 'structure factor' in relation to the problem of the diffraction of X-rays by crystals.
9. Comment on the physical processes occurring in the operation of (a) a gas-filled electric bulb, (b) a quartz mercury burner, (c) a neon sign, and (d) a carbon arc.

HIGHER PHYSICS,

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. Enumerate the fundamental particles recognized by modern physics, and set out fully the evidence for (a) their physical existence, and (a) their physical characters.
- 2' Derive the Planck radiation formula from theoretical considerations'

3. Consider, in detail, the relation between atomic structure and the magnetic properties of elementary substances.

4. Indicate the optical arrangements in a polarizing microscope, and explain how the instrument is used in the study of crystals.

5. Describe some modern form of Cathode-ray oscillograph and explain its working in detail. Sketch some of the practical applications of the instrument.

e. Explain how the Fabry-Perot *etalon* enables the fine structure of spectral lines to be critically investigated. Give the theory of the instrument.

7. What information has been derived from X-ray studies regarding the nature of the liquid state?

8. How has the lifting power of an aerofoil when moved swiftly through the air been explained? Mention some important experimental and theoretical investigations bearing on this subject.

9. State the explanations which have been offered for the phenomenon of (a) natural, and (e) induced, radio-activity.

LOWEK BOTANY.

PAPER 1.

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. What do you understand by alternation of generations? Discuss briefly the theories as to the origin of this phenomenon.

2. Give a brief account of the factors which influence growth in plants.

3. Give the life-history of a blue-green alga. Point out its differences from that of a green alga.

4. Describe the nuclear phenomena in the life-history of a rust.

5. Trace the line of progress in the organization of the sporophyte in Bryophytes.

e. (Give the life-history of a heterosporous Pteridophyte and point out its relationships.)

7. Describe what happens in the Cycadean ovule from pollination till maturity.

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. Give a brief account of the various external factors on photosynthesis,

From your account deduce the idea of limiting factors.

2. Give an appreciation of the work of Gregor Mendel.

3. Describe briefly the part played in evolution by co-operation as distinct from competition.

4. Justify the separation of *Punica* from Lythraceae, *Bombax* from Malvaceae, and *Impatiens* from Geraniaceae.

5. Describe Acanthaceae, and state how you would distinguish them from Labiatae.

6. Give the characteristics of epiphytes, and show how they are adapted to the habitat.

7. Explain what you understand by respiratory coefficient, and point out its significance in the study of plant metabolism.

HIGHER BOTANY.

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. Discuss the difference between Bugler's system of classification of plants and that of Hutchinson.

2. Describe the fructifications of Caytoniales, and state, what light they throw on the origin of angiosperms.

3. Give an account of the influence of light on organ-formation, drawing your illustrations from Cryptogams.

4. Describe the conducting system in Bryophytes.

5. Discuss heterothallism in fungi,

6. Discuss polyploidy and its part in evolution.

7. Give an account of the pigments in algae and their significance.

HIGHER 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. Discuss light as an ecological factor, with special reference to photoperiodism and geographical distribution of plants.

2. Summarize evidence for the existence of a semipermeable membrane in a plant-cell.

What is the composition of such a membrane ?

3. Discuss the relationships of Cordaitales.

4. Discuss briefly the question of the migration of plants to land.

5. Discuss how far the structure of the gymnosperm leaf is adapted to its function.

e. Give the characteristics of Cactaceae, and show how the structure is related to the habitat.

7. Discuss the cytological basis of variation.

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. Write a short essay on rock folds, illustrated by sketches.

2. Show, for Peninsular India south of the Indo-Gangetic plains, how the broad topographical features (plains, plateaux, and mountain-ranges) depend upon geological formations.

3. Describe the texture and give, in tabular form, the mineral characteristics of (a) pegmatite, (e) trachyte, (c) dolerite, (d) eclogite.

4. Describe briefly the distribution of deserts on the earth's surface, and explain the meteorological causes to which they are due.

5. Explain the various ways in which lakes are formed. Why are natural lakes rare in Peninsular India? Mention any you know of.

6. What is meant by 'continental drift'? Explain its bearing on the geology of India and the other continents adjoining the Indian Ocean.

7. Give a brief account of the Gondwana system in India, its distribution stratigraphical equivalents on the standard scale, general fossil contents, and economic aspects.

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 are plateau basalts? Describe the distribution and characteristics of any which occur in India, and discuss their age.

2. Explain the differences between the two principal types of metamorphism. Describe briefly the changes which take place in a clay subjected to increasing metamorphism.

3. How would you distinguish under the microscope between—(a) microcline, orthoclase, and labradorite; (b) garnet and olivine; (c) enstatite and tremolite?

4. Explain briefly any *three* of the following :—(a) thrust fault, (b) dyke, (c) pseudomorph, (d) isocline, (e) surface creep.

5. Describe briefly the occurrence and origin of the manganese deposits of India.

6. Explain, with sketches, the conditions giving rise to (a) various kinds of springs, (e) artesian supplies of water. In what way do the latter differ from the storage of oil?

7. Describe the structure of a brachiopod, and explain how it differs from a lamellibranch. In rocks of what ages do brachiopods chiefly occur?

HIGHER GEOLOGY.

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

LOWER PHYSIOLOGY.

PAPER J.

Time allowed—5 hours.

Maximum Marks—100.

(Candidates should attempt Questions J to 4, and not more than *one* of the remaining questions. All the questions carry equal marks.)

1. Draw an electrocardiogram and point out the significance of its parts,

2. What phenomena of fatigue have you observed in yourself? How do you explain them?

3. What light do the colour reactions of proteins throw on the constitution of proteins?

4. Describe some *one* method of determining the basal metabolism of humans. What are the findings for India?

5. A sensory nerve was first severed and then the cut ends were sutured together. What changes took place in the nerve thereafter?

6. What is a blood-sugar curve? What variations from the normal are found, and what are their causes?

LOWER PHYSIOLOGY.

PAPER 2.

Time allowed—3 hours.

Maximum marks—100,

(Candidates should attempt Question' 1 to 4, and not more than *one* of the remaining questions. All the questions carry equal marks')

1. Draw a diagram illustrative of the structure of the pituitary body, and give an account of its functions.

2. Give an account of the immediate and remote effects of a complete section of the spinal cord in the mid-dorsal region.
3. What factors are concerned in the formation and development of red blood corpuscles ?
4. What contributions to physiology have been made through studies of the actions of the following drugs :—nicotine, curare, histamine, adrenaline ?
5. Illustrate co-ordination through the phenomena of the act of vomiting.
6. What evidence is there that the kidney can perform work ?

HIGHER PHYSIOLOGY,

PAPER 1,

Time allowed—3 hours.

Maximum marks—100.

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

1. Discuss the nutritional requirements of Indian labourers.
2. Give an account of the evidence that oxygen can be secreted by living structures.
3. What evidence is there that central neurones are rhythmically active structures ?
4. Write an essay on the physiology of tyrosine,
5. Give a summary of modern knowledge concerning the vitamin-B complex.
6. Contrast and compare the phenomena of sleep with those of narcosis. Discuss the possible relations between the two states.

HIGHER PHYSIOLOGY.

PAPER 2.

Time allowed—3 hours.

Maximum marks—100.

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

1. Give an account of the various reflexes which set in action nervous control of the circulation.
2. Critically examine any *three* colour vision theories which are known to you.
3. What factors determine the distribution of water in the body, and its excretion ?

- 4' Write an essay on lactation,
5. Give an account of modern knowledge of the digestive enzymea of **the** pancreas and stomach.
6. Discuss the essential characters of natural stimulation'

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 account of the experiments which may ba made to show that *Paramoecium* possesses the property of reacting to environmental stimuli of different kinds.
 2. Write a short account of the methods of reproduction in the Porifera.
 3. Describe the structure of any sea-anemone you have studied.
 4. Describe completely the life-history of the liver-fluke.
 5. Give a comparative account of the foot in the Gastropoda.
 6. Compare and contrast *Nautilus* with *Sepia*.
 - 7, Sketch and describe the mouth parts of the house-fly and butterfly.

LOWEK 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. Describe the respiratory organs and the mode of respiration in birds,
 2. Give an account of the pectoral and pelvic girdles and fins iu the dog-fish.
 3. Contrast *Amphioxus* with a craniate vertebrate.
 4. Write an account of the structure, relations, and functions of the swim-bladder in fishes.
 - e. Compare the lower jaw of a lizard with that of a frog.
 6. Give briefly the minute structure of the liver.
 7. Describe the cytological details in the process pf fertilization of *either Echinus or some similar form*.

HIGHER 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. Select and describe a series of Protozoan forms to illustrate the progressive physiological differentiation of the cell.
2. Describe the various types of excretory tubules met with in Annelida, To what extent is the excretory system of *Peripatus* to be considered as 'annelid an'?
3. Compare the anatomy and life-history of the monogenetic and digenetic Trematodes, with special reference to their mode of life,
4. Show how the following forms are specially adapted to life on the sea's shore :—*Balanus*, *Arenicola*, *Patella*, *Leptoplwa*, *Bugula*.
5. Describe the various modifications of the cephalothoracic appendages in Arachnida.
6. Write a short essay on either 'Hermaphroditism in the Mollusca' or 'the evolution of the cephalopod shell'.
7. Describe the evolutionary history of the Gastropodan pleurovisceral loop and, with it as a criterion, discuss any current taxonomic system of the group.

HIGHER ZOOLOGY,

PAPER 2.

Time allowed—3 hour"

Maximum marks—100.

(Candidates should attempt Questions 7 and 2, and not more than three of the remaining questions. All the questions carry equal marks.)

1. Enumerate the changes involved in the retrogressive metamorphosis of any chordafce you have studied.
2. What is the influence of ductless glands upon the development in the Amphibia?
3. Give a short account of the principal anatomical features of the Rhynchoocephalia,
4. Describe the chief modes of adaptation of animals to a pelagic existence'
- e. Give an account of the more recent views on the origin and morphology of the auditory ossicles.
- e. What is a placenta? In what animals is it fount}? State what you fcnqw of it\$ constitution and functions'

7. Write a short essay on *one* of the following subjects :—
- (a) Mendelism in the light of recent research.
 - (b) Organ-forming substances.
 - (c) Hormones and growth.
 - (d) Clark's Zoogenesis Theory,

ADVANCED GEOGRAPHY.

PAPER 1.

Time allowed—3 hours.

Maximum

(Candidates should attempt two questions from each section, six in all. **All the questions carry equal marks.**)

SECTION A.

1. Discuss the various theories which have been advanced to explain the fundamental division of the earth's crust into continental and oceanic segments.
2. Give a brief account of the ocean currents of the Pacific Ocean, adding a note on their significance to man.
3. Write all you know about the distribution of coal and the present production of coal in Asia.
4. Describe the chief characters of the Mediterranean type of climate and explain its distribution in Europe.

SECTION B.

5. Discuss the geographical factors involved in economic development of Northern Australia.
6. Analyse the geographical factors affecting communication and transport within the tropics.
7. Examine, with reference to Africa, the general economic value of rivers in the development of a land area.
8. *Either*, (a) Write a geographical account of the beet sugar industry of Europe.
Or, (b) Analyse the geographical factors which determine the limits of the wheat-growing areas of the world.

SECTION C.

9. 'Asia Minor is aptly so called, since it presents in miniature the Fundamental Asiatic contrast between interior and marginal regions.' Discuss this statement.
10. Divide China proper into geographical regions and give a brief account of each region.
11. Give an account of the foreign trade of Japan, bringing out clearly the penetration of Japanese manufactured goods in 'Asiatic market'.
12. Write a general account of irrigation in the Indo-Gangetic Plain,

ADVANCED GEOGRAPHY.

PAPER 2.

Time allowed—3 hours.

Maximum Marks—100.

(Candidates should attempt two questions from each section, *your* in all. All the questions carry equal marks. Candidates will be supplied on request with the following :—

squared paper, drawing paper, coloured pencils, thread, sheet No. 53^d/₄ sheet No. 54 F of Survey of India maps and four-figure logarithms. All maps and paper must be marked with your Roll Number and returned with answers.)

SECTION A.

1. Draw the net for the following projection on a reduced earth of 3 inches radius, with meridians and parallels 10 degrees apart:—conical projection with two standard parallels for a latitudinal range of 10° N. to 0° N. and a longitudinal range from 10° E. to 50° W.

2. From station A (level 75 feet) eight lines are laid out by compass, the bearings increasing by 4° from zero to 315°. The following are the slopes, in degrees, measured by clinometer:—

- 2, + 1, + 2½, + 14, + 20, + 18, + 18, and 12.

Draw a plan to the scale of 200 yards to 1 inch, and show contours at 50-foot intervals from 50 to 300. (Any formula you use may be regarded as accurate up to slopes of 20°.)

3. Illustrate, by diagrams, the following landscape types and, in each case indicate the possible distribution of settlement:—(a) a lowland with rivers liable to floods, (b) a glaciated valley in a high plateau, (c) a fiord coastland. In each case the illustrations must be based on actual examples which you have studied.

4. Draw *three* representative sections showing the form of the surface of the hill country on the map sheet provided [1 inch Survey of India sheet No. 53^j/₄].

SECTION B'

5. After a careful study of the map-sheet provided, attempt a description of the topography and scenic features (with sketches) of the area [1 inch Survey of India sheet No. 53^j/₄]

6. Discuss the merits and defects of the cartographical methods employed On the map-sheet provided [Survey of India sheet No. 54 F—Dholpur : scale 1 inch to 4 miles].

7. What are the general meteorological conditions indicated on the weather map provided ? Forecast the weather conditions for the ensuing twenty-four hours, giving reasons for your statements.

e. Show exactly how you would try to obtain statistics of population and make a population map of a country' Discuss the limitations of such a map.

ASTRONOMY.

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. Neglecting refraction, what was the altitude of *Regulus* at the Bombay Observatory on 5 June, **1934**, at $10^h 15^m 0^s$ p.m., Indian Standard Time? (You are permitted to use the Nautical Almanac, 1934, and mathematical tables.) 20
2. Give a short description of the essential details of *five* of the following instruments :—(a) solar eye-piece, (b) slow motion in Right Ascension, (c) striding level, (d) filar micrometer, (e) Ramsden eye-piece, (f) heliometer, (g) finder. 20
3. Define the following terms :—(a) altitude, (b) solar constant, (c) dip of the horizon, (d) ionization, (e) hour angle, (f) zodiacal light, (g) heliacal rising, (h) circumpolar star, (i) asteroid, and (j) ecliptic. 20
- ! 4. State what visual observations would be made to determine the light curve of a variable star, and write a short essay on the variable stars. 12
5. Explain the relation between the absolute magnitudes of stars and their spectra. 12
6. Write an essay on *either* 'perturbations', or 'gravitation', or 'star catalogues'. 12
7. Give an account of the star clusters. 10
8. Summarize our knowledge of sun-spots and their spectra. 10
9. Describe the telescopic appearance of Jupiter.

STATISTICS.

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. What is the essential characteristic of the statistical materials subjected to analysis and comparisons based on the theories of association and contingency? Give an illustration to show how the absence of this characteristic may lead to erroneous results.

Find the contingency coefficient (e) for the following table. What are the disadvantages of the contingency coefficient?

Mathematics						
Science		Very Good	Good	Average	Poor	Totals
	Very Good	10	7	3	—	20
	Good	11	20	50	1	82
	Average	16	28	72	2	118
	Poor	—	—	5	7	12
	Totals	37	55	130	10	232

2. The marks (out of a maximum of 100) obtained by 1,000 candidates are shown in the following frequency table. Find the mean, median, standard deviation, and coefficient of variation, as also a measure of the skewness of the distribution. Find also the 'probable error' of each of the first four constants of the distribution.

Marks	Number of candidates within the limits of marks shown in the first column
17.5—22.5	2
22.5—27.5	8
27.5—32.5	33
32.5—37.5	80
37.5—42.5	170
42.5—47.5	243
47.5—52.5	213
52.5—57.5	14e
57.5—62.5	67
62.5—67.5	35
67.5—72.5	4
Total	1,000

3. What are the principal advantages and disadvantages of presenting statistical data in graphic form ? Give a brief description of the different kinds of diagrams in vogue and the circumstances favouring the adoption of each of them.

The following table shows the purchases and sales for one year of a trading concern. Present these facts in one graph, and comment on the purchasing and selling policy of the concern and its cash position.

<i>Month</i>	<i>Purchases</i>	<i>Sales</i>
January	22,e00	28,100
February	23,600	33,800
March	27,000	33,800
April	29,300;	3e,e00
May	30,400	45,000
June	31,500	42,200
July	34,900	40,500
August	3e,000	39,400
September	37,100	3e,e00
October	37,100	33,800
November	45,000	3e,000
December	48,400	39,400

4. Explain the use of ' index numbers' for the study of price changes in statistical analysis.

The following table shows the average price of a ton of cement and 10 lb, of wheat in each case for a period of ten years. Construct index numbers for the two commodities, taking the first year as base. Discuss the nature and probable causes of the price fluctuations to which the commodities have been subject during the period, and show how the index numbers afford a satisfactory basis for this study. Draw graphs to elucidate your arguments.

<i>Year</i>	<i>Price of a ton of cement,</i>	<i>Price of 10 lb, of wheat</i>
1	Rs. 35.0	Rs. 0.8
2	32.7	0.7
3	30.3	0.6

Year	Price of a ton of cement	price of 10 Id. of wheat
4	32.6	0.7
5	37.3	0.8
6	44.3	1.0
7	49.0	1.1
8	50.4	1.2
9	51.3	1.3
10	50.9	1.3

5. With reference to the following figures, which represent the sums assured (to the nearest crore of rupees) under the new policies effected with a Life Assurance Company during each of the years 1912 to 1935, give a short explanation of the character and the forces affecting time series in the field of economics.

What is the general object kept in view in the statistical analysis of time series ?

Locate approximately where, if any, there is a significant change in the secular trend of these figures.

Grouping the figures by threes, find the second-degree parabola of best fit to the eight grouped figures.

1.0, 0.9, 0.7, 0.6, 0.7, 0.8, 1.2, 1.8, 1.6, 1.7, 1.7, 1.7,
2.4, 3.0, 3.9, 4.7, 5.9, 6.5, 5.4, 5.3, 5.9, 7.0, 7.6, 8.9.

6. Either, (a) What statistical particulars are usually collected, and in what form, before a decennial census of India ? How are they analysed? What are your arguments for and against censuses being taken oftener than once in ten years in India ?

Or, (e) Write an essay on 'The census as an aid to scientific business'.

7. Either, (a) Under what circumstances would you adopt the arithmetic mean and the geometric mean of two census enumerations as the mean population of the intercensal period ? Find a formula for the mean population on the assumption of geometrical progression for the increase of population.

Or, (e) If, due to very large errors in ages returned at a census, the population be collected in groups of $2t+1$ consecutive ages, so that

$$\omega_0 = \sum_{x=0}^{2t} p_x, \quad \omega_1 = \sum_{x=t+1}^{4t+1} p_x, \quad \omega_2 = \sum_{x=4t+2}^{6t+2} p_x,$$

where p_x is the population actually returned at age x , show that on the assumption of constant second differences the approximately true population p' at the central point of the three groups considered is given by

$$p'_{3t+1} = \frac{1}{2t+1} \left\{ \omega_1 - \frac{t(t+1)}{6(2t+1)^2} \Delta^2 \omega_0 \right\}.$$

8. Write full explanatory notes on :—random sample, ogive, tetrachoric correlation, correlation ratio, and kurtosis.

9. What is the underlying assumption on which the chi-square (χ^2) test of Professor Pearson for testing 'goodness of fit' is based? What precautions

would have to be observed in applying the test in numerical cases ?, What difficulties are usually experienced in the practical application of the test ?

The following table gives the claim experience of a Life Assurance Company during the year 1935 amongst Hindu and Mohammedan lives assured, classified according to causes of death. Test whether the examples are differentiated or undifferentiated, and indicate what conclusions you can draw as to the incidence of the diseases mentioned in the first column on the two communities.

<i>Diseases</i>	<i>Hindus</i>	<i>Mohammedans</i>
Heart	88	8
Brain and Nervous System	57	2
Fever	95	3
Enteric Fever	114	9
Diabetes and Carbuncle	75	5
Stomach and Intestines	96	6
Respiratory Organs	285	11
Tubercle	106	0
Kidney	115	5

10. Fit a normal curve to the statistics given in Question 2, assuming all fractional marks possible, and draw a graph of the fitted curve in relation to the original statistics. Find whether the discrepancies between the observed distribution and the corresponding normal distribution are significant or not by

the β_1 , β_2 , and the skewness $\left(= \frac{\sqrt{\beta_1 (\beta_2 + 3)}}{2 (5\beta_2 - 6\beta_1 - 9)} \right)$ tests. Indicate (without

making any numerical calculations, but setting out in detail your procedure) how you would apply the X^2 (chisquare) test for the same purpose. If the first forty candidates are selected for the superior services of the state, find the number of marks secured by the last candidate selected. How many have passed in the first class securing 65 per cent, or more ? Give your results with reference to the normal curve.

11. Calculate the coefficient of correlation and its probable error for the following table, which gives the scores of 388 pupils at two different intelligence tests.

Test B		Test A											
		70-79	80-	90-	100-	110-	120-	130-	140-	150-	160-169	Totals	
		100-109	1	—	1	1	—	—	—	—	—	—	3
		110—	—	—	2	3	2	—	1	—	—	—	8
		120—	—	2	2	10	9	4	2	—	—	—	29
		130—	—	1	5	13	14	15	6	2	—	—	56
		140—	—	—	6	13	22	20	10	3	—	—	74
		150—	—	—	2	10	17	28	20	8	—	—	85
		160—	—	—	—	3	9	18	28	10	3	—	71
		170—	—	—	—	2	5	9	10	10	5	5	46
180—	—	—	—	—	1	—	1	7	6	1	16		
Totals		1	3	18	55	79	94	78	40	14	6	368	

PSYCHOLOGY.

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. 'Psychology is like physics before Galileo's time—not a single elementary law yet caught glimpse of' (WILLIAM JAMES). Discuss this statement, and show how far, and in what way, psychology has advanced since James wrote this in 1890.
2. What is the body-mind problem? How does it arise, and what is the most satisfactory attitude for a psychologist to adopt towards it?
3. What are the characteristics of normal perception? Can you, in terms of these characteristics, account for the more important varieties of perceptual illusions?
4. What are the monocular and binocular factors in the visual perception of distance?
5. What is the general function of imaging in the mental life of man? What is its special function in perceiving, remembering, and thinking respectively?
6. Describe the more important features of human learning, and discuss their significance for the practical problem of training the young.
7. Give a critical but brief review of the various theories of the origin of conventional language.
8. Narrate briefly the history of the concept of instinct since McDougall first defined it in his *Social Psychology*. In what sense would you use the term?
9. How far do Freud, Jung, and Adler agree in their psychological teaching, and how far do they differ? Whose system do you prefer, on the whole and why?
10. How would you account for the phenomena of multiple personality?

EXPERIMENTAL PSYCHOLOGY.

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

PHYSICAL ANTHROPOLOGY.

(Physical Anthropology, Pro-historic Archaeology and Technology.)

Time allowed—3 /ours.

Answer Question I. Of the remaining questions you are advised to answer either *four or five*, selecting at least one question from Section II, and at least one from Section III. Your answers will be valued as a whole. Candidates who present answers to less than *five* questions in all, or more than *six*, will be presumed to do so in knowledge of the value of the answers which they are able to give to the questions they choose.

Tear off the maps printed on this sheet and give up all the maps separately from the answer book.

SECTION I.

1. Describe, and if possible identify, the racial types in the photographs A, B, C, and the subjects of the illustrations P, Q, R.

SECTION II.

2. If the lower jaw, pelvis, and right tibia of a human skeleton are submitted to you for examination, how will you proceed to determine the sex, age at death, and racial characters of the individual of: whom they had been part?

3. Describe fully the principal differences between the skulls of a Tibetan, a Sikh, a Toda, and an Andamanese.

4. Discuss any three recent discoveries of human remains throwing light on the zoological position of Man.

5. Draft instructions for an anthropological survey of a district, explaining what you propose to find out about the inhabitants, and by means of what data.

6. What are the principal racial elements in the population of *either* the basin of the Ganges, *or* the West of Europe from the Rhine to the Atlantic? Sketch their geographical distribution on the attached map.* By what means is it possible to determine which elements arrived earlier, and which later?

7. What anthropological conclusions may be drawn from the study of the varieties of the hair, in Man?

SECTION III.

8. Describe, and indicate on the map of the world (provided) the geographical distribution of the following device':—Kite-fishing, the harp, bagpipes, cicatrization, "coiled" pottery, the boomerang.

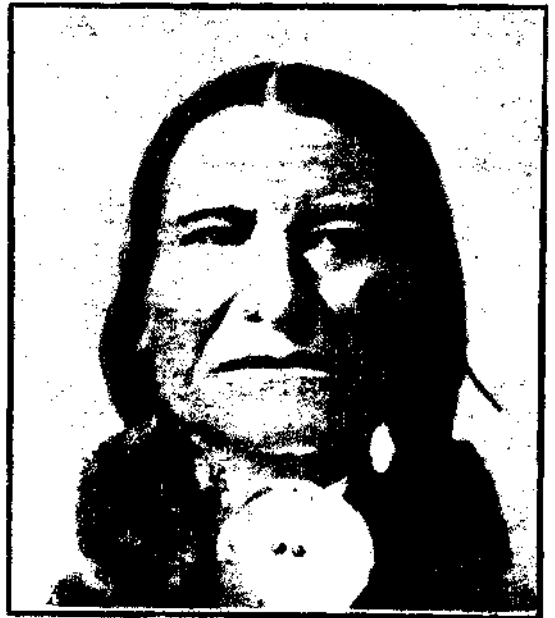
9. What inferences have been drawn from the distribution of "megalthic" monuments; and how far do you consider that they are justified?

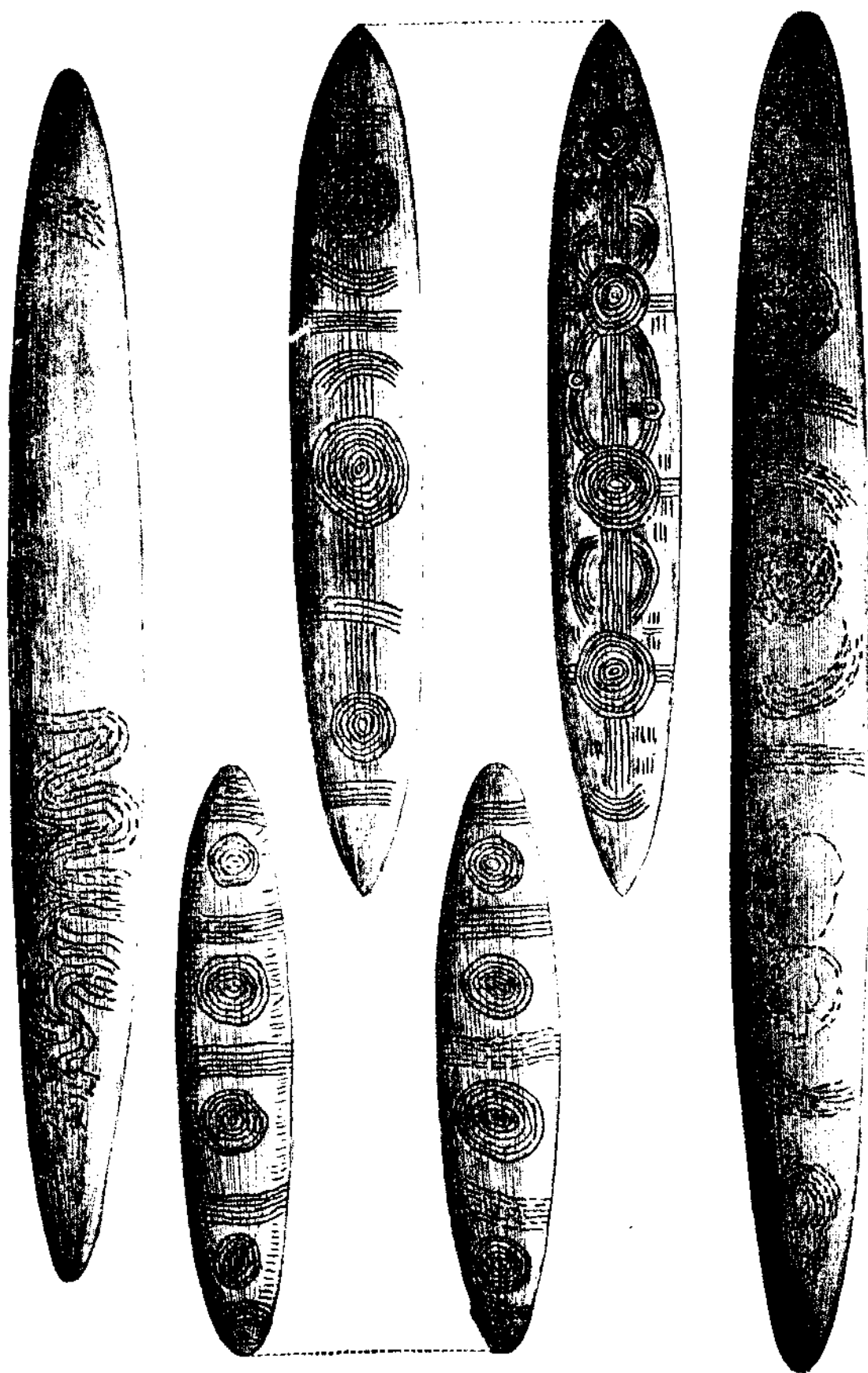
10. Describe the arts and industries of any one people recently observed in *either* a "neolithic" *or* a "bronze-age" state of civilization, and illustrate from these examples the contributions of anthropology to archaeological method.

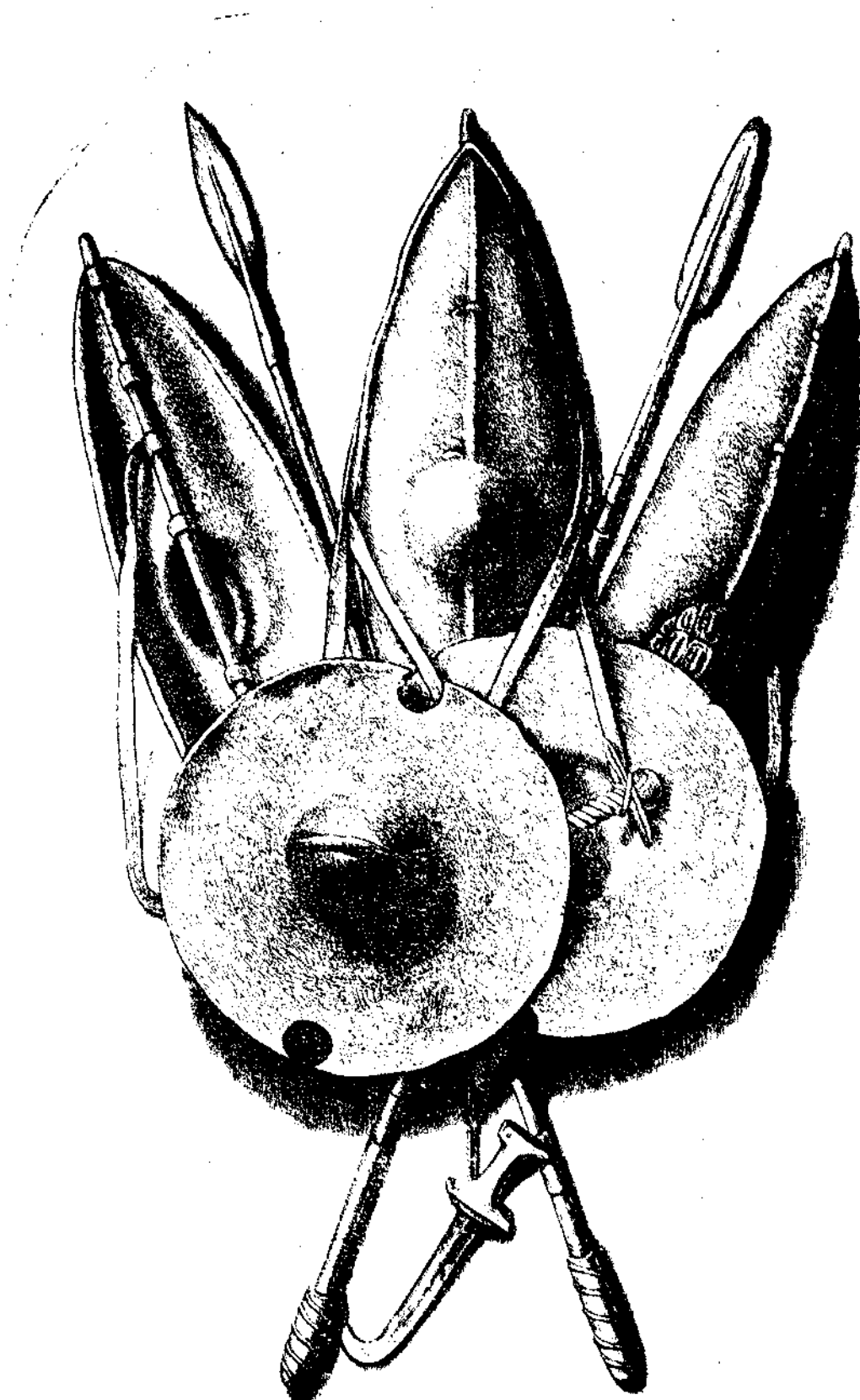
11. What are the principal varieties of the archer's bow? How are they related to each other in space and in time?

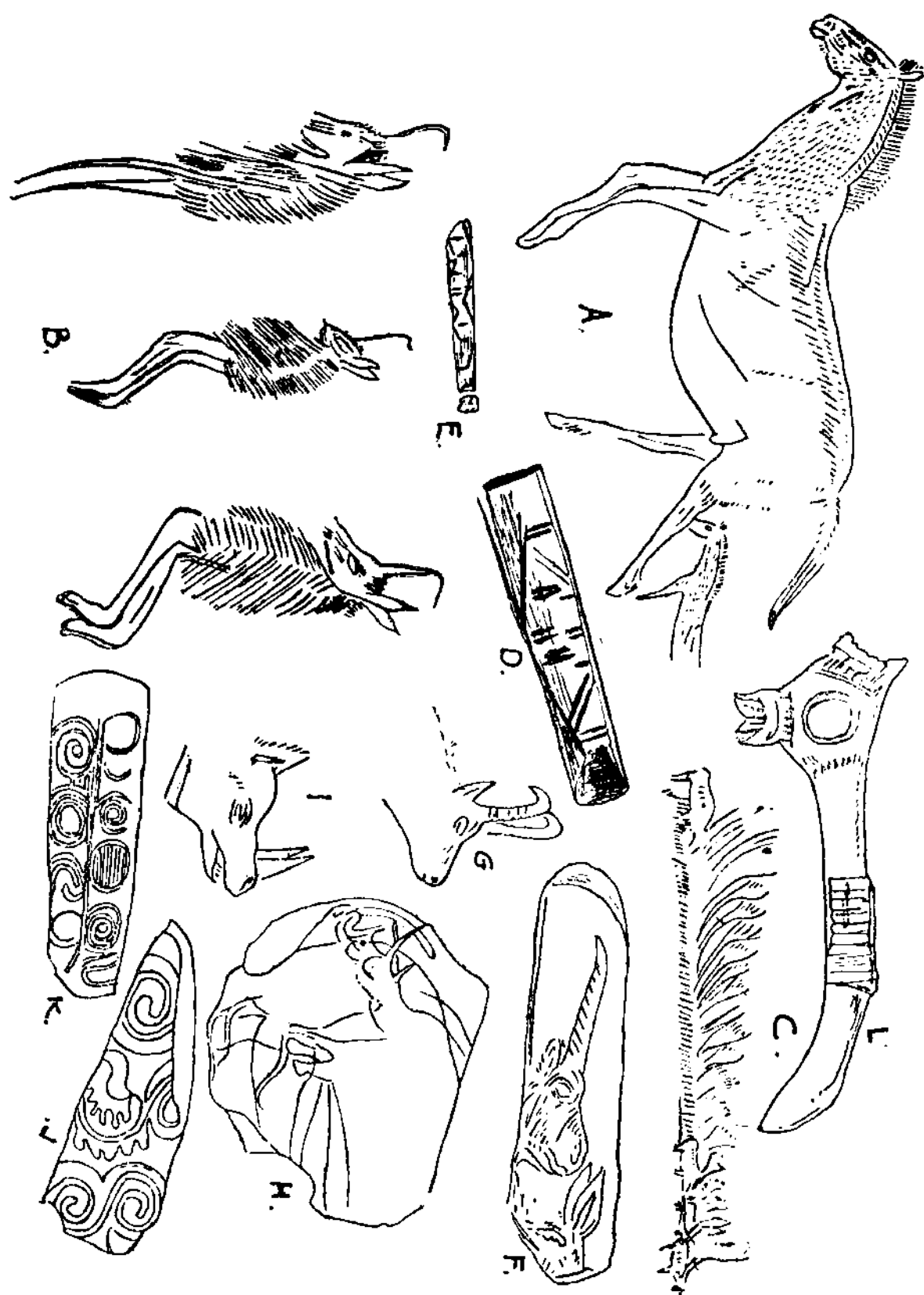
12. By what means, and with what success, is it possible to discover the earlier history of agriculture? Illustrate (a) from European evidence, (b) from any Asiatic area which you have studied.

13. What is meant by "geometrical" art? In what various ways is it supposed that such art may have arisen, and how would you illustrate them?









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. Mention, with brief notes, the various methods followed in disposing of the dead. Illustrate each method by reference to *one* (and not more than *one* instance of its use anywhere in the world to-day.

2. What features would you expect to survive a change from a matrilineal to a patrilineal system? Justify your answer by illustrations from castes or tribes in India or Burma.

3. Write short notes on any *three* of the following :—coronation ceremonies; the killing of the divine king; the last sheaf; cannibalism; sin-eating; the number thirteen; Apollo Smintheus.

4. Discuss and illustrate trial by ordeal, mentioning as many as you can of the forms it may take.

5. What do you understand by a culture-complex? Illustrate.

6. 'Mourning, or marriage, or puberty rites . . . are not special items of human behaviour each with their own generic drives and motivations . . . but certain occasions which any society may seize on to express its important cultural intentions.' Examine this statement critically, and illustrate its truth or falsehood.

7. A contributor to *Biometrika* has recently argued that the Andamanese are merely Burmeso who have degenerated through isolation. Criticize (or justify) this view on any grounds you can.

BRITISH HISTORY.

(Extra Numerum Subject.)

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt/two Questions, of which one must be from SECTION A.
All the questions carry equal marks.)

SECTION A.

1. Mark on the outline-map' provided the places whose ownership was determined by the Treaty of Paris which ended the Seven Years' War, and indicate the importance of the areas thus allocated.

Or,

2. With the aid of the outline-map' provided, describe briefly the principal changes in distribution of the colonial possessions of the chief European powers as a result of the Great War.

SECTION B.

3. Discuss the main changes that took place in England under the Norinari Kings.

4. Give the main points of the Great Charter signed by King John in 1215 and discuss their significance.

5. Compare the social and economic conditions of the people of England in the thirteenth century with the conditions in the first half of the nineteenth century.

6. Explain the position in England in the fourteenth century with regard to the Constitution and (he Public Finances.

7. Discuss the attitudes of Henry VIII, Queen Mary, and Queen 'Elizabeth to the Protestant Reformation.

8. Give an account of the work of the Long Parliament, and indicate briefly the parts played in it by the leading personalities.

9. Sketch the development of the system of poor Relief in England from the time of Elizabeth up to 1850.

10. Examine, with regard to their theory aud their achievement, the New Liberalism and the New Conservatism as represented by Gladstone and Disraeli respectively.

11. Describe the existing relations between Great Britain and the Irish Free State.

GEOGRAPHY.

(Extra Numerum Subject.)

Time allowed—3 hours.

Maximum marks—100.

(Candidates should attempt question 1, and not tnoro than/tve 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*provided insert the following :—

(a) Yenisei River, Yangtze Kiang, Euphrates River.

(e) Manchukuo, Sumatra, Iraq.

(c) The Isthmus of Kra, Adam's Bridge, Cilician Gate.

(d) Ankara (Angora), Haifa, Madras, Kobe, Shanghai, Saigon, Jamshed-pur, Poit Arthur.

(e) Shade the areas which have more than e0 inches of rain annually.

(/) *Thvee* areas which produce coal.

20

2. Gire an account of the physical conditions and economic factors associated with the production of *either* wheat *or* rice. Mention the relative importance in foreign trade of the countries which export the commodity you have described.

16

3. *Either*, (a) Describe the differences in the growth of river-systems in Immid and arid regions.

Or, (e) Account for the relief features of areas which have been glaciated.

16

4. Write a brief geographical account of the distribution of population in

India. 16

16

5. Compare and contrast the geographical position of Bombay and Calcutta, and the trade which passes through them. 1e
6. "Describe carefully any *one* major geographical region in India. 1e
7. Write a geographical account of the agricultural regions of *either* North America *or* Australia. 1e
8. Show the relation between the climate and the chief belts of vegetation in Africa. 19
9. Show the part played by geographical factors in the growth of *one* of the industrial areas of *either* the British Isles *or* the United States of America. 1e
10. Summarize the regional geography of *one* of the following :—Italy, France, Belgium, New Zealand, Brazil. 1e

TABLE OF THE RESULTS OF THE COMPETITIVE EXAMINATION FOR THE INDIAN CIVIL SERVICE, HELD IN INDIA (DELHI) IN JANUARY 1937.

NOTE. —The roll numbers of candidates taking the various vernacular Languages and Literatures and European Languages are as follows :—

Languages—

Assamese.—79, 80.

Bengali.—78, 81, 83, 85, 106, 109, 110, 118, 125, 285, 309, 389, 426, 28, 430, 431, 433, 434, 435, 436, 437, 439, 443, 414, 445, 446, 447, 449, 450, 458, 461, 465, 466.

Burmese.—2, 3, 4, 7, 9, 10, 11, 12, 15, 17, 22, 23, 24, 29.

Hindi.—44, 119, 121, 124, 194, 196, 206, 207, 219, 224, 245, 246, 17, 269, 272, 292, 305, 317, 322, 330, 332, 333, 339, 347, 348, 354, 355, 361, 365, 372, 377, 383, 384.

Kanarese.—312, 139, 139, 347, 348, 354, 355, 361, 365, 372, 377, 381, 584. *Malayalam*.—M, 55, 56, 57, 58, 60, 153, 163, 166, 33

Mamru.—40, 41, 70, 76, 92, 95, 96, 97, 99, 102.

Oriya.—88, 89, 90.

Punjabi (Gurmukhi).—46, 195, 241, 247, 257.

Sindhi.—45, 49, 51.

Tamil.—6, 52, 59, 61, 133, 134, 135, 138, 140, 142, 143, 146, 154, 164, 165, 168, 169, 171, 172, 175, 395, 396, 397, 398, 401, 403, 404, 405, 407, 408, 411, 411, 419, 451.

Telugu.—128, 144, 145, 156, 166, 415.

Urdu.—32, 33, 36, 100, 114, 117, 123, 149, 150, 177, 178, 179, 180, 182, 183, 185, 187, 188, 190, 191, 192, 197, 198, 199, 200, 202, 203, 204, 205, 209, 210, 212, 214, 215, 218, 220, 222, 223, 226, 227, 229, 232, 233, 236, 238, 239, 242, 243, 244, 248, 249, 250, 251, 254, 255, 256, 258, 260, 262, 263, 268, 270, 271, 273, 275, 277, 279, 280, 281, 282, 287, 289, 290, 95, 296, 297, 299, 301, 302, 303, 310, 314, 318, 319, 325, 326, 327, 329, 334, 335, 338, 340, 3, 343, 346, 349, 351, 356, 362, 373, 374, 375, 386, 387, 391, 424, 425, 427, 457, 464, 468.

French.—27, 43, 93, 94, 170.

German.—37, 371.

Italian.—321.

Literatures—

Bengali.—SO, 106.

Burmese.—11, 12, 22.

Hindi.—121, 194, 196, 206, 207, 269, 272, 309, 317, 333, 355, 361.

Punjabi (Gurmukhi).—46, 195, 247, 257.

Tamil.—168, 413.

Urdu.—36, 114, 117, 123, 177, 179, 180, 182, 185, 187, 188, 190, 191, 192, 198, 199, 200, 203, 204, 205, 209, 210, 212, 215, 220, 223, 226, 227, 233, 236, 242, 244, 248, 249, 250, 251, 254, 255, 258, 262, 263, 270, 275, 279, 289, 295, 299, 301, 314, 318, 319, 25, 334, 340, 342, 343, 346, 356, 362, 373, 375, 387, 391, 424, 427, 464.

Table of the results of the Competitive Examination for the

Serial No.	Roll No.	Name.	Province.	Community.	Obligations																												
					General knowledge.			Vernacular of 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).		
					Essay.	English.																										1	2
1	355	G. B. Rao	U. P.	Hindu	60	96	59	74	280									116	146			59	65							62		58	
2	121	Rudheshyam Ojha	Bihar	Hindu	60	75	67	60	200																	62	76	85		78	77	71	
3	60	P. P. Vaidyanathan	Madras States.	Hindu	65	79	65	54	115																						79	70	
4	243	Nazir Ahmad II	Punjab	Muslim	65	85	67	58	200			148	141					106									53	76					
5	310	Kaushal K. Dass	U. P.	Indian- xian.	10	106	58	43	280										117	65		63							69	50	75	43	
6	165	K. Narayanan	Madras	Hindu	110	96	66	69	150																			54	59	60	76	49	
7	317	Shanti Swarup Gupta.	U. P.	Hindu	75	97	58	59	175									128										48	82		77	71	
8	219	Gur Saran Dass Kalra.	Punjab	Hindu	65	74	76	61	175																			76	54	64	77	54	
9	36	Sheikh Ikramul Haque.	Balu- chistan.	Muslim	45	104	61	57	280			122	113					81	103														
	255	Sheikh Mohammad Yusuf.	Punjab	Muslim	60	92	63	61	240			160	117					74													74		
11	56	P. C. Mathew	Madras States.	Indian- xian.	100	111	54	50	150										135	39		57				70				69	67		
	308	K. S. Sundararajan	Madras	Hindu	80	101	68	53	140																								
13	321	Leslie James Johnson	U. P.	Indian- xian.	85	117	39	27	200											49		60						74	60	72	63		
14	45	Dayo Hasomal Butani.	Sind	Hindu	90	83	51	47	210																					74	68		
15	187	Kuldip Singh Bhandari.	Punjab	Sikh	70	91	58	53	125			162	142						128											60	45		
16	365	Shri Pat	U. P.	Hindu	70	90	73	60	220																					80	60		
17	119	Birender Lall	Bihar	Hindu	75	84	55	48	265																					51	70	59	
18	220	Bashir Ahmad Kurodi.	Punjab	Muslim	50	88	58	70	130			167	140					108								65	48						
19	309	Bibhabasu Das	U. P.	Hindu	55	113	56	54	110					171	115			102							66	62							
20	281	Hasan Tarab Ali	Delhi	Muslim	60	78	58	62	175																	80	51	57	68	70	46		
21	169	R. M. Halasyam	Madras	Hindu	70	101	61	67	145																								
22	188	Sayyid Altaf Hussain	Punjab	Muslim	75	97	67	78	75	166	122							125	127														
23	185	Mirza Muzaffar Ahmad.	Punjab	Muslim	35	72	47	74	280	90	115							111															
	249	Hamiduddin Querishi	Punjab	Muslim	75	96	64	67	130			146						77															
26	272	Ram Nath Vaandeve	Punjab	Hindu	40	96	58	53	200					161	114			109			27				55								
	191	Asghar A. Shah	Punjab	Muslim	65	95	70	63	100			122	113					89															
27	79	Nalini Kanta Barua	Assam	Hindu	70	99	61	80	170										116			58			60	48	50	55	51				
28	238	Malik Wazir Ali	Punjab	Muslim	70	105	60	70	115	109	156											53	59		58	54							
	372	Chandra Prakash Srivastava.	U. P.	Hindu	70	88	59	72	115																						65		
30	143	S. R. Krishnamurthi	Madras	Hindu	115	93	66	64	75																60	52	71			71	71		
31	335	Abdul Majeed	U. P.	Muslim	30	86	68	59	175																					77	68		
32	206	T. N. Dar	Punjab	Hindu	85	100	54	69	145			115						90															
33	207	Indarjit Singh Sethi	Punjab	Sikh	80	98	76	73	100									153	101	36												49	
34	210	S. M. Omar Farooq	Punjab	Muslim	20	118	54	73	165			160	137					85										46	43				
	228	Mohd. Bashir Khan Malik.	Punjab	Muslim	70	80	64	58	140									100							67	60	74			74	41		
36	296	Sayyid Ali Akhtar Rizvi.	U. P.	Muslim	65	83	51	27	175			163	126						100		32	56											
37	292	Lakshmi Narsingh Acharya.	U. P.	Hindu	70	75	54	73	215																								
	305	Ram Pal Bhardwaj	U. P.	Hindu	55	93	54	41	115										106	53		60					68		71		71	42	
39	41	V. A. Paranjape	Deccan States.	Hindu	25	81	52	64	190																		54						

Indian Civil Service, held in India (Delhi) in January 1937.

[illegible]

[illegible]

Indian Civil Service, held in India (Delhi) in January 1937.

[illegible]

Serial No.	Roll No.	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).		
					Dewy.	English.	General Knowledge.	Everyday Science.	Vernacular or European Language.	Viva Voce.																												
											150	160	100	100																							100	300
81	247	Sham Singh Pantal	Punjab	Sikh	35	78	42	40	67	200										143																		
82	351	Pureshottam Chandra.	U. P.	Hindu	40	85	67	61	55	166										88																		
83	43	R. T. Shaban	W. I. States.	Hindu	70	92	62	30	35	90																			71	65	51	69	74					
	94	Saminulla Khar Dehavi.	Bombay	Muslim	35	63	60	27	42	280																		30										
85	461	P. S. V. Iyer	Bengal	Hindu	55	85	66	53	54	135																												
86	424	Ganga Dhar Malik	Punjab	Hindu	35	81	54	40	60	120			99	140						100																		
87	468	Sudhindra Nath Roy	Bengal	Hindu	35	80	47	44	45	185																												
88	59	C. Vembu	Madras States.	Hindu	35	90	53	33	45	115																												
89	387	Q. Mujtuba Hasan Zinjani.	U. P.	Muslim	30	67	57	53	61	100			147	130						82		43	50															
90	275	H. C. Widhani	Punjab	Hindu	5	85	56	44	46	100			167	152						90								36				72						
91	280	Ghulam Ali Butt	Delhi	Muslim	40	73	53	46	65	120																		34	40			60	46					
92	58	S. Govinda Menon	Madras States.	Hindu	75	72	64	39	42	50																57	75	48										
93	239	Malik Mahbub Khan	Punjab	Muslim	15	59	44	32	60	155			133	126														35	43			68	31					
94	175	C. S. Swamithathachari.	Madras	Hindu	65	78	45	31	47	125																	67	63	51			74	39					
95	314	Mohammed Ahsan Farooqi.	U. P.	Muslim	20	101	51	43	57	90			146							72	117							42	42									
	427	Kamaluddin Ahmad	Bengal	Muslim	65	69	49	22	58	145										83								52		53	46	68	50					
97	179	Abdul Hayi	Punjab	Muslim	60	73	47	51	68	30			124	118						106								50	45									
98	334	Mahmud Hasan Khan	U. P.	Muslim	35	74	43	11	59	140	110		152							83								44		33								
99	187	Muhammad Said Ahmad.	Punjab	Muslim	65	65	47	44	70	60	119	116	131							80																		
	287	Sayyid Manzoor Husain.	Delhi	Muslim	60	62	53	61	50	220																						68	33					
101	417	K. P. Viswanathan Nayar.	Madras	Hindu	75	57	39	47	51	95																							48					
102	386	Mohammad Zaki	U. P.	Muslim	25	73	44	29	55	100			114	137														45		60		61	42					
103	138	S. E. Dharmaraj	Madras	Indian Christian.	55	83	43	42	55	90																												
104	319	Syed Mahmood Hamid.	U. P.	Muslim	5	64	36	24	60	180			97	124						93								40					64					
	377	Gauri Shankar Tewari.	U. P.	Hindu	40	82	57	66	48	80																												
	415	K. Venkatarao	Madras	Hindu	80	75	50	48	59	60																		40	71				50					
107	55	M. K. Narayana Panicker.	Madras States.	Hindu	10	46	64	62	39	140																												
108	431	Ramnarayan Bhattacharyya.	Bengal	Hindu	65	87	51	53	38	90																		33	37									
109	81	Hirapada Das	Assam	Hindu	25	100	57	44	29	70																			71			80						
	346	Muqeen-uddin Ahmed.	U. P.	Muslim	15	81	42	31	74	110			146	126						102	91																	
111	332	Lalit Mohan Bhatia	U. P.	Hindu	90	59	56	30	47	95																			48		56	67	50					
112	404	R. Srinivasan	Madras	Hindu	60	101	66	34	51	60										107	37		46				45	60				62	38					
113	229	Mian Obaidullah	Punjab	Muslim	35	77	40	48	57	115			100	125														32	42									
114	206	Ishwar Chandra Dhandu.	Punjab	Hindu	35	48	51	53	49	125										96																		
115	85	Krishna Kumar Bose	Orissa	Hindu	70	94	47	39	48	110										135	30											62	35					
116	154	M. Srinivasagopalan	Madras	Hindu	70	60	63	28	51	85																		44										
117	349	Ali Irtiza Osmanly	U. P.	Muslim	10	65	39	42	74	70			129															61		43	67	68	53					
118	133	S. Bhaskaran	Madras	Hindu	30	60	63	37	30	80																	43	47	71			61	66					

Indian Civil Service, held in India (Delhi) in January 1937.

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Table of the results of the Competitive Examination for the

Serial No.	Roll No.	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																							100	300
119	207	Vidya Prakash Duggal.	Punjab.	Hindu.	40	88	64	49	58	45	..	..	..	..	..	..	..	..	98	..	..	..	..	..	..	43	44	48	..	..	71	48						
	449	Satyendra Mohan Ghosh.	Bengal.	Hindu.	25	67	47	45	29	155	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	37	45	..	..	68	47							
121	395	K. G. Santhanagopala Krishnan.	Madras.	Hindu.	80	71	51	41	48	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	37	50	..	..	82	45							
122	397	S. Krishnaaswami.	Madras.	Hindu.	65	84	61	52	44	95	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..							
123	419	V. Doraiswamy Ayyar.	Madras.	Hindu.	50	74	49	47	52	90	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	55	46							
124	46	Des Raj.	Sind.	Sikh.	40	66	58	26	81	80	..	..	..	..	..	..	..	..	129	..	..	..	..	..	..	..	..	..	..	..	..							
	57	C. S. Ramakrishnan.	Madras States.	Hindu.	70	77	60	56	43	90	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..							
	461	Syed Nasir Uddin Hyder Hozwi.	Bangal.	Muslim.	30	70	53	35	68	80	..	..	113	127	..	..	..	..	90	..	..	..	..	..	..	..	36	24	..	..	..							
127	198	Aziz Ahmed Bhattye.	Punjab.	Muslim.	75	64	42	32	57	120	..	..	..	..	..	..	..	..	108	65	36	..	56	..	..	..	36	47	..	..	..							
128	89	Syamasundar Rath.	Orissa.	Hindu.	70	91	44	47	58	95	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	30	46	..	..	..	..							
129	193	Bawa Bhupindar Singh Bhalla.	Punjab.	Sikh.	45	63	52	49	62	115	..	..	..	..	..	..	..	..	136	..	..	..	..	..	..	..	..	..	..	..	..							
130	322	Pradyumna Chandra Joshi.	U. P.	Hindu.	65	88	49	39	57	75	..	..	..	..	..	..	..	..	..	98	25	..	46	..	..	64	44	..	..	..	..							
131	426	Ali Muhammad Abdullah.	Bangal.	Muslim.	70	100	48	58	34	100	..	..	..	..	..	..	..	..	..	..	28	44	34	64	..	..	..	45	47	..	..							
132	106	Indubhusan Banerjee.	Bihar.	Hindu.	50	89	61	39	49	125	..	..	..	..	..	..	..	..	33	..	..	..	..	..	..	..	41	..	..	62	41							
	144	K. Nagabhushana Rao.	Madras.	Hindu.	20	79	56	18	52	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..							
134	270	S. A. Vaggar.	Punjab.	Muslim.	55	67	64	54	65	110	106	..	..	..	..	..	..	..	110	..	..	..	..	..	..	..	..	..	..	..	..							
135	194	Banwari Lal Kukar.	Punjab.	Hindu.	55	56	50	27	50	150	..	..	..	..	..	..	..	..	77	..	..	..	..	..	..	42	46	48	53	52	22							
	273	Vir Bhan Amar.	Punjab.	Sikh.	35	68	46	39	52	80	..	..	110	130	..	..	..	..	..	..	..	..	..	..	..	43	28	49	42	..	..							
138	413	V. Ponnuswamy.	Madras.	Hindu.	60	61	50	24	42	90	..	..	..	..	..	..	..	..	85	..	..	..	..	..	..	..	..	..	..	..	..							
	373	Syed Vigar Mohammad Naqvi.	U. P.	Muslim.	60	76	61	28	57	80	..	..	111	113	..	..	..	..	78	..	..	..	..	..	..	..	..	..	..	..	..							
139	153	A. C. Madhavan Nambiar.	Madras.	Hindu.	75	71	70	19	39	100	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	39	20	..	..	61	36							
140	250	S. R. Qutb.	Punjab.	Muslim.	40	90	41	31	67	95	..	..	129	97	..	..	..	..	71	..	..	..	..	..	..	..	..	..	..	..	..							
141	95	V. D. Gangal.	Bombay.	Hindu.	35	78	41	23	83	70	..	..	..	..	167	92	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..							
142	303	Lachman Das Bhargava.	U. P.	Hindu.	40	107	55	34	59	90	..	..	..	..	..	..	..	..	..	74	19	26	..	..	..	..	..	49	..	62	..							
143	223	Ratan Chand Mehra.	Punjab.	Hindu.	40	62	47	48	A	150	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	35	54	..	46	66	51							
	381	Om Prakash Trivedi.	U. P.	Hindu.	40	78	54	42	53	135	..	..	..	..	..	..	..	..	..	58	21	40	..	..	..	..	..	..	..	55	41							
145	125	Sudhir Kumar Roy.	Bihar.	Hindu.	75	78	50	38	46	75	..	..	..	..	..	..	..	..	..	93	36	..	..	..	..	31	45	..	..	60	39							
146	465	Kshitia Chandra Sen.	Bengal.	Hindu.	75	90	40	30	48	95	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	51	44	54	..	64	48							
147	145	K. S. Kameswara Rao.	Madras.	Hindu.	20	64	54	42	60	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..							
148	186	R. Sanjiva Row.	Madras.	Hindu.	40	75	47	37	65	80	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..							
	403	S. Srinivasan.	Madras.	Hindu.	55	98	47	52	53	50	..	..	..	..	..	..	..	..	..	90	35	..	56	..	..	..	..	..	..	72	59							
150	333	Digambar Rao Limaye.	U. P.	Hindu.	5	62	49	41	53	90	..	..	..	..	..	..	..	..	94	..	..	..	..	..	..	..	..	..	..	..	..							
151	302	Mirza Hamidullah Beg.	U. P.	Muslim.	60	63	43	28	44	175	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	45	..	..	..							
152	88	Gopinath Mohanty.	Orissa.	Hindu.	5	78	56	57	64	70	..	..	..	..	..	..	..	..	..	45	38	60	51	..	38	46	..	..	..	..	..							
	446	Gopal Chandra Dutt.	Bengal.	Hindu.	25	64	50	28	35	150	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	56	32	30	..	57	38							
154	356	Saiyid Wasi Raza.	U. P.	Muslim.	10	53	29	19	64	70	..	..	123	135	..	..	..	..	110	..	..	..	..	..	..	35	37	..	..	..	..							
155	200	Mohd. Sami Butt.	Punjab.	Muslim.	45	78	46	39	47	100	..	..	112	103	..	..	..	..	90	..	..	..	..	..	..	..	..	..	..	..	..							
156	202	Ch. Ali Ahmad.	Punjab.	Muslim.	60	67	34	29	55	95	115	77	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	48	..	60	39						
	224	Bhushan Mehra.	Punjab.	Hindu.	70	69	47	51	40	90	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..							
158	318	Nurul Hasan Hashmi.	U. P.	Muslim.	0	67	51	48	67	75	..	..	113	118	..	..	..	..	99	..	..	..	..	..	..	33	28	..	..	..	..							

[illegible]

[illegible]

Indian Civil Service, held in India (Delhi) in January 1937.

British History (Period 3).		General Economics.		Economic History.		Public Economics.		Political Theory.		Political Organization.		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.		Extra Num- erum.		Total.		Hand-writing deductions.		Final Total.		Remarks.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
100	20	200	30	100	31	100	32	100	33	100	34	200	35	100	36	100	37	100	38	100	39	200	40	200	41	200	42	200	43	200	44	200	45	200	46	200	47	200	48	200	49	200	50	200	51	200	52	200	53	200	54	200	55	200	56	100	57	100	58	100	59	100	60	100	61	100	62	100	63	Maximum marks— 1,800. Aggregate pass mark—750.		Total.		Hand-writing deductions.		Final Total.		Remarks.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Table of the results of the Competitive Examination for the

Serial No.	Roll No.	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	100	300
199	176	P. Ramaswami	Madras	Hindu	30	59	47	37	41	95	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..						
	389	Govinda Narayan Chatterji.	U. P.	Hindu	0	69	37	35	33	80	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	46	42	..	..	60	42						
201	242	Nazir Ahmad, I.	Punjab	Muslim	60	65	30	14	66	90	..	..	79	..	..	..	..	..	65	..	..	..	..	..	..	..	35	25	..	..	..	..						
202	96	Balyant Narayan Joshi.	Bombay	Hindu	0	81	37	37	78	90	..	..	..	..	..	..	..	..	..	70	..	..	49	56	..	..	..	..	..	..	..	..						
	450	Rathindra Narayan Ghosh.	Bengal	Hindu	20	53	41	28	34	115	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	51	35	27	49	28	64	29						
204	246	Pran Nath Bahl	Punjab	Hindu	30	71	26	25	43	120	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	39	31	29	23	26	58	30						
205	241	Bhagat Singh Mahotra.	Punjab	Sikh	40	67	43	29	59	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	44	..	..	60	32						
206	128	A. R. Seshadri Sarna	Madras	Hindu	35	66	29	49	53	105	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	46	..	..	..	..	..						
207	201	Ch. Mohammad Sadiq	Punjab	Muslim	25	46	37	22	58	95	71	75	..	..	..	..	..	..	78	..	..	..	..	..	..	..	24	46	..	..	..	..						
	408	T. S. Krishnamoorthy	Madras	Hindu	10	91	61	63	40	100	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..						
209	434	Bishnucharan Bagchi	Bengal	Hindu	5	84	64	41	39	100	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	31	..	..	..	..	36						
210	78	Abdul Magni	Assam	Muslim	15	71	42	43	32	48	..	..	..	..	..	..	..	..	..	..	..	31	39	..	..	..	..	..	..	36	55	48						
211	196	Baldev Kumar	Punjab	Hindu	15	51	38	28	50	60	..	..	..	..	..	..	..	..	63	..	..	..	..	..	..	43	40	40	..	49	26							
212	109	Sudhir Kumar Chaudhuri.	Bihar	Hindu	10	83	37	35	29	100	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	41	35	49	..	..	..	48						
213	290	Abdul Aziz	U. P.	Muslim	35	49	37	42	48	70	..	..	59	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..						
214	254	Sheikh Musaharraf Ali	Punjab	Muslim	5	91	46	37	59	60	..	..	69	..	..	..	..	..	57	..	..	..	..	..	..	..	28	34	..	..	..	..						
215	112	Jatindra Nath Banerjee.	Bihar	Hindu	5	77	34	36	32	35	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	49	29	..	..	42	64	45						
216	439	Sunit Mohan Chakrabarti.	Bengal	Hindu	60	39	59	17	31	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	52	29	47	..	43	..	43						
217	289	Abdul Mannan Khan	U. P.	Muslim	15	41	35	9	50	90	..	..	..	..	..	..	..	..	74	..	..	..	..	..	..	..	32	..	40	39	55	30						
218	303	Choudhri Nisar Ahmed.	Punjab	Muslim	5	70	27	39	50	30	..	..	69	126	..	..	..	..	65	..	..	..	..	..	..	38	38	..	..	..	..	..						
219	248	Vishwa Nath Parry	Punjab	Hindu	50	41	32	30	49	50	..	..	..	..	71	57	..	..	88	..	..	..	..	..	..	44	28	..	..	..	..	..						
220	227	Mian Shah Din	Punjab	Muslim	10	74	43	39	51	25	..	..	90	..	..	..	..	..	59	..	..	..	..	..	..	..	..	26	..	23	..	..						
221	80	Bhupendra Narayan Das.	Assam	Hindu	5	65	40	44	51	60	..	..	..	..	..	..	..	..	21	..	..	..	..	..	..	..	37	..	..	..	..	..						
222	407	T. Sadasivan	Madras	Hindu	0	76	48	32	40	45	..	..	..	..	..	..	..	..	..	62	..	46	35	..	..	..	14	..	..	..	..	..						
	439	Jyotima Kumar Bhattacharjee.	Bengal	Indian-Xian.	5	73	48	43	30	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	38	28	..	..	32	55	38						
224	123	Mohammad Abu Rasheed.	Bihar	Muslim	20	50	41	30	53	95	..	..	..	..	..	..	..	..	75	..	..	..	24	..	..	..	..	..	..	..	..	..						
225	457	Ghohar Mowla Quadri.	Bengal	Muslim	20	50	39	29	46	80	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	40	25	38	..	..	56	33						
226	233	Mohd. Sharif Gulzar Qureshi.	Punjab	Muslim	10	67	42	51	57	15	..	..	..	..	..	..	..	..	82	..	..	..	..	..	..	..	..	..	..	..	..	..						
227	343	Mohd. Hamidullah Khan.	U. P.	Muslim	15	56	47	40	64	40	..	..	..	..	..	..	..	..	77	64	2	..	..	..	..	..	22	43	..	..	..	..						
228	342	Mohammad Umar Khan.	U. P.	Muslim	15	63	25	25	56	75	82	..	..	..	..	..	..	..	87	..	..	..	..	..	..	..	..	..	..	..	..	..						
229	140	M. Anwaruddin Sheriff.	Madras	Muslim	30	63	38	14	41	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	28	50	..	..	65	41						
	268	Ch. Mohd. Yunus Uppal.	Punjab	Muslim	0	33	40	33	40	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	19	29	..	..	..	..						
331	171	S. Bhiman	Madras	Hindu	5	84	40	21	54	80	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	56	..	55	33	..	49						
232	338	Jagat Behari Lal Mathur.	U. P.	Hindu	25	60	38	31	47	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	50	25						
233	301	Syed Mohammad Baqar.	U. P.	Muslim	0	56	49	42	63	80	..	..	73	..	..	..	..	..	63	..	..	..	..	..	..	..	38	..	..	..	54	..						
234	32	Sheikh Mohd. Abdul Hamid.	Ajmer-Merwara.	Muslim	10	56	40	20	42	80	..	..	116	..	..	..	..	..	..	..	..	..	..	..	..	..	32	..	41	19	44	..						
235	262	Syed Fayyaz Haider alias Saif Haider.	Punjab	Muslim	10	69	36	14	54	70	69	41	..	..	..	..	..	..	69	..	..	..	..	..	..	..	..	28	..	..	..	..						

Indian Civil Service, held in India (Delhi) in January 1937.

British History (Period 3).		General Economics.		Economic History.		Public Economics.		Political Theory.		Political Organization.		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.		Extra Num. rum.		Total.		Hand-writing detection.		Final Total.		Remarks.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Table of the results of the Competitive Examination for the

Serial No.	Roll No.	Name.	Province.	Community.	Obligatory.										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.	Arabic Language.	Arabic Civilization.	Persian Language.	Persian Civilization.																				
					150	150	100	100	100	300	200	200	200	200																				
					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		
236	167	Murkot Ramany	Madras	Hindu	40	76	46	35	52	115	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	30	34			
237	443	Arunendu Das Gupta	Bengal	Hindu	20	63	31	43	39	90	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	35	21	..	..	..	..			
238	361	Chhote Lal Shukla	U. P.	Hindu	10	66	47	31	51	50	..	..	..	..	..	..	..	..	121	63	..	..	..	..	23	11	..	..	..	..	..			
239	91	M. S. Baichwal	Bombay	Hindu	5	58	34	28	33	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	34	13	..	..	..	..	..			
240	466	Debendra Chandra Sen.	Bengal	Hindu	25	72	10	32	31	59	..	..	..	..	..	..	..	..	..	..	..	..	..	..	24	19	27	41	19	33	43			
241	209	Abdur Rashid Faruqi.	Punjab	Muslim	10	89	24	30	56	15	48	51	..	..	..	..	..	..	61	..	..	..	..	..	..	..	..	..	..	..	..			
242	183	Ali Asghar	Punjab	Muslim	10	62	35	28	63	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	37	23	28	..	..	33	19			
243	172	S. Ramamurthy Sastri.	Madras	Hindu	25	81	43	33	43	15	..	..	..	..	..	..	..	..	..	73	22	22	..	..	..	..	..	..	..	43	35			
✓ 244	251	Ranjit Singh	Punjab	Sikh	15	57	38	28	53	75	..	..	..	..	..	..	..	..	37	..	..	..	..	..	24	4	..	24	19	..	..			
245	111	V. Ratnam	Madras	Hindu	20	69	47	28	41	35	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
246	282	Mohd. Sultan Bukhari.	Delhi	Muslim	20	46	34	35	49	85	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
247	180	Abdul Bari	Punjab	Muslim	20	38	37	23	54	60	..	62	49	..	..	..	..	..	55	..	..	..	..	..	..	27	..	..	..	..	..			
248	433	B. Nath Mukhopadhyay.	Bengal	Hindu	20	48	40	35	25	75	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	20	..	11	..	..	..			
249	220	M. Ata	Punjab	Muslim	5	38	23	31	55	30	..	70	..	..	..	..	..	..	67	41	..	30	25	..	..	..	..	..	..	..	..			
✓ 250	114	Gulab Chand	Bihar	Muslim	5	67	37	27	35	25	..	62	54	..	..	..	..	..	73	..	..	..	..	..	..	..	..	..	..	..	..			
251	142	K. J. Kodanda Ramen Iyer.	Madras	Hindu	10	63	32	24	54	75	..	..	..	..	..	..	..	..	61	6	..	..	..	..	..	32	..	..	..	..	..			
252	223	Sardar Akhtar Ali Khan.	Punjab	Muslim	0	58	11	17	55	25	..	80	100	..	..	..	..	..	77	..	..	..	..	..	..	8	..	..	..	..	..			
253	134	C. R. Govindarajan	Madras	Hindu	5	56	51	43	47	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
254	163	K. Puttiappan	Madras	Hindu	10	53	38	12	55	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	36	42	36	..	..	51	..			
✓ 255	214	Indar Dev	Punjab	Hindu (Deprived).	0	54	41	23	47	45	..	..	..	..	..	..	..	..	..	..	..	..	..	..	32	9	22	..	..	61	18			
256	384	Madan Mohan Lal Verma.	U. P.	Hindu	5	69	46	17	40	15	..	..	..	..	..	..	..	..	48	0	..	27	..	..	..	..	32	..	A	42	..			
257	215	Syed Imtiaz Husain	Punjab	Muslim	0	49	26	23	51	80	..	..	..	..	..	..	..	..	57	..	..	..	..	..	A	17	..	..	..	44	27			
258	374	Saiyid Sarwar Ali	U. P.	Muslim	10	54	26	25	58	75	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
259	90	Syed Ghulam Ahmad Nabi.	Orissa	Muslim	0	34	17	20	31	25	..	31	30	..	..	..	..	..	..	..	..	..	..	..	16	24	..	..	..	42	18			
260	441	Jyotirmoy Datta	Bengal	Hindu	5	44	30	30	26	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
261	97	V. N. Kelkar.	Bombay	Hindu	15	71	50	38	65	A	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
262	33	Rajeshwar Das Khanna.	Punjab States.	Hindu	15	54	44	41	34	A	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	A	A	A			
263	264	Sultan Ahmad	Punjab	Muslim	55	59	A	A	A	A	..	..	..	..	..	..	..	..	A	..	..	..	..	..	..	..	A	..	..	A	A			
	360	Ambe Dat Pande	U. P.	Hindu	25	50	49	0	A	A	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	A	A			

* A * denotes absence from the examination.

Indian Civil Service, held in India (Delhi) in January 1937.

British History (Period 3).		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.		Extra Numerum.		Remarks.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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H. HAMILL,

Secretary, Federal Public Service Commission.

TABLE OF THE RESULTS OF THE COMPETITIVE EXAMINATION FOR THE
INDIAN CIVIL SERVICE, HELD IN INDIA (RANGOON) IN JANUARY 1937.

Secretary, Federal Public Service Commission.

Review of the work of the candidates at the Indian Civil Service Examination, 1937.

The examination was held from the 5th January to the 30th January, 1937. The number of candidates who applied for admission to the examination was 479 for Delhi Centre and 80 for Rangoon. Only 264 and 16, however, appeared at the examination in Delhi and Rangoon, respectively, the remainder either having been rejected by the Federal Public Service Commission or having spontaneously withdrawn. The numbers of candidates belonging to the several communities were :—

(a) Rangoon examination,

Buddhist	9
Anglo-Burmian	4
Hindu	4
Christian	2

(6) Delhi examination.

Hindu	146
Muslim	110
Anglo-Indian	3
Indian Christian	5
Sikh	9
Jain	2

The numbers from the several provinces were :—

Madras	445
Bombay	111
Bengal	26
United Provinces	557
Punjab	76
Burini	116
Bihar	111
Central Provinces	2
Assam	5
Orissa	4
Sind	4
Delhi	6
Mysore State	1
Ajmer-Merwara	1
Baluchistan	2
Western India States	1
Punjab States	1
Madras States	8
Deccan States	2
Mewar State	1

2. The interviews in Delhi began on the 8th January and ended on the 29th January, 1937. The candidates for the Rangoon examination were interviewed in Rangoon on the 9th January, 1937.

3. The following table shows the number of candidates in each subject obtaining various percentages of the maximum mark and indicates how many ill-prepared candidates appeared for this examination—a conclusion strikingly corroborated by the *vivd wee* Board's findings.

Indian Civil Service Examination, 1937.

(Rangoon Centre.)

1 Subject.	2 Total No. of candidates.	3 No. of candidates who secured over 66 per cent, marks.	4 No. of candidate* who secured 50 per cent. or more but not more than 66 per cent, marks.	5 No. of candidates who secured less than 50 per cent, marks.	6 No. of candidate* who secured less than 25 per cent, marks.
Essay	16	1	1	14	9
English	16	...	9	7	...
General Knowledge	16	...	7	10	...
Everyday Science	16	...	6	10	1
Vernacular or European Language.	18	1	2	13	4
Viva voce	16	4	2	10	4
Pali Language	1	1	...	...	...
Pali Civilization	1	1	...	...	...
Vernacular Literature (Burmese).	3	2	1	...	...
English Literature (General)	5	...	2	3	...
English Literature, Period 1	5	...	...	5	2
English Literature, Period 2	2	...	...	2	...
English Literature, Period 3	2	...	...	2	...
Indian History, Period 1	4	...	2	2	...
Indian History, Period 2	4	...	...	4	...
Indian History, Period 3	4	...	1	3	...
Modern European History, Period 1.	11	1	4	6	1
Modern European History, Period 2.	12	1	3	8	...
British History, Period 1	14	3	0	2	...
British History, Period 2	14	...	2	12	...
British History, Period 3	9	...	4	5	1
Economic History	1	...	...	1	...
Political Organization	5	...	3	2	...
Lower Chemistry	3	1	8	...	...
Higher Chemistry	3	...	1	2	...
Lower Physics	3	...	...	3	1
Higher Physics	1	...	...	1	...
Psychology	1	...	1	...	...

Indian Civil Service Examination, 1937—contd.
(Rangoon Centre)—*contd.*

1	2	3	4	5	6
Subject.	Total No. of candidates.	No. of candidates who secured over 60 per cent. marks.	No. of candidates who secured 50 per cent. or more but not more than 60 per cent. marks.	No. of candidates who secured less than 50 per cent. marks.	No. of candidates who secured less than 25 per cent. marks.
Extra Numerum—British History.	1	...	1	...	...
Extra Numerum—Geography	14	...	3	11	1
(Delhi Centre.)					
Essay	264	6	32	226	12;
English	264	121	110	133	2
General Knowledge .	263	14	119	130	3
Everyday Science . . .	2(53	3	51	209	34
Vernacular or European Language.	261	13	125	93	2
Vird voce	260	22	40	198	66
Arabia Language. . . .	10	1	0	9	1
Arable Civilization . . .	13	2	4	7	1
Persian Language . . .	60	16	25	19	1
Persian Civilization . . .	42	9	26	7	2
Sanskrit Language . . .	8	4	3	1	...
Sanskrit Civilization . . .	7	...	5	2	...
Vernacular Literature . . .	86	3	23	60	4
English Literature (General) .	42	5	14	23	2
English Literature, Period 1 .	30	1	4	25	8
English Literature, Period 2 .	10	...	2	8	1
English Literature, Period 3 .	31	1	16	14	1
English Literature, Period 4 .	10	...	6	4	...
Indian History, Period 1 . .	45	2	19	24	4
Indian History, Period 2 . .	119	5	23	91	15
Indian History, Period 3 . .	98	14	16	68	10
Modern European History, Period 1.	36	5	15	16	2
Modern European History, Period 2.	34	3	11	20	2
British History, Period 1 . .	110	44	55	11	...
British History, Period 2 . .	114	11	20	83	4
British History, Period 3 . .	86	2	23	41	5
General Economics . . .	66	2	16	48	15
Economic History . . .	26	3	8	15	4

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1 Subject.	2 Total No. of candidates.	3 No. of candidates who secured over 66 per cent. marks.	4 No. of candidates who secured 50 per cent or more but not more than 66 per cent, marks.	5 No. of candidates who secured less than 50 per cent- marks.	6 No. of candidates who secured less than 25 per cent, marks.
Pulic Economics . . .	34	1	9	24	...
Political Theory . . .	52	9	20	30	...
Politic-ill Organization . . .	81	...	2ft	55	1
Law.	30	..	2	28	2
Moral Philosophy . . .	5	1	3	1	...
Metaphysics	3	1	1	1	...
Logie	3	...	1	2	...
Indian Philosophy . . .	4	2	1	1	1
Lower Mathematics . . .	40	1	5	34	13
Higher Mathematics (Pure) .	21	1	2	18	12
Higher Mathematics (Applied).	7	...	2	5	1
Lower Chemistry . . .	36	5	10	21	4
Higher Chemistry . . .	11	2	5	4	...
Lower Physics	44	3	5	30	15
Higher Physics	18	2	0	10	3
Lower Botany	9	...	4	5	1
Higher Botany	5	...	2	3	1
Lower Geology	1	1	...	...	...
Lower Physiology . . .	1	...	...	1	1
Higher Physiology . . .	1	...	...	1	1
Lower Zoology	5	...	...	5	4
Higher Zoology	3	...	...	3	1
Astronomy	1	...	...	1	...
Statistics	5	...	1	4	2
Psychology.	5	1	3	1	1
Physical Anthropology . .	1	...	...	1	...
Social Anthropology . . .	10	...	1	9	4
Extra Numerum—British History.	38	3	23	12	...
Extra Numerum—Geography.	213	6	44	164	19

4. The following is a summary of the reports of the examiners :—

1. *Essay*.—The work submitted from Burma was more careful than that from India. Of the 264 candidates appearing in this subject in India the examiner found that 141 were quite unfit for an examination of this standard and only 10 whose work really rose above the average. The favourite topic was the socio-economic one about village industries in India. Some of the essays on the subject showed a lively interest in, and an accurate knowledge of, the problems concerned but far too many were full of irrelevant and wearisome padding which detracted from any value they had. Candidates must understand that they do not win marks by their 'much speaking' and that in literary composition compression is the beginning of wisdom.

Average percentage 42.

2. *English*.—The level of the work in English was higher than in Essay, but once again the number of papers of outstanding merit was disappointingly small. Candidates have but little idea of the real meaning of a precis. This year some paraphrased the passage, some made extracts from it and some misunderstood it. Few understood the poem or its metre. The agricultural question attracted many.

Average percentage 50.

3. *General Knowledge*.—The general level was high though many candidates did not come up to the examiner's expectation.

Average percentage 50.

4. *Everyday Science*.—The answers were disappointing. No question was attempted by less than 14 per cent, of the candidates—an indication that the paper was not too difficult. The answers, however, indicated that most of the candidates lacked a general interest in the world around them and read little.

Average percentage 39.

5. *Vernacular Language*.—It is impossible to generalise about the work in this subject. Candidates offered 10 languages and their work came under the valuation of 10 examiners each with a standard of his own. How widely their standards varied is revealed by the following table. Most of the examiners agreed that the vernaculars in their present state are unequal to the task of expressing idiomatically the meaning of the passage set for translation from English.

The table below shows the examiners' estimate of the work they had to value and the average percentage of the marks they awarded.

German	.	.	.	.	Poor	.	.	.	.	19
French	.	.	.	.	"	.	.	.	.	24
Italian	.	.	.	.	»	«	.	.	.	27
Bengali	.	.	.	.	"	.	.	.	.	38
Burman	.	.	.	.	Moderately good	.	.	.	.	40
Malayalam	.	.	.	.	Good	.	.	.	.	46
Kanarese	.	.	.	.	»	*	.	.	.	47
Sindhi	.	.	.	.	.	.	.	.	.	47
Tamil	.	.	.	.	.	.	.	.	.	49
Hindi	.	.	.	.	.	.	.	.	.	50
Oriya	.	.	.	.	"	.	.	.	.	57
Telegu	.	.	.	.	»	.	.	.	.	68
Urdu	.	.	.	.	"	.	.	.	.	69
Marathi	.	.	.	.	Very good	.	.	.	.	64
Assamese	.	.	.	.	"	.	.	.	.	66
Punjabi	.	.	.	.	»	.	.	.	.	68

The Public Service Commission are considering what steps they can take by moderation or otherwise, to remedy this somewhat disconcerting inequality of standards in this compulsory subject,

(k *Arabic Language*.—Most of the candidates offering this subject had a poor knowledge of the language and many were 'unable to express themselves in good English'. The standard attained was much below legitimate expectation.

Average percentage 48.

7. *Arabic Civilization*.—The work was generally good but the maps submitted showed that very hazy ideas abound about geography.

Average percentage e9.

8. *Persian Language*. The level reached was disappointing. In the third paper many candidates used the same matter to answer questions 1 and 2, indicating that they brought to the examination hall recollections of a stock theme treated at home or in school.

Average percentage 37.

9. *Persian Civilization*.—As in the corresponding Arabic paper the knowledge revealed of the geography of the country was disappointing but several candidates showed a good knowledge of the literary history.

Average percentage 57.

10. *Sanskrit Language*.—The Examiner reports that the translations from English into Sanskrit were much superior to those from Sanskrit into English. Few were able to grapple satisfactorily with the Veda and the Nirukta passages.

Average percentage 67.

11. *Sanskrit Civilization*.—The first paper which required an exact knowledge of Sanskrit scholarship evoked satisfactory answers from only one candidate. The answers to the second paper though more satisfactory, showed that, though most had read the subject widely, few were capable of an original judgment, for which practically every question in the paper called.

Average percentage 52.

12. *Pali Language*.—Only one candidate took this subject. The examiner says his work was 'brilliant'.

percentage 74.

13. *Pali Civilization*.—The; one candidate showed a fair acquaintance with modern critical opinion.

percentage e9.

1-1. *English Literature (General)*.—Both papers required a knowledge of the most prominent English authors and should have presented little difficulty to a candidate who had read with intelligence the English part of the Arts syllabus of any Indian University. Of the 47 candidates offering this subject the first 10 in order of merit displayed real gifts for both reading and writing. On the other hand far too many tried, with a superficial knowledge of the subject and little or no command of English, to score marks. Tlndio-matic expression and bad spelling were both all too common.

Average percentage 47.

1e, *English Literature, Period I*.—The work was disappointing, coming (as it is supposed to come) from candidates who have made a special study of the period.

Average percentage 47.

1e. *English Literature, Period II.*—Here again the results were disappointing. The question paper gave candidates abundant opportunity of revealing their familiarity *with the greatest works of the period and this was what few had. Most of them reproduced more or less well assimilated second hand impressions.

Average percentage 30.

17. *English Literature, Period III.*—The answers to this paper were much more satisfactory. The best candidates lost marks through a lack of examination technique which prevented them from spacing their answers properly. Out of a total of 31, 7 or 8 were definitely unfit to offer this paper. The first question, with its gobbets, was a stumbling block to most.

Average percentage 48.

18. *English Literature, Period IV.*—The general level was good. The least satisfactory answers were those to questions 1 and 2 which required the most specific knowledge.

Average percentage 50.

It cannot be too strongly impressed on candidates that what the Commission's examiners (in the last 5 papers reviewed) expect is a first hand knowledge of the works of the greatest authors.

19. *Vernacular Literature.*—(a) *Punjabi.*—The candidates preferred purely critical to textual questions, i.e., the vague to the precise. The standard attained was good.

Average percentage 70.

(b) *Burmese.*—The general level was good.

Average percentage 65.

(c) *Tamil.*—The level attained was moderate. The work of the only two candidates fluctuated between very good and very poor. Spelling mistakes were too common.

Average percentage 1e.

(d) *Bengali.*—The results were; deplorable. The Examiner had never read 'such miserably poor papers for any higher Examination'.

Average percentage 14.

(e) *Hindi.*—The scripts were disappointing. The candidates showed little knowledge of standard works. Their translations and explanations were inaccurate.

Average percentage 39.

(f) *Urdu.*—Of the candidates only one secured more than 60 per cent. More than half seemed to have made no preparation for this paper. The characteristics of most of the scripts were vague prolixity and exaggeration. Misspellings in both Urdu and English were too common.

Average percentage 41.

20. *Indian History, Period I.*—The paper offered plenty of option to allow the specialist to display the riches of his knowledge. Few answers showed any familiarity with the sources. Candidates obviously rely too much on routine text books deriving from them generalizations which they have not thought of corroborating; in fact they appear not to realise the importance of sifting evidence. Mistakes in English grammar and idiom abounded and few had any conception of how to construct and marshal

paragraphs. It is a melancholy fact that some candidates not only showed no sense of the importance of dates but even confused epochs and eras.

Average percentage 17.

21. *Indian History, Period II.*—The answers were disappointing. Despite the recurrence in the past of map questions the scripts abounded in deplorable errors about the broadest facts of Indian topography. Many of the candidates were obviously unfit for even a 3rd class in any ordinary University, yet they chose to present themselves for this examination. As in the answers to the former paper there was a notable inability to present facts in an orderly and reasonable sequence. So markedly does this defect mar the work of candidates that the Examiner recommends the doubling Q: the marks assigned to English Composition.

Average percentage 39.

22. *Indian History, Period III.*—The standard reached was 'fair'.

Average percentage 45.

23. *Modern European History, Period I.*—There was a marked improvement in the map drawing submitted by the Burma candidates. In general, though a more detailed knowledge of the subject is desirable the work was moderately well done. The examiner complains that some candidates had obviously not studied the earlier part of the period prescribed, and that many did not read, or, having read, did not understand the questions they were attempting and felt satisfied with vague proximity on some cognate topic; but completely missed the specific point at issue.

Average percentage 61.

24. *Modern European History, Period II.*—Too many of the candidates were 'one book' men. There was a marked ignorance of standard works dealing with the period from 1870 to the present day. Of 45 only 4 candidates reached a real 1st class standard.

Average percentage 46.

26. *British History, Period I.*—The general standard of the answers was very good, but candidates seemed not to have devoted as much attention to the socio-economic part of the subject, as it deserves and requires.

Average percentage 62.

26. *British History, Period II.*—The work was of average merit.

Average percentage 46.

27. *British History, Period III.*—The answers showed a preference for aspects of the subject in the order, constitutional, economic, diplomatic and social. Candidates pay far too little attention to the latter two. The best candidates had obviously read some of the many modern Victorian biographies.

Average percentage 46.

28. *General Economics.*—The examiner finds the results were more satisfactory than previously.

Average percentage 39.

29. *Economic History.*—The general level was 'fairly good', but at least three of 27 candidates have obviously made no preparation for the paper.

Average percentage 46.

30. *Public Economics.*—The level attained was 'satisfactory'—but, the examiner reports 'many seem to think if they know the general theory of Economics, they will be able to score marks in Public Economics'.

Average percentage 46.

31. *Political Theory*.—The general standard was satisfactory but few scripts revealed any originality. There was too much memory work and quotation from text books.

Average percentage 48.

32. *Political Organization*.—The candidates generally showed a deplorable ignorance of current events, some making the wildest statements about Hitler and the League of Nations. It is not unreasonable to expect students of this subject to show more familiarity with the contents of the 'more sober and accurately informed journals of the day'.

Average percentage 44.

33. *Law*.—The Examiner thinks that the candidates have attained a higher standard than the Indian University Law candidates whose work he has seen. He complains of vague and inaccurate ideas of the sovereignty of Indian States, and of lack of precision in the answers to question 7 in the 1st paper.

Average percentage 34.

34. *Moral Philosophy*.—Four candidates offered this subject. Their work was good.

Average percentage 54.

35. *Metaphysics*.—The general standard was good. Candidates had a tendency to write 'round' rather than 'on' the questions they tackled and seem not to have made an adequate study of the currents of Greek thought.

Average percentage 54.

36. *Logic*.—The level reached by the 3 candidates was 'moderate'. The best candidate had not only a competent grasp of the subject but a faculty for orderly, vivid, and effective presentation of his knowledge.

Average percentage 49.

37. *Indian Philosophy*.—Four candidates appeared—three were 'good' and one 'bad'.

Average percentage 5e.

38. *Lower Mathematics*.—The work was moderately good but it is strange that few tried question 9 in the second paper.

Average percentage 33.

39. *Higher Mathematics (Pure)*.—The standard reached was 'bad'.

Average percentage 28.

40. *Higher Mathematics (Applied)*.—The standard reached was 'good'.

Average percentage 42.

41. *Statistics*.—The standard reached was 'moderate'.

Average percentage 36.

The candidates appeared to be unable to apply their knowledge of statistical methods to current Economic problems and thus not to realise the prime purpose of statistical analysis.

Average percentage 36.

42. *Lower Chemistry*.—The level attained was fairly good, but the answers to the question on alkali manufacture were in view of the popularity of the question, disappointing.

Average percentage 49.

43. *Higher Chemistry*.—The standard reached is good. There is a marked improvement in the study of Inorganic chemistry.

Average percentage 52,

44. *Lower Physics*.—The general level reached was 'rather low'. The candidates obviously expected more opportunity of showing a knowledge of book work and less of a power to think for themselves,

Average percentage 29.

45. *Higher Physics*.—The general level was 'good' specially in Paper II which exacted some knowledge of the more recent developments in physics.

Average percentage 44,

46. *Lower Botany*.—The average work was 'moderate'. Two of the nine candidates were 'good'. The rest were unable to think for themselves; their drawings were poor; they cited irrelevant fact; they made many mistakes in both spelling and grammar.

Average percentage 45.

47. *Higher Botany*.—One out of 4 candidates answered to the point. The rest were irrelevant and verbose.

Average percentage 42.

48. *Lower Zoology*.—The results were disappointing. The candidates frequently misunderstood the questions and used loose unscientific terms to express what they did know.

Average percentage 23.

49. *Higher Zoology*.—The knowledge displayed by the scripts was hazy, and the writers tried by circumlocution to conceal ignorance.

Average percentage 29.

50. *Lower Geology*.—The quality of the answers declined. The answer to the physiographical question was 'very good', to the palaeontological * 'good' to the petrological 'moderate' *.

Average percentage 68.

51. *Lower Physiology*.—The candidate apparently tried to use his imagination to supplement the information he had derived from a text book on the subject—but did not quite succeed.

Mark 13 per cent.

52. *Higher Physiology*.—The candidate had a muddled idea of what he had read in a text book and a muddled idea of the meaning of the words he used.

Mark 7 per cent.

53. *Astronomy*.—One candidate omitted this subject too. He had little knowledge of Astronomy and little of expression.

Mark 28 per cent.

54. *Social Anthropology*.—The results were disappointing. The candidates had learnt one set of facts and another of theories but were unable to establish any co-relation between them. One saw no difference between a culture-complex and a complex culture. Another thought it a disease from which Herr Hitler suffers. There was too common a tendency to try to cloak ignorance with periphrasis.

Average percentage 31.

e5. *Physical Anthropology*.—The candidate knew neither the fundamental principles nor the details of the subject, and had ' a careless and slovenly manner of presenting his ignorance '.

Mark 30 per cent.

5e. *Psychology*.—The scripts showed too great a tendency to try to supply the place of knowledge by circumlocution and conjecture. Not one candidate understood the 1st question though most seemed to have the knowledge which properly applied would have enabled them to answer it.

Average percentage 5e.

57. *Extra Numerum—British History*.—The impression left on the mind of the examiner by these scripts is one of fairly industrious mediocrity in moderate acquaintance with the elements of the subject without any wide reading or deep thinking and a lamentable ignorance of geography.

Average percentage 53.

e8. *Extra Numerum—Geography*.—In the opinion of the examiner not more than 20 out of 227 candidates offering this subject would have passed a high school certificate Examination in it. Few seemed even to have studied an atlas. In fact only 4 had any reasonable grasp of the subject.

Average percentage 41.

59. *Viva wee*.—260 candidates appeared before the Board, of whom 130 or 50 per cent, gained less than 100 marks. Though 110 qualifying mark is laid down for this point of the examination, nevertheless the Board had in mind a standard of minimum suitability to which they assigned 100 marks and no candidate who did not obtain at least this figure is in their opinion suitable for appointment.

e8. Candidates, i.e.) 2e per cent, obtained more than 100 but less than 350, i.e., half marks.

Thus there were only e2 candidates, or 24 per cent-, obtaining half marks and upwards. It is clear that at least half and possibly nearly 2/3 of the candidates were not suitable for the service and that at least half the time of the Board was wasted.

There were only e outstanding candidates getting 250 or upwards, while 1e more obtained 200 to 250.

2. Two points struck the examiners. Time and time again it was found that candidates who had offered one set of subjects for their university degrees up to the B.A. or M.A. standard abandoned the subjects in which they had graduated and offered other subjects which admittedly they could only study for a short time, in some cases for a period of months only. This was specially the case in Arabic, Persian, Urdu and other Eastern languages. The candidates frankly admitted that the marks obtained for those subjects in previous years had led to their decision. The system and not the candidates must be blamed, but some remedy should be devised by which such cramming can be penalized. Many candidates also had taken their degrees one, two and even three years before the examination. During the intervening period they had studied at home privately, often without assistance of any kind. More than one candidate informed the Board that it was easy, for example, to master history in this way, but their conversation showed that their study was often more an attempt to memorize some other person's comprehension of a subject than to master and think it out for themselves.

3. The number of candidates appearing with no better qualification than a III class degree was very large. Most of such candidates have no chance of success.

4. It was noticeable that a large number of candidates entered in their application forms that they played this or that game. In many cases such entries were incorrect and cross-examination showed that the applicants had no interest in and had never really played the games they claimed to have played,

5. The Board also noticed that the certificates of character produced by the candidates were still too often most uninformative. It cannot be too often repeated that such certificates when they reflect critically and accurately the record and character of the candidates are of the highest value to an interview board. It is depressing to record that for the most part the certificates issued at present contain so little information and are so lacking in critical appreciation of the candidates' merits as to be largely valueless.

