SUPPLEMENT

TO THE

Ceylon Government Gazette

PART I.

No. 6,915 — FRIDAY, DECEMBER 14, 1917.

CAMBRIDGE JUNIOR AND SENIOR SCHOOL CERTIFICATE EXAMINATIONS, 1918.

AN Examination will be held at Batticaloa, Colombo, Galle, Jaffna, Kandy, and Panadure on December 9, 1918, and following days, for the purpose of awarding Junior and Senior School Certificates, under the conditions set forth below, to candidates who are presented for examination from schools accepted for this purpose.

2. In order to be accepted, a school must be inspected by the Ceylon Education Department, and the report of such inspection must be approved by the Syndicate as satisfactory.

3. Government and grant-in-aid schools will not be accepted unless they have been registered by the Department as secondary schools or elementary schools with secondary department with courses of work leading up to the examination offered. Schools which are not Government or grant-in-aid schools will not be accepted, unless the Department is satisfied that their staff and equipment enables them to prepare classes for the examination offered.

4. Candidates will only be admitted to the examination who are members of a class which is going through the course of work prescribed for it; and it will be expected that all the eligible members of such classes will be presented. If it is desired not to present any individual pupil, the reasons for this must be approved by the Inspector. A complete list of the pupils in the Junior or Senior Certificate Classes, giving the dates at which each pupil joined the class and the school, will be required. If any member of the class has attended another recognized school since January, 1916 (in the case of Juniors since January, 1917), dates of admission to and departure from such schools should also be given. Pupils who will be under 14 years at the time of the examination will not be accepted for the Junior School Examination, and pupils who will be under 16 years of age at the time of the examination will not be accepted for the Senior School Examination.

5. A Junior School Certificate will be awarded to any candidate who (*a*) shall have attended one or more schools accepted for the purpose of School Certificates for at least *two* years continuously up to the time of the examination; and (*b*) shall have passed the Junior Examination under the conditions which are set forth below.

6. A Senior School Certificate will be awarded to any candidate who (*a*) shall have attended one or more schools accepted for the purpose of School Certificates for at least *three* years continuously up to the time of the examination; and (*b*) shall have passed the Senior Examination under the conditions which are set forth below.

7. Students *who already hold a Junior (or Senior) Certificate* and desire to pass in one or more additional subjects may enter at a subsequent Junior (or Senior) Examination for less than the minimum number of subjects necessary for a certificate, provided they continue to attend at an accepted school. The names of such students will not appear in the Class Lists, but if, being Juniors, they pass in any subject, or, being Seniors, they reach the standard of recognition in any subject, they will receive Supplementary Certificates. The fee for entrance for Junior candidates will be Rs. 25; for Senior candidates it will be Rs. 15, provided that not more than six papers in all are taken. Supplementary Certificates will not be awarded to candidates who have not stated in their forms of entry that they are candidates for Supplementary Certificates only.

8. Applications for the acceptance of a school for the School Certificate Examinations of December, 1918, must be made to the Director of Education not later than December 31, 1917.

9. Forms of entry may be had from the Director of Education in the second week in June. It is requested that Principals of schools will only apply for such number of forms of each kind (C, D, E, or F) as they actually require.

The names of candidates must be sent by the Principal of the school on these forms to the Director of Education so as to reach him not later than July 1, 1918. The forms must be accompanied by—

(1) Bank receipt for the fees credited to the account of the Director of Education in the Mercantile Bank of India, Ltd., Colombo, at the rate of Rs. 25 for each Junior and Rs. 30 for each Senior candidate entered. No separate fee is charged for detailed results.

N.B.—This amount should not, under any circumstances, be remitted to this office; only bank receipts will be accepted.

(2) The complete list of pupils in the Junior and Senior Certificate Classes referred to in paragraph 4 above.

(3) A certificate of birth or of baptism for every candidate.

In the case of candidates whose certificates have been previously sent and filed in the Education Office, a statement should be attached mentioning *the year, the examination for which they forwarded the certificates, and the centre at which they appeared for the examination.* Affidavits or certificates from the Register of Past Births will not be accepted *under any circumstances.*

If the name appearing in the Birth Register differs, either by alteration or addition, from the name by which the candidate is known, the parent or guardian should, before obtaining a certificate, apply to the Registrar-General or his Assistant for such alterations in the manner set forth in section 7 of Ordinance No. 23 of 1900.

A certificate of baptism should be a proper extract of the Baptismal Register, *i.e.*, an exact copy of the entry of the register should be made, and at the foot of the copy the incumbent of the church issuing it should certify to its correctness. Baptismal certificates will only be accepted if the candidate's baptism was within four months of his date of birth.

It is requested that the Principals of schools will see that the instructions with regard to the filling up of the forms are complied with. The candidate's full name must be given.

Principals should also examine carefully all certificates of birth or baptism, and should not forward any certificate which is not a proper and reliable document.

Note.—All letters and parcels should be addressed: "The Director of Education, Colombo."

10. Candidates are recommended to enter for the examination at the centre nearest to their schools. Schools presenting pupils for practical science examinations must provide themselves with properly equipped laboratories sufficient for all their candidates, who should not be entered at any other centre. Private candidates offering such subjects must satisfy themselves beforehand that satisfactory laboratory accommodation is available at the centre at which they propose to sit for the examination.

A candidate entered for examination at one centre will not be transferred to another centre.

11. Forms of entry will be accepted from July 2 to July 8, inclusive, on the Director's account being credited with an additional fee of Rs. 5 per candidate.

All entry forms received at the Education Office not accompanied by the Bank receipt and other necessary documents (*vide* paragraph 9) will be rejected.

12. Fees cannot be returned. If notice of withdrawal is received by the Director of Education more than sixteen days before the commencement of the examination, a voucher will be sent, which will be accepted in lieu of a part of the fee for another year. The Syndicate do not undertake to grant a similar voucher in any case in which the full sixteen days' notice has not been given. Applications made within sixteen days of the examination will, however, be considered if accompanied by a certificate from a qualified doctor stating that the candidate is physically unfit to take the examination. No applications received after the commencement of the examination can be considered. Students holding vouchers* must apply for fresh forms of entry and return them to the Director of Education on or before July 1, together with the Bank receipt and other necessary documents.

13. Candidates from schools which are suffering from any infectious disorder cannot be allowed to present themselves for examination.

Education Office,
Colombo, November 29, 1917.

E. B. DENHAM,
Director of Education.

JUNIOR SCHOOL CERTIFICATE EXAMINATION.

No one born before December 15, 1902, can be admitted to the examination for Junior Students under the ordinary conditions. Those born before December 15, 1902, may be admitted to the examination, but they can obtain a pass certificate only, and are not eligible for marks of distinction.

A candidate must satisfy the Examiners in—

(1) Writing from Dictation.

(2) Arithmetic. The use of algebraical symbols and processes is permitted. Questions will not be set on recurring decimals, on the process of obtaining G. C. M. by alternate division or of extracting cube root, on present worth or true discount. Questions will be set on elementary mensuration; these may involve the use of formulæ for the right-angled triangle, circle, cylinder, cone, sphere, right prism, pyramid. Candidates will be expected to give from memory only the formulæ for the triangle and the circle.†

(3) English Language and Literature (see section 2), together with at least (*a*) *three* of the twenty-two following subdivisions, *one of which must be from groups III. or IV.*, or (*b*) *four* of the twenty-two subdivisions selected from groups I. to V., provided that not more than *two* are from any one group:—

I.—(*a*) Section 1: Religious Knowledge.
(*b*) Section 3: History of England, or History of the British Empire, or Roman History.
(*c*) Section 3: Geography.

II.—(*d*) Section 4: Latin.
(*e*) Section 5: Greek.
(*f*) Section 6: French.
(*g*) Section 7: German.
(*h*) Section 8: Spanish.
(*i*) Section 9: Dutch.

III.—(*j*) Section 10: Geometry and Algebra.
(*k*) Section 10: Plane Trigonometry.
(*l*) Section 10: Elementary Mechanics.

IV.—(*m*) Section 11: Elementary Experimental Science.
(*n*) Section 12: Chemistry (Theoretical and Practical).
(*p*) Section 13: Physics (Theoretical and Practical).

V.—(*r*) Section 14: Botany.
(*s*) Section 14: Natural History of Animals.
(*t*) Section 14: Physical Geography.
(*u*) Section 15: Bookkeeping.
(*v*) Section 16: Drawing.
(*w*) Section 17: Music.
(*x*) Section 18: Needlework.

No student may enter for subjects in more than six sections, in addition to Writing, Arithmetic, and English, together with one subject from a seventh section, subject to the condition that this additional subject does not suffice for a pass in the section.

No candidate can take two papers set at the same time in the Time Table.

A certain number of marks will be assigned to Handwriting. Composition will be taken into account.

Section 1.—RELIGIOUS KNOWLEDGE:

Questions will be set on (*a*) the Gospel of *St. Matthew*, credit being given for a satisfactory knowledge of the original Greek; (*b*) *I Samuel*; (*c*) Old Testament History from the descent of Jacob into Egypt to the election of Saul; (*d*) the *Acts of the Apostles*, xiii.–xxviii.; (*e*) the Church Catechism, and the Order for Morning and Evening Prayer in the Book of Common Prayer. In New Testament subjects special papers in which the Douay version is used will be prepared for candidates who have been accustomed to the use of that version.‡

To pass in this section, students must satisfy the Examiners in (*a*), and in one of the subjects (*b*), (*c*), (*d*), (*e*), to each of which the same credit is given. No students will be examined in more than one of the subjects (*b*), (*c*), (*d*), (*e*).

Section 2.—ENGLISH LANGUAGE AND LITERATURE:

(*a*) *Essay.*—A choice of not less than three subjects to be allowed.

(*b*) *English Language.*—A special paper of questions on grammar and idiom, framed mainly so as to test the candidate's power to use the language correctly.

(*c*) *English Literature.*—Questions of a general, not a detailed, nature on the following:—(i.) Stevenson's *Treasure Island*, and (ii.) either *A Book of English Poetry*, Part I., pages 124–169, ed. Woodward (Pitt Press), or *The Children's Garland* (Macmillan), XXV–XXVII, XXXI–XLIX, LXXIII–LXXIX, LXXXVII–XCI.

To pass in this section, students must satisfy the Examiners in all the three subjects (*a*), (*b*), and (*c*). Throughout the section importance will be attached to clearness and correctness of style.

Section 3.—HISTORY AND GEOGRAPHY:

(*a*) Outlines of the HISTORY OF ENGLAND. The paper will consist of three divisions on the periods (i.) 1066–1485, (ii.) 1485–1688, (iii.) 1688–1832 respectively. Candidates may, if they wish, select questions from all three of the divisions, or may confine themselves to two or one of them.

(*b*) Outlines of the HISTORY OF THE BRITISH EMPIRE from 1492 A.D. to 1784 A.D.

(*c*) Outlines of ROMAN HISTORY from 133 B.C. to 44 B.C.

(*d*) GEOGRAPHY (see page 6).

To pass in this section, students must satisfy the Examiners in one of the subjects (*a*), (*b*), or (*c*), and also in (*d*). No student will be examined in more than one of the three subjects (*a*), (*b*), (*c*).

Section 4.—LATIN:

The papers will include (1) questions on grammar and parsing; (2*a*) passages for translation from selected books, with questions, and (2*b*), *as alternatives* to either or both of the portions of set books, unprepared passages for translation into English, with questions; (3) one or more easy unprepared passages for translation into English, a vocabulary of the less familiar words being given; (4) one or more unprepared passages of ordinary difficulty for translation into English; (5) easy sentences for translation into Latin; (6) a continuous passage for translation into Latin.

* Private candidates holding vouchers must obtain permission of the Director of Education beforehand (*vide* page 15).

† Candidates will be expected to know the following tables of weights and measures, namely, avoirdupois, linear measure, square measure, capacity (pints, quarts, gallons); and in the metric system, the metre, the gramme, and the litre, with their multiples and submultiples. Questions may be set involving the franc and the centime, the dollar and the cent.

‡ Candidates wishing to avail themselves of this arrangement must make a statement to that effect in their forms of entry; if they omit to do so, they cannot be allowed to take the special papers.

The selected books for 1918 are *Cæsar, de Bello Gallico IV., V.*, and *Virgil, Aeneid VIII.* Candidates may take any two, but not more than two, of the following portions of these books :—(i.) *de Bello Gallico IV.* 20–36, *V.* 4–23 ; (ii.) *de Bello Gallico V.* 25–58 ; (iii.) *Aeneid VIII.* 1–368 ; (iv.) *Aeneid VIII.* 369–731.

In order to pass in Latin, candidates must reach a certain standard in the subject as a whole, and must also satisfy the Examiners separately in accidence, and either in (3) or in (4). In order to gain the mark of distinction they must reach a higher standard in the subject as a whole, and must also reach a certain standard in (4) and in (6).

Section 5.—GREEK:

The papers will include (1) questions on grammar and parsing ; (2) passages for translation from selected books, with questions ; (3) one or more easy unprepared passages for translation into English, a vocabulary of the less familiar words being given ; (4) one or more unprepared passages of ordinary difficulty for translation into English ; (5) easy sentences for translation into Greek.

The selected books for 1918 are *Xenophon, Anabasis V.*, and *Scenes from the Antigone* (Clarendon Press). Candidates may take any two, but not more than two, of the following portions of these books :—(i.) *Anabasis V.* 1–4 ; (ii.) *Anabasis V.* 5–8 ; (iii.) *Scenes from the Antigone* 1–367 ; (iv.) *Scenes from the Antigone* 368–711.

In order to pass in Greek, candidates must reach a certain standard in the subject as a whole, and must also satisfy the Examiners separately in accidence, and either in (3) or in (4). In order to gain the mark of distinction they must reach a higher standard in the subject as a whole, and must also reach a certain standard in (4).

Section 6.—FRENCH. Section 7.—GERMAN :*

In sections 6 and 7 the paper will include (1) questions on grammar ; (2) an easy unprepared passage for translation into English, a vocabulary of the less familiar words being given ; (3) one or more unprepared passages of ordinary difficulty for translation into English ; (4) easy English sentences for translation into the language ; (5*a*) one or more continuous passages for translation into the language, and (5*b*), *as an alternative*, subjects on one of which candidates are to write a short composition in the language.

No candidate may take both (5*a*) and (5*b*).

In order to pass in French or German, candidates must reach a certain standard in the subject as a whole, and must also satisfy the Examiners separately in (1), and either in (2) or in (3). In order to gain the mark of distinction, they must reach a higher standard in the subject as a whole, and must also reach a certain standard in (3) and in (5).

For the examination in Spoken French and Spoken German, see page 6.

Section 8.—SPANISH. Section 9.—DUTCH :

The paper will include (1) questions on grammar ; (2) passages for translation into English ; (3) passages for translation into the language.

Section 10.—MATHEMATICS :

For all the subjects in this section, except Geometry, candidates will be provided in the examination with four-figure tables of logarithms.†

(*a*) GEOMETRY (see page 7).

(*b*) ALGEBRA.—The paper will consist of two parts. Candidates can pass in Algebra by doing sufficiently well in Part I.

PART I.—Questions may be set on elementary algebraic operations ; simple equations ; simple simultaneous equations containing not more than two unknown quantities ; easy problems leading to such equations ; fractions with numerical denominators ; simple questions on fractional and negative indices (formal proofs not being required), and on logarithms to base 10, with the use of four-figure tables. Questions may be set on resolution into factors, quadratic equations containing only one unknown quantity, problems leading to such equations, easy fractions, and simple graphs with applications. Questions will be set on graphs and their applications. Questions of an arithmetical character, capable of solution by algebraical processes, but not necessarily requiring the aid of such processes, may be set.

PART II.—Questions may be set on the solution of two simultaneous equations, one being linear and one being quadratic ; variation ; the gradient of a graph ; arithmetical progression and finite geometrical progression.

Candidates will be provided in the examination room with squared paper and four-figure tables of logarithms.† They should bring graduated rulers.

(*c*) PLANE TRIGONOMETRY, including the solution of triangles and the use of logarithms. Questions will not be set involving angles greater than 360 degrees. Some of the questions will be limited to easy numerical Trigonometry. Candidates will be provided in the examination room with mathematical tables.† They should bring graduated rulers and protractors.

(*d*) ELEMENTARY MECHANICS.—Questions may be set on the composition and resolution of forces acting in one plane at a point, including graphical representation of the same ; parallel forces ; moments of forces about a point ; the properties of the centre of gravity ; simple applications to the lever, the common balance, the inclined plane, and the block-and-tackle ; the composition and resolution of velocities and accelerations in one plane ; rectilinear motion with uniform acceleration, including gravity ; mass, momentum, dynamical measure of force. Candidates should bring graduated rulers and protractors. Formal proofs of the parallelogram of forces and of velocities and of the method of obtaining the resultant of two parallel forces will not be required.

To pass in this section, students must satisfy the Examiners in (*a*) and in (*b*).

‡Section 11.—ELEMENTARY EXPERIMENTAL SCIENCE (see page 9).§

Students will be expected to show that they have acquired a practical acquaintance with the elements of physical and chemical measurement, and with the properties of common substances as ascertained by simple experiments. Three papers will be set, one of which (Paper III.) will be a practical examination.

‡Section 12.—CHEMISTRY (Theoretical and Practical) (see page 9).§

‡Section 13.—PHYSICS (Theoretical and Practical) (see page 10).§

‡Section 14.—(*a*) BOTANY (see page 10).

(*b*) NATURAL HISTORY OF ANIMALS (see page 12).

(*c*) PHYSICAL GEOGRAPHY (see page 13).

To pass in this section, students must satisfy the Examiners in one of the three subjects. They may not take more than one of the two (*a*) and (*b*).

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* In writing German in the examination candidates will not be required to use German characters, but credit will be given for the use of German characters, provided that the writing is well formed and legible.

† The tables which will be provided are the Cambridge Four-Figure Mathematical Tables containing logarithms of numbers, of sines and cosines, of tangents and cotangents ; sines and cosines, tangents and cotangents. Copies can be obtained from Syndicate Buildings, Cambridge, price fourpence post free (or, bound in limp cloth, price eightpence post free).

‡ To pass in any Science section, candidates must satisfy the Examiners in both the theoretical and practical parts of the subject. The Science subjects can be taken at those centres only at which a suitable laboratory and apparatus can be provided. A special local fee may be charged.

§ Candidates will be provided with mathematical tables in all papers in Chemistry and Physics ; they may bring their slide rules in the practical examination in Chemistry and Experimental Science.

Section 15.—BOOKKEEPING. Questions will be set on Bookkeeping by double entry. Ruled forms will be provided for the candidates. *Alternative papers will be set.*

Section 16.—DRAWING :

(*a*) FREEHAND DRAWING, from a photograph or print. The examination will be designed to test the power of the candidates to draw accurately and intelligently. The drawings are to be executed in pencil.

(*b*) MODEL DRAWING.—The group will consist of one or two of the following solids, namely, the cube, square prism, cylinder, cone, triangular prism, square pyramid, hexagonal prism, and ring, together with some common object and a drawing board. The group is to be drawn in outline with pencil, and may be lightly shaded in pencil.

(*c*) GEOMETRICAL DRAWING.—Construction of triangles, quadrilaterals, polygons, and circles from given data. Division of the circle and measurement of angles. Proportional division of lines, including third, fourth, and mean proportionals. Construction of scales. Problems relating to areas. Construction of the ellipse, drawing of its tangents and normals. Drawing of curves defined by simple conditions and forms of arches. Inscribing and describing rectilinear figures and circles within and about others. Application of geometrical construction to patterns drawn to scale. Plans and elevations of simple right solids, such as cube, cone, cylinder, prism, sphere, square and hexagonal pyramid in easy positions. *Alternative papers will be set.*

(*d*) ELEMENTARY DESIGN.—Candidates will be supplied with a photograph or print of some characteristic portion of a plant, and will be required to fill a given space with a coloured design based thereon.

(*e*) MEMORY DRAWING.—Candidates will be required to draw simple objects from memory, the drawing to be executed in any medium. *Alternative papers will be set.*

(*f*) MECHANICAL DRAWING.—Drawing to scale, from given data, in plan, elevation, and section, tools and simple parts of machinery, such as hammerheads, spanners, callipers, rivets, and riveted joints, nuts and bolts, pipes and pipe joints, lubricators, shaft couplings, bearings, and connecting rods.

To pass in this section, students must satisfy the Examiners in two of the six subjects, of which (*a*) or (*b*) must be one. They may not take more than two of the four subjects (*c*), (*d*), (*e*), (*f*).

Section 17.—MUSIC :

Questions will be set on Notation ; on Scales, Clefs, Keys, Intervals, Time ; on the Marks and Terms generally employed in Music ; on Cadences. Exercises will be set, in not more than four parts, on Triads and their Inversions, and the Dominant Seventh without Inversions ; in these exercises the lowest part, with or without figuring, will be given, and passing notes may be used. *Alternative papers will be set.*

Section 18.—NEEDLEWORK (see page 14).

SENIOR SCHOOL CERTIFICATE EXAMINATION.

The examination will comprise the subjects included in the following four groups. Every student will be required to satisfy the Examiners in each of the three groups, I., II., III., and in one additional subject taken from one of these three groups, and also to attain a satisfactory standard in the examination as a whole. Marks obtained for subjects in Group IV. will be counted, if a satisfactory standard is attained in them, towards the total necessary for the obtaining of a certificate.

No subjects will be specified on the certificate except those in which the student reaches the Standard of Recognition, *i.e.*, a standard somewhat higher than the minimum required for passing in the subject. The Standard of Recognition will be at least equal to the standard hitherto required for a pass in the various subjects.

Students may be admitted as candidates for a pass certificate without limitation as to age, but those born before December 15, 1900, will not be eligible for inclusion in an Honours class or for marks of distinction.

No student may enter for more than 10 of the following 27 subjects, or for two papers set at the same time in the Time Table.

In each of the subjects 1, 11, 12, 25, candidates may enter for a single paper, and if they reach the Standard of Recognition, this will be stated on their certificates. In subjects 5, 6, 14, 19, candidates may not enter for a single paper.

GROUP I.

In order to pass in Group I., candidates must satisfy Examiners in the whole of the English section.

1. RELIGIOUS KNOWLEDGE :

The examination will consist of questions on (*a*) the Gospel of *St. Matthew*, credit being given for a satisfactory knowledge of the original Greek ; (*b*) the *Acts of the Apostles*, xiii.–xxviii. ; (*c*) *I Samuel ;* (*d*) Old Testament History : the Northern and Southern Kingdoms from the death of David to the death of Jeraboam II., with special reference to Kings I. and II., i.–xiv., Hosea, Amos (special attention should be given to the chief features in the teaching of the prophets and to the social and religious conditions in the period) ; (*e*) *Philippians* and *I Peter* (*alternative papers will be set*) ; (*f*) Litany and Offices for Communion, Baptism, and Confirmation in the Book of Common Prayer ; questions will be set on the history of these portions of the Prayer Book (special attention should be paid to the Nicene Creed) ; (*g*) the Church Catechism and the Order for Morning and Evening Prayer in the Book of Common Prayer. In New Testament subjects special papers in which the Douay version is used will be prepared for candidates who have been accustomed to the use of that version. See footnote ‡ on page 2.

To pass in Religious Knowledge, students must satisfy the Examiners in two of the six papers. They may offer three papers, but they will not be required to take more than two papers in order to obtain the mark of distinction. No student can take more than one of the papers (*b*), (*c*), (*d*), or both (*f*) and (*g*). Credit will be given for a knowledge of the Revised Version.

2. ENGLISH LANGUAGE AND LITERATURE :

(*a*) *Essay.*—A choice of not less than three subjects to be allowed.

(*b*) *English Language.*—A special paper of questions testing the candidate's knowledge and command of English. These may include questions on précis writing, paraphrase, and analysis of sentences.

(*c*) *Literature.*—Questions of a general, and not a detailed, nature on the following books. One from group (*a*), and any two from group (*b*) to be taken :—

(*a*)—(i.) Shakespeare, *Richard II.*
(ii.) Shakespeare, *Midsummer Night's Dream.*

(*b*)—(i.) *Essays from Addison*, ed. J. H. Fowler (Macmillan, As. 11).
(ii.) *Bacon's Essays* 1–28.
(iii.) Conan Doyle, *White Company.*
(iv.) *Anson's Voyages* (Dent & Co., Everyman's Library, Re. 1).

3. HISTORY :

(*a*) HISTORY OF ENGLAND.—The paper will consist of three divisions on the periods (i.) 55 B.C. to 1485 A.D., (ii.) 1485 to 1714, (iii.) 1714 to 1867 respectively. Candidates may, if they wish, select questions from all three of the divisions, or may confine themselves to two or one of them.

(*b*) HISTORY OF THE BRITISH EMPIRE, 1492 A.D. to 1784 A.D.

(*c*) Outlines of MODERN EUROPEAN HISTORY, 1815 A.D. to 1878 A.D., with questions on the most important events in the periods 1789 to 1814 and 1879 to 1910.

(*d*) ROMAN HISTORY, 133 B.C. to 44 B.C.

Only one of the above four papers may be taken.

4. GEOGRAPHY (see page 7).

GROUP II.

In order to pass in Group II., candidates must satisfy the Examiners in one of the subjects 5 to 10.

5. LATIN:

The papers will include (1) questions on grammar; (2*a*) passages for translation from selected books, with questions, and (2*b*), *as alternatives* for either or both of the set books, unprepared passages for translation into English, with questions; (3) one or more easy unprepared passages for translation into English, a vocabulary of unfamiliar words being given; (4) one or more unprepared passages of ordinary difficulty for translation into English; (5) easy sentences for translation into Latin; (6) one or more continuous passages for translation into Latin.

The selected books for 1918 are either *Cicero pro Roscio Amerino* or *Livy XXII.* 1–51; and either *Virgil, Aeneid VIII.*, or *Horace, Odes III.*

In order to pass in Latin, candidates must reach a certain standard in the subject as a whole, and must also satisfy the Examiners separately in (1), and either in (3) or in (4). In order to gain the mark of distinction they must reach a higher standard in the subject as a whole, and must also reach a certain standard in (4) and in (6). Two papers will be set.

6. GREEK:

The papers will include (1) questions on grammar; (2*a*) passages for translation from selected books, with questions, and (2*b*), *as alternatives* for either or both of the set books, unprepared passages for translation into English, with questions; (3) one or more easy unprepared passages for translation into English, a vocabulary of unfamiliar words being given; (4) one or more unprepared passages of ordinary difficulty for translation into English; (5) easy sentences for translation into Greek.

The selected books for 1918 are either *Thucydides I.* 24–87 or *Plato Crito* and *Euthyphro*; and either *Homer, Iliad IX., X.* 1–298, or *Sophocles, Antigone.*

In order to pass in Greek, candidates must reach a certain standard in the subject as a whole, and must also satisfy the Examiners separately in (1), and either in (3) or in (4). In order to gain the mark of distinction, they must reach a higher standard in the subject as a whole, and must also reach a certain standard in (4). Two papers will be set.

7. FRENCH.

Candidates may enter for either of the following syllabuses:—

A.—The paper will consist of (1) passages for translation into English; (2) two passages of English for translation into French: as an alternative to the harder passage, subjects will be given, on one of which candidates may write a short composition in French. In order to pass candidates must reach a certain standard as a whole. They may be rejected for weakness in either (1) or (2). In order to gain the mark of distinction they must reach a higher standard in the subject as a whole, and must also reach a certain standard in (1) and in (2). (For Spoken French see page 6).

B.—Candidates will be required to reach a certain standard both in Spoken French and in a paper which will consist of (1) passages of French for translation into English; (2) free composition in French. They may be rejected for weakness in either part of the paper. In order to gain the mark of distinction they must reach a higher standard in the subject as a whole, and must also reach a certain standard in (1) and in (2). For Spoken French see page 6.)

8. GERMAN:*

The paper will consist of (1) questions on grammar; (2) passages for translation into English; (3) two passages of English for translation into German: as an alternative to the harder passage, subjects will be given, on one of which they may write a short composition in German.

In order to pass candidates must reach a certain standard in the subject as a whole. They may be rejected for weakness in any one of the three parts of the paper. In order to gain the mark of distinction they must reach a higher standard in the subject as a whole, and must also reach a certain standarad in (2) and in (3).

For the Examination in Spoken German, see page 6.

9. SPANISH. 10. DUTCH:

The paper will include (1) questions on grammar, (2) passages for translation into English, (3) passages for translation into the language.

In order to pass in Spanish or Dutch, candidates must reach a certain standard in the subject as a whole. They may be rejected for weakness in any one of the three parts of the paper. In order to gain the mark of distinction they must reach a higher standard in the subject as a whole, and must also reach a certain standard in (2) and in (3).

GROUP III.

In order to pass in Group III., candidates must satisfy the Examiners either in one of the subjects 11 to 15, or in Arithmetic and in one of the subjects 16 to 20.

Except in Arithmetic and Geometry, candidates taking mathematical papers will be provided in the examination room with mathematical tables (see footnote † on page 3); they should bring graduated rulers and protractors for all papers in which they are likely to be required.

11. ARITHMETIC, GEOMETRY, AND ALGEBRA:

(*a*) ARITHMETIC (see the Junior Syllabus for Arithmetic on page 2).

(*b*) GEOMETRY (see page 7).

(*c*) ALGEBRA.—Questions will be set on the parts of the subject included in the syllabus for the Junior Examination (see page 3). For more advanced candidates, easy questions may be set on permutations and combinations and the use of the binomial, exponential, and logarithmic expansions. Candidates will be provided in the examination room with squared paper.

In order to pass in subject 11, candidates must satisfy the Examiners in all the three papers.

12. TRIGONOMETRY, together with *either* ANALYTICAL GEOMETRY *or* CALCULUS:

(*a*) PLANE TRIGONOMETRY up to the solution of triangles. Some of the questions will be on easy numerical Trigonometry. Graphs of trigonometrical functions; addition theorems; problems in two and three dimensions.

(*b*) ELEMENTS OF ANALYTICAL GEOMETRY.†—Easy questions on the straight line, the circle, and the conic sections referred to principal rectangular axes.

(*c*) ELEMENTS OF THE CALCULUS,† including the differentiation of simple functions, turning values, tangents, and normals; easy physical applications.

In order to pass in subject 12, candidates must satisfy the Examiners in (*a*), and in either (*b*) or (*c*). They may take all three.

* See note * on page 3.

† These will be included in the same paper, but candidates may take one of the subjects without also taking the other.

13. APPLIED MATHEMATICS, including the equilibrium of forces acting in one plane ; the properties of the centre of gravity ; friction ; the lever, the common balance, the inclined plane, and the block-and-tackle ; the composition and resolution of velocities and accelerations in one plane ; rectilinear motion with uniform acceleration ; mass, momentum, dynamical measure of force ; work, energy, power ; the time of flight, greatest height and horizontal range of a projectile. In some simple questions candidates may be required to use graphical methods.

14. CHEMISTRY (Theoretical and Practical) (see page 9).*

15. PHYSICS (Theoretical and Practical) (see page 10).*

16. BOTANY (see page 11).—The examination will include a practical test.

17. NATURAL HISTORY OF ANIMALS (see page 13).—The examination will include a practical test.

18. PHYSICAL GEOGRAPHY (see page 13).

19. AGRICULTURAL SCIENCE.—Two papers will be set. Students must satisfy the Examiners in both of them. The syllabus will be sent on application.

20. DOMESTIC SCIENCE (for girls only).—Candidates cannot enter for this subject unless they either have passed in Elementary Experimental Science in the Junior Examination, or evidence must be produced that they have taken a practical course in Elementary Physics and Chemistry.

GROUP IV.

21. LOGIC.—The Elements of Logic.

22. BOOKKEEPING.—Questions will be set on Bookkeeping by double entry. Ruled forms will be provided for the candidates. *Alternative papers will be set.*

23 MENSURATION AND SURVEYING.—Questions will be set on Mensuration and on the Elements of Land Surveying and Levelling. Candidates will be provided in the examination room with tables of logarithms (see footnote † on page 3). They should provide themselves with rulers, scales, &c.

24. SHORTHAND.—Students will be required to take down passages read aloud, and afterwards to transcribe them. Passages will be dictated at the rates of seventy words and ninety words per minute.

No student may take both subject 23 and subject 24.

25. DRAWING :

(*a*) FREEHAND DRAWING, from a photograph or print.—The examination will be designed to test the power of the candidates to draw accurately and intelligently. The drawings are to be executed in any medium.

(*b*) MODEL DRAWING.—The group will consist of common objects together with one or more of the following solids : the cube, square prism, cylinder, cone, triangular prism, square pyramid, equilateral triangular pyramid (regular tetrahedron), hexagonal prism, skeleton cube, and ring ; it is to be drawn and shaded with pencil, chalk, or wash of any one colour.

(*c*) PERSPECTIVE DRAWING.—Geometrical and common objects in parallel and angular perspective, above and below the horizon.

(*d*) DESIGN.—Candidates will be supplied with a photograph or print of some characteristic portion of a plant, and will be required to fill a given space with a design based thereon. They will be asked to state the purpose for which their designs are intended ; if the purpose stated precludes the use of colour, a design in black and white will be accepted ; otherwise the design must be coloured.

(*e*) MEMORY DRAWING.—Candidates will be required to draw from memory a group of simple objects, which may include figures or plants, the drawing to be executed in any medium. *Alternative papers will be set.*

(*f*) MECHANICAL DRAWING.—The syllabus is the same as for Juniors (page 4), with the addition of pulley wheels, eccentrics, cranks, pistons, cylinders, &c.

To pass in Drawing, candidates must satisfy the Examiners in two of the above, of which (*a*) or (*b*) must be one. They may not take more than two of the four papers (*c*), (*d*), (*e*), (*f*).

26. MUSIC.—Questions will be set on Notation ; Scales, Clefs, Keys, Intervals, Time ; the Marks and Terms generally employed in Music ; Cadences ; Triads and Chords of the Dominant Seventh and their Inversions ; Single Suspensions. On the above Chords exercises (in not more than four parts) will be set, in which the highest or the lowest part will be given, the latter being either figured or unfigured. Passing notes may be used. Questions will also be set on Parry's *Studies of the Great Composers* (Routledge), Chapters 7, 11, and 12.

27. NEEDLEWORK (see page 15).

EXAMINATION IN SPOKEN FRENCH AND GERMAN.

Candidates entering for the spoken examination in either language must also enter for the paper in the same language at the same examination,† and if they reach the required standard therein and also in the spoken examination, the fact of their having satisfied the Examiners in the spoken examination will be entered on their certificate.

The spoken examination will not be necessary for passing in the language (except for Seniors offering the French Syllabus B) or for the mark of distinction ; it will, however, be taken into account in determining the position of candidates in the general Class List, and it will be counted towards the mark of distinction in cases where the mark of distinction would not be obtained without it.

In the Junior and Senior Examinations candidates will be required (1) to read aloud a passage of French, or German ; (2) to write a passage of French, or German, from dictation ; (3) to hold a short conversation in French, or German, with the Examiner.

For the Junior and Senior Examinations candidates may, but are not obliged to, offer a portion of a French or German author, on which, if approved by the Syndicate, the conversation may be partly based. A book or a portion of a book containing less than 6,000 words will not be approved. A list of certain books already approved may be obtained from the General Secretary. Application for the approval of books outside this list must be received by the Director of Education not later than May 12, and must be accompanied by a copy of the book.

The oral examination can be held in Colombo only. The fee is Rs. 5 per candidate (the minimum payable by any school or by a private candidate being Rs. 15 for each language).

GEOGRAPHY SYLLABUS FOR JUNIORS.

(i.) *Outlines of Physical Geography.*‡—The size, shape, and movements of the earth. Latitude and longitude. The general distribution of land and water. The principal highland and lowland areas of the world. Winds. Rainfall. The distribution of temperature. Different types of climate. The broad distribution of natural forest land, grass land, and desert. The use and reading of maps, with special reference to the representation of relief.

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* To pass in any Science section, candidates must satisfy the Examiners in both the theoretical and practical parts of the subject. The Science subjects can be taken at those centres only at which a suitable laboratory and apparatus can be provided. A special local fee may be charged. Candidates will be provided with mathematical tables in all papers in Chemistry and Physics ; they may bring their slide rules in the practical examinations in both subjects.

† Senior candidates, however, who have already obtained a certificate and passed the written examination in either of the languages, may enter at a subsequent examination for the spoken examination in the same language, and, if successful, they will receive a supplementary certificate to that effect. The fee, as stated above, together with a share of the Examiner's expenses, must be paid by senior as well as other candidates entering in this manner.

‡ *The questions on part* (i.) *of the syllabus will form about a quarter of the paper.*

(ii.) *The British Isles* and (for 1918) *one* of the three following areas: *Europe, Asia, Australasia,* together with the surroundings seas. [Colonial candidates may omit the British Isles and take *two* of the three areas named above.]

In each area maps showing relief should be studied. Attention should be paid to the relation between the physical geography of the country and its political and commercial geography; the factors determining the position and importance of ports and towns; causes which affect the distribution of population; factors which facilitate or hinder the means of communication between different districts and their influence on the development of countries; the characteristics of natural areas; the influence of climate on the natural resources of countries and the occupations of the people; the development of industries and commerce; the political boundaries and their relation to physical features. An outline map will be given of some part of the areas studied, and candidates may be asked to make insertions with regard to physical features, rainfall, temperature, prevailing winds, natural vegetation, areas of special productions, important towns, density of population, and political divisions.

GEOGRAPHY SYLLABUS FOR SENIORS.

(i.) *Principles of Physical Geography.**—The size, shape, and movements of the earth. Latitude and longitude. The general distribution of land and water; the depth, currents, and tides of the seas. The continental shelf. The character and general mode of origin of deserts, plains, plateaux, highlands, river systems, lakes, coasts, &c. Distribution of temperature and atmospheric pressure; winds. Annual and seasonal distribution of rainfall and its causes. Determining factors which control climate. Different types of climate. The broad distribution of natural forest land, grass land, and desert. Use of maps and general principles of their construction.

(ii.) For 1918 *one* of the following three areas with the surrounding seas†: *Europe* (*including the British Isles*), *Asia, Australasia.*

In studying each area students should pay attention to—

The influence of geographical factors on the life, occupations, settlements, and movements of mankind.

Outline and relief. The character and origin of different types of coast; their influence on the sites of settlements and the economic development of countries. The positions of ports rather than of promontories. The influence of the currents and tides of the seas. The relief and physical features of the land and their relation to the general structure; the position and importance of deserts, plains, plateaux, highlands, river systems, lakes, coasts, &c. The relation between the physical features of a country and its political and commercial geography; for instance, in mountain ranges attention should be paid to the positions of the passes rather than of the peaks.

Climate. Winds, rainfall, and temperature, and their influence on natural products and human occupations.

River systems as one of the chief factors determining the positions of centres of population and lines of communication. Other factors which affect the positions of towns and have influenced their growth or decay.

Natural resources. Natural areas, their physical character, climate, vegetation, and products. Vegetation types, forests, grass lands, deserts, &c. The distribution of minerals. The development of industries and commerce.

Administrative divisions. The relation of political boundaries to physical features.

Candidates will be asked to draw sketch maps of some portion or portions of the area.

SYLLABUS IN GEOMETRY.

General Instructions applicable to the Junior and Senior Examinations.

The papers in Geometry will contain questions on Practical and on Theoretical Geometry. Every candidate will be expected to answer questions in both branches of the subject.

The questions on Practical Geometry will be set on the constructions contained in the annexed Schedule A, together with easy extensions of them. In cases where the validity of a construction is not obvious, the reasoning by which it is justified may be required. Every candidate must provide himself with a ruler graduated in inches and tenths of an inch, and in centimetres and millimetres, a set square, a protractor, compasses, and a fairly hard pencil. All figures must be drawn accurately and distinctly. Questions may be set in which the use of the set square or of the protractor is forbidden.

The questions on Theoretical Geometry will consist of theorems contained in the annexed Schedule B, together with questions upon these theorems, easy deductions from them, and arithmetical illustrations. Any proof of a proposition will be accepted which appears to the Examiners to form part of a systematic treatment of the subject; the order in which the theorems are stated in Schedule B is not imposed as a sequence of their treatment. In the proof of theorems and deductions from them, the use of hypothetical constructions will be permitted.

Junior Examination.

Attention is called to the General Instructions above.

The paper will consist of two parts, each containing questions on Practical and on Theoretical Geometry. Candidates can pass in Geometry by doing sufficiently well in Part I. The use of algebraical symbols is permitted.

Part I.—Questions will be set on Schedules A (i.), A (ii.), and B (i.), B (ii.).

Candidates will also be expected to be acquainted with the forms of the simpler solid bodies, namely, the cube, the rectangular block, the tetrahedron, the sphere, the cylinder, the wedge, the pyramid, and the cone.

Part II.—Questions will be set on Schedules A (iii.) and B (iii.).

Senior Examination.

Attention is called to the General Instructions above.

Questions will be set on Schedules A (i.), A (ii.), A (iii.), and B (i.), B (ii.), B (iii.). The use of algebraical symbols and (in the solution of riders) of trigonometrical ratios is permitted.

For more advanced candidates, questions will also be set relating to other properties of triangles and circles, and to the Elementary Geometry of the plane and the sphere.

SCHEDULES.

Schedule A. (Practical.)

A (i.).

Bisection of angles and of straight lines.
Construction of perpendiculars to straight lines.
Construction of an angle equal to a given angle.
Construction of parallels to a given straight line.
Simple cases of the construction from sufficient data of triangles and quadrilaterals.
Division of straight lines into a given number of equal parts or into parts in any given proportions.

* See note ‡ on page 6.

† In 1919 the areas will be: Europe (including the British Isles), Asia, America (south of the United States).

A (ii.).

Construction of a triangle equal in area to a given polygon.
Construction of tangents to a circle and of common tangents to two circles.
Construction of circumscribed, inscribed, and escribed circles of a triangle.

A (iii.).

Simple cases of the construction of circles from sufficient data.
Construction of a fourth proportional to three given straight lines and a mean proportional to two given straight lines.
Construction of regular figures of 3, 4, 6, or 8 sides in or about a given circle.
Construction of a square equal in area to a given polygon.

SCHEDULE B. (THEORETICAL.)

B (i.).

Angles at a Point.

*If a straight line stands on another straight line, the sum of the two angles so formed is equal to two right angles and *the converse.

*If two straight lines intersect, the vertically opposite angles are equal.

Parallel Straight Lines.

When a straight line cuts two other straight lines, if (i.) a pair of alternate angles are equal, or (ii.) a pair of corresponding angles are equal, or (iii.) a pair of interior angles on the same side of the cutting line are together equal to two right angles, then the two straight lines are parallel; and *the converse.

Straight lines which are parallel to the same straight line are parallel to one another.

Triangles and Rectilinear Figures.

The sum of the angles of a triangle is equal to two right angles.

If the sides of a convex polygon are produced in order, the sum of the angles so formed is equal to four right angles.

If two triangles have two sides of the one equal to two sides of the other, each to each, and also the angles contained by those sides equal, the triangles are congruent.

If two triangles have two angles of the one equal to two angles of the other, each to each, and also one side of the one equal to the corresponding side of the other, the triangles are congruent.

If two sides of a triangle are equal, the angles opposite to these sides are equal; and the converse.

If two triangles have the three sides of the one equal to the three sides of the other, each to each, the triangles are congruent.

If two right-angled triangles have their hypotenuses equal, and one side of the one equal to one side of the other, the triangles are congruent.

If two sides of a triangle are unequal, the greater side has the greater angle opposite to it; and the converse.

Of all the straight lines that can be drawn to a given straight line from a given point outside it, the perpendicular is the shortest.

The opposite sides and angles of a parallelogram are equal, each diagonal bisects the parallelogram, and the diagonals bisect one another.

If there are three or more parallel straight lines, and the intercepts made by them on any straight line that cuts them are equal, then the corresponding intercepts on any other straight line that cuts them are also equal.

Loci.

The locus of a point which is equidistant from two fixed points is the perpendicular bisector of the straight line joining the two fixed points.

The locus of a point which is equidistant from two intersecting straight lines consists of the pair of straight lines which bisect the angles between the two given lines.

B (ii.).

Areas.

Parallelograms on the same or equal bases and of the same altitude are equal in area.

Triangles on the same or equal bases and of the same altitude are equal in area.

Equal triangles on the same or equal bases are of the same altitude.

In a right-angled triangle, the square described on the hypotenuse is equal to the sum of the squares described on the sides containing the right angle; and the converse.

The Circle.

A straight line drawn from the centre of a circle to bisect a chord which is not a diameter, is at right angles to the chord; conversely, the perpendicular to a chord from the centre bisects the chord.

There is one circle, and one only, which passes through three given points not in a straight line.

Equal chords of a circle are equidistant from the centre; and the converse.

The tangent at any point of a circle and the radius through the point are perpendicular to one another.

If two circles touch, the point of contact lies on the straight line through the centres.

The angle which an arc of a circle subtends at the centre is double that which it subtends at any point on the remaining part of the circumference.

Angles in the same segment of a circle are equal; and, if the line joining two points subtends equal angles at two other points on the same side of it, the four points lie on a circle.

The angle in a semicircle is a right angle; the angle in a segment greater than a semicircle is less than a right angle; and the angle in a segment less than a semicircle is greater than a right angle.

The opposite angles of any quadrilateral inscribed in a circle are supplementary; and the converse.

B (iii.).

Areas.

Illustrations and explanations of the geometrical theorems corresponding to the following algebraical identities :—

$$k(a + b + c + \ldots) = ka + kb + kc + \ldots,$$
$$(a + b)^2 = a^2 + 2ab + b^2,$$
$$(a - b)^2 = a^2 - 2ab + b^2,$$
$$a^2 - b^2 = (a + b)(a - b).$$

* Proofs of these theorems will not be required.

The square on a side of a triangle is greater or less than the sum of the squares on the other two sides, according as the angle contained by those sides is obtuse or acute. The difference is twice the rectangle contained by one of the two sides and the projection on it of the other.

The Circle.

In equal circles (or, in the same circle) *(i.) if two arcs subtend equal angles at the centres, they are equal; *(ii.) conversely, if two arcs are equal, they subtend equal angles at the centre.

In equal circles (or, in the same circle) *(i.) if two chords are equal, they cut off equal arcs; *(ii.) conversely, if two arcs are equal, the chords of the arcs are equal.

If a straight line touch a circle, and from the point of contact a chord be drawn, the angles which this chord makes with the tangent are equal to the angles in the alternate segments.

If two chords of a circle intersect either inside or outside the circle, the rectangle contained by the parts of the one is equal to the rectangle contained by the parts of the other.

Proportion : Similar Triangles.

(Proofs which are only applicable to commensurable magnitudes will be accepted.)

If a straight line is drawn parallel to one side of a triangle, the other two sides are divided proportionally; and the converse.

If two triangles are equiangular, their corresponding sides are proportional; and the converse.

If two triangles have one angle of the one equal to one angle of the other and the sides about these equal angles proportional, the triangles are similar.

The internal bisector of an angle of a triangle divides the opposite side internally in the ratio of the sides containing the angle, and likewise the external bisector externally.

The ratio of the areas of similar triangles is equal to the ratio of the squares on corresponding sides.

ELEMENTARY EXPERIMENTAL SCIENCE SYLLABUS FOR JUNIORS.

Part I.

The general properties of matter. Cohesion. States of matter—solid, liquid, and gaseous.

The distinctive properties of solids, including simple experiments on elasticity.

The distinctive properties of liquids. The water level. The characteristic properties of a gas.

The methods of measuring length, area, volume, and time. Experiments with the simple pendulum.

The principle of the lever and of the balance.

Determination of densities and specific gravities.

Experiments on flotation. Hydrometers.

The pressure of the atmosphere. The mercury barometer. The aneroid barometer. The action of a pump. The siphon.

The effects of heat on matter. Expansion. Temperature and its measurement. The use of various kinds of thermometers. Change of state. Fusion. Evaporation and boiling. Conduction of heat. Experiments on good and bad conductors. Heating by convection and radiation.

The simple laws of light. The formation of shadows. Reflexion of light. The properties of plane mirrors.

Refraction through a glass plate and through water. The bending of light through a prism. The properties of a convex lens. The dispersion and recomposition of white light. Colour.

Electrification by friction. The properties of magnets and of the electric current.

Part II.

Common laboratory operations, such as evaporation, crystallization, filtration, and distillation.

The changes that occur when substances are heated. The chemistry of air. Oxygen and nitrogen. Rusting and burning.

Qualitative examination of simple chemical changes.

The physical and chemical properties of water. Properties of hydrogen.

Properties of acids and alkalis. Neutralization, common salt, and saltpetre.

Carbon. Carbon dioxide, chalk, and lime.

At the practical part of the examination candidates will be asked to perform easy experiments on the above subjects.

CHEMISTRY SYLLABUS FOR JUNIORS.

The subject-matter of Experimental Science (Part II.), together with the following:—

Chemical and physical changes, elements, compounds, and mixtures. Laws of chemical combination. Equivalent weights. Meaning and use of symbols, formulæ, and equations.

Oxygen and hydrogen. Oxides, acids, bases, and salts.

The chemistry of nitrogen, ammonia, nitrous and nitric oxides, nitric acid, and nitrates; chlorine, hydrochloric acid, and chlorides; carbon, oxides of carbon, carbonates (especially those of calcium and sodium); sulphur, hydrogen sulphide, oxides of sulphur, sulphuric acid, and sulphates.

Iron and lead, their oxides and common salts.

At the practical part of the examination candidates will be asked to perform easy qualitative and quantitative experiments on the above subjects. No knowledge of systematic analysis will be expected.

CHEMISTRY SYLLABUS FOR SENIORS.

In addition to the subject-matter of the Junior Syllabus, candidates will be expected to be more fully acquainted with the atomic and molecular theories, and to work numerical exercises dealing with chemical reactions.

Properties of metallic and non-metallic elements. Classification of the elements. Allotropy. Properties of solutions. The chemistry of oxygen, hydrogen, nitrogen, carbon, sulphur, the halogens, and phosphorus. Boric acid and borax. Silica and sodium silicate.

The chemistry of the following metals and their compounds, in addition to those that are dealt with in connection with foregoing:—Silver, arsenic, mercury, copper, lead, aluminium, iron.

At the practical part of the examination candidates will be asked to perform qualitative and quantitative exercises on the above subjects, which may include the identification of the elements and compounds included in the foregoing list, and the use of standard solutions of acids, alkalis, and potassium permanganate.

* Proof of these theorems will not be required.

PHYSICS SYLLABUS FOR JUNIORS.

The subject-matter of Experimental Science (Part I.), together with the following :—

The measurement of momentum and force. Resolution and composition of forces. Centre of gravity. Work and energy. Levers and pulleys.

The measurement of quantities of heat. Specific heat of solids and liquids. Latent heat. Expansion of solids and liquids.

Evaporation, vapour pressure, and boiling. Transformation of work into heat.

Simple properties of mirrors and lenses. Combination of lenses to form a telescope and a microscope. Principle of the spectroscope.

Comparison of the moments of magnets. Comparison of the strengths of magnetic fields. The earth as a magnet.

The practical units of current, electromotive force, resistance. Ohm's Law.

The construction and use of common electrical instruments, such as the galvanometer, voltmeter, and ammeter. The voltameter.

Experiments illustrating electro-magnetic induction.

At the practical part of the examination candidates will be asked to perform easy experiments on the above subjects

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PHYSICS SYLLABUS FOR SENIORS.

The subject-matter of the Junior Physics, together with the following :—

Sound.—The characteristics of sound waves. The reflection of sound. The experimental determination of the velocity of sound in air. The effect of change of atmospheric conditions on the velocity of sound in air. The relation between pitch and frequency, loudness and amplitude, quality and wave form. Experimental determination of pitch. Simple experiments on interference of sound waves.

Experiments of the vibration of strings and columns of air.

Resonance. Velocity of sound in gases.

Heat.—Methods of measuring temperature. Corrections for mercury thermometers. Determination of the coefficients of expansion of solids and liquids. Relations between the volume, temperature, and pressure of a gas. Calorimetry. Specific heat of solids and liquids. Fusion.

Determination of melting-points.

Latent heat of fusion.

Evaporation, vapour pressure, and boiling.

Determination of boiling-points. The relation of boiling to pressure.

Latent heat of vaporization.

The dew-point. Hygrometers.

Conduction and convection. Radiant energy and its mode of propagation : its relation to light.

The relation of heat to energy. The determination of the mechanical equivalent of heat.

Light.—The laws of reflection and refraction of light. Measurement of the refractive index of solids and liquids. Total reflection.

The properties of mirrors and lenses.

Deviation and dispersion produced by a prism.

Different types of spectra. Principle of the telescope and microscope.

Magnetism and Electricity.—Induced magnetization. Experimental verification of the laws of magnetic force.

The magnetic properties of iron and steel. Magnetic fields.

Moment of a magnet. The earth as a magnet.

The simple phenomena of electrostatics. Electrostatic induction. Electrostatic potential, distribution of charge, capacity.

Condensers.

Methods of producing electric currents, primary cells.

Magnetic effects of a current, galvanometers.

Chemical effects of a current, electrolysis, secondary cells.

Ohm's Law, its experimental verification.

Methods of comparing current strength, electromotive force, resistance.

Practical units of current, electromotive force, and resistance.

Specific resistance and conductivity.

Heating effect of a current. Joule's Law.

Experiments to illustrate electro-magnetic induction.

At the practical part of the examination candidates will be asked to perform experiments on the above subjects.

BOTANY SYLLABUS.

Introductory Observations.

The following biological principles which underlie the accompanying schedules may prove useful to teachers in their presentation of the subject to students :—

(i.) Any single plant growing in its natural habitat may be regarded as an efficient machine. It is made up of different parts performing different functions, thus exhibiting division of physiological labour.

(ii.) There may be many efficient types of plants growing in the same habitat. These may differ strikingly from one another in regard to single biological advantages, and yet be equally successful in regard to the sum total of their equipment for the struggle for existence.*

(iii.) Plants are efficient for life in very various habitats, and survive through wide ranges of seasonal change. In accomplishing this plants exhibit more or less striking adaptations to the external conditions in which they exist.

It is essential that the teacher should constantly keep in mind the importance of naked-eye work and of experiments performed by the students themselves on living plants. A simple lens and dissecting instruments will be found sufficient to enable the student to recognize such anatomical features as are essential for the appreciation of physiological processes.

* It is a matter of common experience that a student finds it difficult to realize, on being taught that a plant has certain advantages—say, in possessing winged fruits—why other plants are not provided with the same efficient mechanism. This and similar difficulties may be met by an application of the ideas expressed in the principle stated above.

The schedule prescribes the use of the microscope for Senior students, but it is not intended to discourage the use of the microscope for *demonstration* purposes in the case of Junior students when it is difficult for them to form a conception of structural features (*e.g.*, stomata, chlorophyll-corpuscles, &c.) which are too small to be seen satisfactorily under a simple lens.

It is very important that students should be taught to make, from specimens, drawings much larger in scale than the actual objects, and diagrammatic in treatment.

With a view to avoiding the danger, consequent on limitation of time, of attempting to hurry students through the longer courses of instruction, a choice of questions will be allowed in the Junior and Senior examinations.

In the examinations on the Junior and Senior schedules specimens (not necessarily confined to the families mentioned in the schedules) will be provided for description, and special weight will be given to this part of the examination. Students should bring a pocket lens and a dissecting instrument.

JUNIOR.

I.—The Morphology and Functions of Herbaceous Plants.

The examination of a common herbaceous Dicotyledon to illustrate the structure and functions of the root and shoot systems; the distribution of vascular and mechanical tissues; the origin and position of new members on roots and shoots; and a comparison of the growing points of stems and roots. The root and shoot systems should be treated also from a biological point of view, showing how each is adapted in its mode of growth and arrangement of parts to carry out its physiological functions in the medium in which it lives.

Students should take part in the performance of simple experiments illustrating the more important physiological functions of plants; respiration; transpiration; absorption; nutrition; etiolation, heliotropism, and geotropism, their biological importance.

Students should have an *elementary* knowledge of the chemical and physical properties of the atmosphere and of water.

II.—Arborescent Plants.

Comparison of the mode of growth, habit, and bark-characters of a few common trees: the examination of twigs of mango, cotton tree, and jak, or other common trees, including (for deciduous trees) comparison of their leafy and leafless stages and relation of latter to dry season. Knowledge of annual history of common trees, including time of producing young foliage, colour and habit of young foliage, time of flowering, and of ripening fruit. Observation of cauliflory of hanging roots (banyan tree), stilt roots, buttress roots, of the production of latex and useful fibre.

General characteristics of palms and bamboos contrasted with dicotyledonous trees.

III.—Comparative Morphology and Biology.

A comparison of a few selected plants to illustrate the principal forms of leaves and stems.

Examination of the distinctive characters and of the adaptations to different modes of life of the following series of biological types: grass, dicotyledonous herb, tree.

Adaptation to special habitats as illustrated by water plants and climbing plants.

Comparison of the different parts of plants in which food reserves are stored.

IV.—Flowers and Reproductions.

The student should not begin the study of flowers by learning the characteristics of various families. Flowers should, in the first place, be considered, like vegetative organs, from a biological point of view. Attention should be paid to features of biological interest in some common types of inflorescences, as well as to the functions and special morphology of the parts of the flower in relation to pollination and seed production. Attention should be paid to the importance of dichogany and other methods of insuring cross-pollination. Flowers of the following famllies* should be examined: Dilleniaceæ, Malvaceæ, Leguminosæ including Mimoseæ and Cæsalpineæ, Myrtaceæ, Rubiaceæ, Compositæ, Convolvulaceæ, Scrophulariaceæ, Amaryllidaceæ, Commelinaceæ.

Different types of seeds and fruits should be examined with special reference to seed dispersal.

V.—Biological Types and Life Histories.

Knowledge of characteristics of the following biological types:—

Epiphytes.—Including Orchids, Ferns, Araceæ, Ficus, Clusia, their various adaptations for their habitat.

Parasites and Semi-parasites, e.g., Cuscuta, Cassytha, Loranthaceæ, Rhipsalis.

Xerophytes, e.g., Euphorbia, Sansevieria, Casuarina, Prosopis, Cactaceæ.

Insectivorous plants, e.g., Nepenthes, Drosera, Utricularis.

Hydrophyles, e.g., Nymphæa, Eichhornia, Heteranthera, Trapa, Sagittaria, Pistia, Hydrilla.

The part played in the life of the plant by seeds, bulbs, tubers, and other structures adapted for food storage and for vegetative reproduction.

Students should themselves grow suitable seeds in order to study the germination of different types of seedlings.

It is desirable, when circumstances permit, that excursions into the country should be arranged to enable students to observe the plants of different classes of habitats.

SENIOR.

I.—The Morphology and Functions of Herbaceous Flowering Plants.

The microscope should be used, at the discretion of the teacher, for the examination of organs the function of which it is difficult to understand without some knowledge of their microscopic structure.

An examination of a Dicotyledon and Monocotyledon to illustrate the structure and functions of the root and shoot systems; the distribution of vascular and mechanical tissues; the origin and position of new members on roots and shoots; and a comparison of the growing points of stem and root. The root and shoot system should be treated also from a biological point of view, showing how each is adapted in its mode of growth and arrangement of parts to carry out its physiological functions in the medium in which it lives.

Students should themselves perform simple experiments illustrating the more important physiological functions of the plant, including the simpler manifestations of irritability as exhibited by the movements of leaves, stems, and roots. Special prominence should be given to this experimental work.

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* The above list is intended to suggest suitable material for use in the study of the morphology of the flower; candidates are not expected to learn the characters of the families. If any of the orders named above cannot be obtained, teachers should use their discretion in substituting other orders, which should resemble as nearly as possible the orders for which they are substituted as regards the principal points which they illustrate.

II.—Arborescent Plants.

A comparative study of common trees (dicotyledons and monocotyledons, including palms, pandanus, bamboos, dracæna) as regards habit, external morphology, forms of leaves, &c.

Secondary thickening; its significance in relation to the increase in leaf-area and root development; rings in wood, whether dependent on season or not, in what trees present and in what absent, what changes in nature of wood produce them; heartwood and sapwood.

III.—Comparative Morphology and Biology.

Simple comparative morphology of leaf and stem.

Examination of the distinctive characters and of the adaptations to different modes of life of the following series of biological types: grass, dicotyledonous herb, tree.

Adaptation to special habitats as illustrated by water plants and climbing plants.

Comparison of the different parts of plants in which food reserves are stored.

IV.—Flowers and Reproduction.

The morphology and natural history of the flowers of the following families: Dilleniaceæ, Malvaceæ, Aurantiaceæ, Leguminosæ including Mimoseæ and Cæsalpineæ, Myrtaceæ, Cucurbitaceæ, Rubiaceæ, Compositæ, Convolvulaceæ, Acanthaceæ, Scrophulariaceæ, Amaryllidaceæ, Palmæ, Gramineæ.

The attention of the student should be drawn to the general uniformity of plan that prevails among flowers, and to the variations in the relations of parts characteristic of different families.

Students should be taught to construct floral diagrams, and to make drawings of longitudinal sections of flowers.

Cross-pollination, self-pollination, and their mechanisms.

The general morphology of fruits and seeds and the methods of dispersal.

V.—Biological Types and Life Histories.

More extended study of the characteristics of the biological types in the Junior Syllabus, with the addition of mangroves, sensitive plants, *e.g.*, mimosa, &c.

The part played in the life of a plant by seeds, bulbs, tubers, and other structures adapted for food storage and for vegetative reproduction.

Students should themselves grow suitable seeds in order to study the germination of different types of seedlings.

The seedlings studied should always include cocos or some other common palm.

NATURAL HISTORY OF ANIMALS.

Introductory Observations.

The formative value of Natural History lies (1) in encouraging a habit of observation, (2) in developing the power of comparison and the habit of looking for reasons for the differences between things. The teacher should therefore take care (1) that the animals, so far as possible, be seen, handled, and watched alive by his pupils, who should especially be warned that imagination is no substitute for observation in regard to the habits of the creatures; (2) that the connection between the bodily structure of each animal and its mode of life be pointed out. It is well to bear in mind also that things shown are more easily understood and make a more permanent impression on the mind than things merely told.

So far as possible simple English names for the objects of instruction should be used, both because they are more easily understood and remembered, and because the use of unfamiliar names, which must be committed to memory by an effort, is apt to give a distaste for the subject. Marks are often lost by misuse of the Latin names of things which have a well-known English name, as, for instance, the word *sternum*, which is sometimes misapplied, whereas "breastbone" cannot be.

(This should not preclude the learning of the Latin as well as the English names of animals, such as butterflies and birds, of which a collection is made and classified.)

It is not expected that students will cover the whole schedule. In section 1 it will be well to begin with the human skeleton and its relation to the external form of the body; instruction on the teeth should be given, but details of the skull, the wrist, and the ankle may be omitted. With the aid of pictures or diagrams an *outline* of the internal anatomy and physiology can then be given. In teaching the several mammals named in the schedule, it will be well to compare the general shape of the body, the teeth, and the bones of the hands and feet with those of Man—in many ways, physically, a primitive and generalized type. Books can be used for the foreign species, and visits to a zoological garden will be useful. British mammals should be studied alive if possible.

In section 2 the skeleton of a fowl or pigeon should be studied, but both here and in section 6 formal lessons should not be given on those parts of the subject which students will learn better by personal observation and collecting or photographing. Lectures on such subjects as warning and protective colouration will be of value. Many of the aquatic forms can be well observed in an aquarium. Insects should be reared when this is possible, and in the case of all the animals every opportunity should be taken of observation in the field.

The Syndicate are prepared to recommend text books to teachers. Application may be made to the General Secretary.

NATURAL HISTORY OF ANIMALS SYLLABUS FOR JUNIORS.

1. The general structure of a mammal and an elementary knowledge of the functions of its chief organs.

The more important characteristics, as regards form and habits, of the following mammals:—Monkeys, Bats, Moles, Hedgehogs, Carnivores, Ungulates, Whales, Rodents, Marsupials.

2. The external features of a Bird, and such details of anatomical structure as are connected with the power of flight.

The principal diversities in external form and habits characteristic of the main groups of Birds.

The eggs, nesting and singing habits, and migration of common British species.

3. The external features, life history, and habits of a Frog.

4. The external features and mode of life of a Fish.

5. The external features and mode of life of a Snail, a Cockroach, and an Earthworm.

6. The life history of a Moth or Butterfly.

The distribution and habits of the better known British species of Moths and Butterflies.

Elementary questions may also be asked with regard to very common insects of other orders.

Students will not be expected to cover the whole schedule, and the paper will contain more questions than the candidates are allowed to answer. Importance will be attached to evidence of personal observation on the part of the candidates.

NATURAL HISTORY OF ANIMALS SYLLABUS FOR SENIORS.

Questions of a more advanced nature on the subjects of the Junior Schedule, and in addition on the following subjects:—

7. The external form, habits, and life history of the common Indian species of Insects, Fishes, Amphibians, Reptiles, and Mammals.
8. The external form and habits of the Jellyfish *Aurelia*, a Sea Anemone, a Mussel, a Crab, a Starfish.
9. The external form and habits of *Hydra*, the Horse-leech, the Pond-mussel, the Crayfish, a Spider.

Students will not be expected to cover the whole schedule, and the paper will contain more questions than the candidates are allowed to answer. Importance will be attached to evidence of personal observation on the part of the candidates.

PHYSICAL GEOGRAPHY SYLLABUS FOR JUNIORS.

The object of the examination will be to ascertain, as far as possible, to what extent the candidates' powers of observation and of reasoning have been cultivated.

The subjects of examination will be—

I. *The Earth.*—The form and movements of the earth. Meaning of the principal terms used in defining geographical position.

II. *The Surface-features of the Earth.*—The general distribution of land and water. Land-masses, their outlines and surface. Islands; mountains, valleys, and plains; watersheds; springs, rivers, and lakes; glaciers and icebergs. Volcanoes. Methods employed for representing the relief of the land; contour lines. Denudation; subaerial and marine.

III. *The Atmosphere.*—Composition and extent. The barometer. The thermometer. Methods of representing, by means of maps and diagrams, variations in pressure and temperature; isobars; isotherms. Movements of air. Fog and mist. Clouds and their varieties; rainfall; snow. Cold, temperate, and hot climates.

IV. *The Sea.*—Composition and extent. The distribution of oceans and seas. Temperature of the sea. Movements of the sea; waves, currents, and tides. The ocean-floor; its general contour and the deposits upon it. Methods employed for representing the relief of the ocean floor.

Candidates will be expected to illustrate their answers by maps and diagrams. The questions will be of an elementary character, but *special credit will be given for answers affording evidence that the candidates have received practical instruction. A schedule of the practical work recommended is given below.*

PHYSICAL GEOGRAPHY SYLLABUS FOR SENIORS.

Candidates will be expected to have studied the subjects mentioned in the schedule for Juniors, and to be prepared to answer questions of a less elementary character, implying more thorough study of the phenomena dealt with and of their causes.

Senior candidates will also be expected to have received a more extended course of practical instruction than Junior candidates, and to show a fuller knowledge of the construction and use of maps.

Questions will also be set on—

Methods of determining the position of any point on the earth's surface. Methods of map projection. Motion of the moon; eclipses. The causes of the tides. Terrestrial magnetism. The phenomena of earthquakes. Slow movements of land; evidences of elevation and depression. The aqueous vapour present in the atmosphere; evaporation; modes of condensation. Dew and its formation; dew-point. Construction of weather charts; barometric gradients; methods of forecasting the weather. Isothermal charts of the world. Conditions determining climate in different regions of the globe. Underground water. Study of land-forms; their origin and development. Drainage areas of continents. Internal drainage areas; deserts and salt lakes. Deposits, æolian, glacial, alluvial, lacustrine, and marine. Influence of climate and soil on the distribution of animal and vegetable life. A schedule of practical work is given below.

SCHEDULE OF PRACTICAL WORK RECOMMENDED IN PHYSICAL GEOGRAPHY (JUNIOR AND SENIOR).

[*This Schedule is the same as that in force for the year 1917.*]

The following outline of a course of practical instruction is suggested as tending (1) to develop the power and habit of observation, (2) to give the pupils clear and accurate conceptions of natural phenomena and their relations, and (3) to enable them to seek for the causes and rational explanations of the phenomena which they observe:—

I. *The Surface-features of the Earth.*—(1) Construction of plan of room or field. (2) Drawing cross sections from contour maps. (3) Study of map of the world showing heights of land. *(4) Making map of small area in neighbourhood.

II. *Land-forms.*—(1) Study of the natural features of the country in the immediate neighbourhood of the pupils, *e.g.*, neighbouring hills, valleys, streams, lakes, &c. (2) Observation of miniature forms of like nature, such as may be found in gutters, gullies, ponds, &c. (3) Occasional excursions for geographical study. *(4) Observations of the flow of a stream and of the amount of matter carried in suspension and in solution.

III. *The Atmosphere.*—(1) Use of the thermometer. *(2) Observations of temperature and the conditions affecting variations of temperature. *(3) Making isotherm maps from furnished data. *(4) Determination of dew-point. (5) Use of the barometer. *(6) Finding heights by means of the barometer. *(7) Making isobar maps from furnished data, and prediction of weather from weather maps. (8) Observations of direction and strength of winds. (9) Observations of rainfall by means of the rain-gauge. *(10) Determination of the amount of snowfall, and the amount of water produced by melting a given amount of snow. *(11) Observations of ground temperatures. (12) Observations of clouds and their different forms. *(13) Observations of rainbows.

IV. *The Sea.*—(1) Study of map of the world showing depth of sea. (2) Study of ocean-current maps. *(3) Study of tide-charts.

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* For Seniors only.

V. *The Earth.*—(1) Observations of the apparent motions of the heavenly bodies: the rising and setting of certain stars; determination of the cardinal points by observations on the sun or stars; the variation of the altitude of the noonday sun during the year; the measurement of this variation by means of the length of shadows at noon in the different months of the year. *(2) Observations on the moon; its waxing and waning; its movements with reference to the fixed stars from night to night. *(3) Determination of latitude by observation of the sun or of the pole-star. *(4) Finding difference between local and standard time; use of the sundial. *(5) Making maps on different projections. (6) Variation in the distance of the horizon with the altitude of the observer.

VI. *The Terrestrial Globe.*—(1) Estimation of distances between points on the earth's surface. (2) Determination of antipodal points. (3) Calculation of time at different places. *(4) Estimation of length of day at different latitude and seasons. *(5) Transferring to maps routes traced on the globe.

DOMESTIC SCIENCE SYLLABUS FOR SENIORS.

Questions will be set on the following schedule, and will involve a knowledge of Elementary Physics and Chemistry:—

A.

Outline of the structure of the Human Body.
Nature of protoplasm and protein.
Physiology of the Human Body.

(1) The digestive system.
Digestion and absorption, the structure and the care of the teeth.
(2) Excretion.
The kidneys, the structure of the skin.
(3) The respiratory system.
(4) The vascular system and the heart.
Healthy and unhealthy conditions of the blood.
(5) The outlines of the muscular and nervous systems.

B.

(1) Choice of site and aspect of houses.

(2) The theory of ventilation; systems of ventilation (outlets for air in roofs, clearance of jungle, &c.); cooling and lighting of rooms and buildings; drainage (surface and underground); conservancy (water carriage, dry-earth system, cesspits).

(3) Domestic water supply; hard and soft water; the pollution and purification of water.

(4) Foods and beverages; their classification; the nature and importance of the chief constituents; the changes effected by the cooking of foods; adulteration of foods; the action on foods of moulds and ferments.

(5) Personal hygiene; rest and exercise; washing and bathing; clothing.

(6) Infection, disinfection; simple facts concerning infective diseases common in the tropics, with special attention to such disease carriers and parasites as mosquitoes, flies, fleas, and worms.

(7) The influence of climate and weather on health.

The questions will be set in such a form as to test whether the candidates have studied the subject experimentally. The answers of candidates must show knowledge of local conditions.

NEEDLEWORK.

Note.—Principals of girls' schools who propose to enter pupils for examination in sewing at the Junior or Senior School Certificate Examination in December are required to send in to this office in January of the preceding year (*i.e.*, two years beforehand) a list of the names of such pupils.

The Inspectress of Needlework will pay visits (without notice) periodically for the purpose of reporting on the progress of these pupils, and the teacher's record must be ready for inspection along with the work of each pupil. On November 30 all the finished garments must be in the hands of the Inspectress of Needlework.

NEEDLEWORK SYLLABUS FOR JUNIORS.

Practical Examination.

(1) *Dealing with raw edges* of calico and flannel: hemming; herring-boning; binding; applying false hems.

(2) *Joining materials:* top-sewing and felling (pillowcases and longcloth under-garments); running and felling (fine under-clothing); running and herring-boning (flannel shirts); running and binding (flannel outer garments); "French" seams (cotton outer garments).

(3) Tucking; gathering; buttonhole making; darning holes and thin places in stockings; patching holes in calico, print, and flannel garments (no seams to be involved, the work to be limited to the mending of holes in places where unpicking of the garments is not necessary).

(4) To make a chemise (showing gathers), a child's sleeping suit, and a child's frock (showing tucks). No candidate will be allowed to take the examination who has not completed these garments.

To know how to place the different parts of a pattern in the proper positions on the material; and to plan with a view to economy in cutting out.

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* For Seniors only.

NEEDLEWORK SYLLABUS FOR SENIORS.

Practical Examination.

I. *Hand Sewing.*—As for Juniors (1), (2), and (3), also—

(4) Strengthening the ends of seams with gussets and tapes; patching holes under the arms in garments, and replacing torn corners of towels; darning rents in coats or woollen dresses, thin places and diagonal cuts in table linen; making whipped frills.

(5) Cutting out exercises: a chemise; a combination garment; yokes; sleeves; cuffs and collars for shirts; yokes and sleeves for nightgowns and frocks.

II. *Machine Work.*—(*a*) To use and keep in order a sewing machine.

(*b*) To cut from given patterns and put together a girl's frock, a boy's tunic suit, a woman's blouse and skirt.

Written Examination.

A knowledge of the comparative values of cotton, linen, and wool, as materials for clothing; the uses to which each is put; prices; approximate quantities required for common articles of dress or household linen.

SPECIAL CERTIFICATE FOR CEYLON.

A special certificate will be awarded by the Cambridge Syndicate under conditions specially approved for Ceylon, open to those Senior students not offering one of the sections 5 to 10 (languages) in the foregoing syllabus.

The examination in each subject will be identical with that for the Cambridge Senior School Certificate, but the subjects will be arranged in the following groups (I. to IV.), and to obtain the certificate a candidate must pass in two of the three subjects in Group I., in the whole of Group II., and in two subjects in Group III. If a candidate does not satisfy the Examiners in one of the sections 11 to 15 in Group III., he must pass in Arithmetic.

For girls, the requirements in Group I. and Group II. are the same as for boys. They should also pass in one subject in Group III., and in one of the three subjects—Drawing, Needlework, and Music—in Group IV., provided that every candidate passes in Arithmetic.

Group I.

1. Religious Knowledge (Section 1).
2. History (Section 3).
3. Geography (Section 4).

Group II

4. English, viz.:—(*a*) Essay.
   (*b*) Language.
   (*c*) Literature (three prescribed books).

Group III.

5. Elementary Mathematics, viz.:—(*a*) Arithmetic.
   (*b*) Geometry.
   (*c*) Algebra.
6. Trigonometry, together with either Analytical Geometry or Calculus (Section 12
7. Applied Mathematics (Section 13).
8. Chemistry (Section 14).
9. Physics (Section 15).
10. Botany (Section 16).
11. Natural History of Animals (Section 17).
12. Physical Geography (Section 18).
13. Agricultural Science (Section 19).
14. Domestic Science (Section 20).

Group IV.

15. Logic (Section 21).
16. Bookkeeping (Section 22).
17. Shorthand (Section 24).
18. Drawing (Section 25).
19. Music (Section 26).
20. Needlework (Section 27).

Note.—It will be seen that the examination for this special certificate is only intended for candidates who do not wish to take any other language besides English. It should be further noted that this special certificate may not at present entitle the holder to any special exemptions, which will be a matter for subsequent decision by the bodies granting such exemptions.

SPECIAL CONDITIONS FOR ADULT PRIVATE STUDENTS.

Applications from adult private students for permission to take up the examination prescribed by the Syndicate must be received by the Director of Education not later than May 1, 1918.

Applications for entry forms from adult candidates who are allowed to take the examination as private students should be made during the first week in June, and these entry forms must be forwarded to the Director of Education so as to reach him not later than July 1, 1918. Each entry form must be accompanied by—

(1) Bank receipt for Rs. 30 credited to the account of the Director of Education in the Mercantile Bank of India, Ltd., Colombo.

(2) The letter granting permission to take the examination.

CEYLON CENTRES.—CAMBRIDGE SCHOOL CERTIFICATE EXAMINATIONS, 1918.—TIME TABLE.

No Student can take two Papers set at the same time in the Time Table.

N.B.—Students will not be allowed to bring any books, maps, manuscripts, &c., *within the precincts of any building* in use for these examinations. *This rule will be rigidly insisted on.*

Special attention is called to the following rule as to Drawing:—*In Freehand and Model Drawing no measuring is allowed, nor may Students rule any of the lines. This does not preclude holding a pencil between the eye and the model to ascertain proportions.*

Breach of either of these rules will involve immediate expulsion.

Monday, December 9.	*Tuesday, December 10.*	*Wednesday, December 11.*	*Thursday, December 12.*	*Friday, December 13.*	*Saturday, December 14.*
8—9 Geom. Drawing J*		8—10 Arithmetic J Arithmetic S	8—10 Geometry J Geometry S		8—9 Geometrical Drawing J*
8—9½ Trigonometry J Trigonometry S Memory Drawing S*	8—10 English Authors J English Authors S			8—10½ Algebra J Algebra S	8—10 Physics III. (Prac.) J German J Spanish J Dutch J Physics II. S German S Spanish S Dutch S
9½—10¾ English Essay J		10—11½ I Samuel J Old Testament History J Acts J Catechism, &c. J	10—11½ English History J British Empire J Roman History J	10½—11½ Model Drawing J†	
9½—11 English Essay S	10—12 French J French S	10—11½ Old Testament History S Acts S I Samuel S	10—11¾ English History S British Empire S European History S Roman History S	10½—11¾ Model Drawing S	10½—12½ Physics I. J Botany J Bookkeeping J* Analytical Geometry and Calculus S Botany S Bookkeeping S*
11—11½ Dictation J‡					
12½—2 Gospel J Gospel S	1—3 Exp. Science I. J Theoretical Chemistry J Latin I. S Perspective Drawing S Needlework (Prac.) S	12½—2 Geography J Geography S	12½—1½ Memory Drawing J*	12½—2 Epistles S* Catechism, &c. S Litany, &c. S	2—3 Memory Drawing J*
			12½—1¾ Shorthand S		
			12½—2 Needlework II. S		
2—4 Latin I. J Needlework (Prac.) J		2—3½ English Language J Freehand Drawing S	12½—2½ Mechanical Drawing J Latin II. J Latin II. S Mensuration and Surveying S	12½—2½ Mechanics J Physical Geography J Physics I. S Physical Geography S	2—3½ Memory Drawing S*
		3¼—4¼ Freehand Drawing J			
		3¼—4¾ Epistles S*	2¾—4¾ App. Mathematics S Natural History S Agricultural Sc. I. S Design S	3¼—5¼ Greek I. J Bookkeeping J* Design J Music J* Greek I. S Practical Chemistry S Bookkeeping S* Music S	2—4 Greek II. J Exp. Science III. (Prac.) J Physics II. J Music J* Greek II. S Domestic Science S Mechanical Drawing S
2½—4½ Physics III. (Prac.) S	3—5 English Language S	3¼—5¼ Logic S Theoretical Chemistry S Agricultural Sc. II. S	3¼—5¼ Exp. Science II. J Practical Chemistry J Natural History J		

* Alternative Paper. Candidates entering for these subjects on one day cannot be allowed to take them on any other day.

† If at any Centre the number of Junior candidates entered for Model Drawing is larger than can be conveniently accommodated at one and the same time, the Presiding Examiner will be at liberty to fix some other time for certain of the candidates. Of this due notice will be given by the Presiding Examiner to the candidates concerned.

‡ Students will not be allowed to make a fair copy of their Dictation paper; they must give to the Examiner the paper which they write from his dictation.

H. C. COTTLE, GOVERNMENT PRINTER, COLOMBO, CEYLON.