SECONDARY EDUCATION (SCOTLAND).

## I.-CIRCULARS.

## II.-PAPERS

SET AT THE

## EXAMINATION FOR LEAVING CERTIFICATES, 1892,

HELD BY THE

## SCOTCH EDUCATION DEPARTMENT.

## III.--RESULTS OF THIS EXAMINATION.



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### INSPECTION OF HIGHER CLASS SCHOOLS, 1892 .--LEAVING CERTIFICATE.

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## CIRCULARS TO CORRESPONDENTS OF SCHOOLS.

# Circular 134.

## Scotch Education Department, Dover House, Whitehall, London, S.W., 7th January 1892. I AM directed to inform you that my Lords propose that the

SIR, next examination for leaving certificates shall begin on Monday, the 13th of June.

They have only to call your attention to the accompanying notes issued last ycar in connexion with the examination in mathematics, Latin and Greck, and modern languages. The principles therein laid down will continue to regulate their practice.

With regard to English, my Lords think that, in view of the large choice of questions in geography and history, the candidates may fairly be expected to satisfy the examiners that they possess a competent knowledge of at least one of these subjects, as a necessary condition of the issue of a certificate.

With regard to mathematics, my Lords propose next year (1893) to limit the geometry of the higher grade certificate to Euclid, Books I., II., III., IV., VI., and XI. (1-21), with deductions, and to recognise, as a necessary additional subject for honours, "modern geometry and higher algebra."

They think it well to give due warning as to this, and they trust that it may have the effect of increasing the thoroughness of instruction in the fundamental part of mathematical studies.

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#### SECONDARY EDUCATION.

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#### Enclosures to Circular 134.

#### NOTE AS TO LATIN AND GREEK PAPERS.

My Lords have had under cousideration various remarks submitted to them in regard to the examinations for the leaving certificate in Latin and Greek. Complaints have been made that in certain grades the papers set have sometimes been of undue difficulty. Without pronouncing any opinion as to this, my Lords agree that it is undesirable to set any test which is of an involved or confusing character. But while anxious to avoid undue difficulty, my Lords cannot hold out the hope that the test applied in judging the answers to such papers as may be set will be relaxed. One of the objections to undue difficulty in questions is, that this may very probably lead to undue leniency in the test applied. My Lords think it is more desirable to reverse the process; and, while restricting the questions or exercises to a moderate standard, to be severe in exacting a certain amount of correct answering as a minimum.

It is undoubtedly difficult, having regard to the diverse objects which these certificates have to serve, to fix the precise standard which ought to be maintained; but my Lords can only state that it will be their object to study the matter carefully in the light of experience, and in consultation with those best able to form an opinion.

It has been suggested that it might be at once more convenient, and more favourable to candidates, that the honours papers should not be altogether distinct from those of the higher grade. My Lords are accordingly prepared to arrange that the higher grade papers in Latin and Greek should be the same as the first honours papers; a second paper being added for the honours candidates. But it must be distinctly understood that before a higher grade certificate is issued the standard of marks required must be attained solely on the first paper, and that marks gained in the special honours paper will not be allowed to compensate for any failure in the paper which is common both to the higher grade and the honours.

Scotch Education Department, December 1890.

#### NOTE AS TO PAPERS IN MODERN LANGUAGES.

With respect to the papers in modern foreign languages, my Lords have recceived representations as to the extended scope given to these papers at the last examination by the introduction of questions on philology and literature.

These subjects undoubtedly formed a new element in the examination : and, looking to this fact, my Lords did not feel themselves justified in making the successful answering of questions of this kind an indispensable condition of the issue of a certificate. As might perhaps have been expected, the results were not generally satisfactory, so far as these subjects were concerned. But it must be distinctly understood that in no case was failure to obtain a certificate to be ascribed to a deficiency in this respect.

An objection, which my Lords do not cousider to have any real foundation, has been raised to the wide range of questions in these subjects. It must be evident that this range is greatly in favour of a candidate. To prescribe special authors would introduce an element into the examination which my Lords are anxious to avoid. As an alternative to this, it is cvidently most fair to the candidates to give a wide range of philological and literary questions, and to require that only a few questions, to the subject-matter of which any candidates may have given special attention, should be answered.

With regard to the general question of the introduction of such subjects, my Lords think that serious injury would be done to the study of modern languages, were their philological and literary aspect to be entirely ignored. The position which this study is to occupy in school education is one on which opinions are at present widely divided, and the questions arising in regard to this aud to the best practical means of attaining successful results have been the subject of careful consideration on the continent, and might with great advantage occupy the attention of those automst ourselves whose practical experience and educational authority is of weight. But, if besides giving conversational facility for practical purposes it is intended to provide, through the medium of these languages, for certain pupils, the mental training which others obtain from elassical studies, this end seems most likely to be attained not by limiting their range to translation and grammar, bu by adding to these the intellectual interest to be derived from study of the structure of the language, and from an acquaintance with some phase of the literature.

My Lords propose to continue to set a certain number of questions of this character, but those set in the lower certificate examination will be very elementary. Those set for the higher certificate will be rather more advanced, but in neither of these will the successful answering of philological or literary questions be considered for the present as a necessary condition of the issue of a certificate. In the case of honours, a wide choice of questions will be given, but a candidate will be expected to show that he has not neglected that aspect of the subject by which it may best become a means of intellectual training.

Scotch Education Department, December 1890.

#### NOTE AS TO MATHEMATICAL PAPERS.

#### Α.

#### Lower Grade Certificate.

To obtain a lower grade certificate in mathematics, candidates must pass in each of the three following subjects,\* but deficiency in any one paper may, to a certain extent, be compensated by excellence in others.

1. Arithmetic  $(1\frac{1}{2}$  hours), including practice, proportion, per-centage, square root, simple interest, vulgar and decimal fractions.

2. Algebra (11 hours), including fractions, factors, square root, equations of the first degree, simultaneous equations of the first degree, easy quadratic equations, problems leading to the above equations.

3. Geometry (2 hours). The subject matter of Euclid, Books I., II., and III., with easy deductions. Demonstrations other than Euclid's will be accepted if they assume no propositions which in Euclid's order are subsequent to the proposition under consideration.

\* Candidates for any grade must take all the papers belonging to that grade; *i.e.*, they may not take geometry and algebra of the lower grade and arithmetic of the higher, &c.

Candidates for a lower grade certificate may also take the paper in dynamics, success in which will be recorded on the certificate. No certificate in dynamics will be awarded to any candidate who does not obtain a certificate in mathematics.

The papers in geometrical conics and analytical geometry cannot be taken by candidates for a lower grade ccrtificate.

#### В.

#### Higher Grade Certificate.

To obtain a higher grade certificate candidates must pass in each of the four following subjects<sup>\*</sup>, but deficiency in any one paper may, to a certain extent, be compensated by excellence in others. They may also take any of the three additional subjects, success in which will be recorded on the certificate.

1. Arithmetic (11 hours). The whole subject.

2. Algebra  $(1\frac{1}{2}$  hours), as far as the binomial theorem, inclusive.

3. Geometry (2 hours). The subject matter of Euclid, Books I., II., III., IV., VI., and XI., with deductions, and such propositions in modern geometry as are usually taught as a sequel to Euclid.

4. Trigonometry and logarithms  $\dagger$  ( $1\frac{1}{2}$  hours), as far as the logarithmic solution of triangles, inclusive.

#### Additional Subjects.

1. Geometrical conics  $(1\frac{1}{2}$  hours). The properties of the parabola, ellipse, and hyperbola, and the sections of the cone treated geometrically.

2. Analytical geometry  $(1\frac{1}{2}$  hours). The straight line, the circle, and the conic sections treated by Cartesian co-ordinates, but not including the investigation of the general equation of the second degree.

3. Elements of dynamics  $(1\frac{1}{2}$  hours). Velocity, acceleration, the rectilineal motion of a uniformly accelerated particle, the laws of motion, the composition of forces, equilibrium, the centre of mass (gravity), common machines, work and energy, elementary hydrostatics, specific gravity.

#### С.

#### Honours Certificates.

The subjects for the honours certificate in mathematics are the same as those for the higher grade certificate, but the standard of proficiency required is higher.

To obtain an honours certificate the candidate must pass with exceptional credit in the first four subjects, and must also pass in two of the additional subjects.

Candidates for honours who fail to attain the standard necessary for honours, but show sufficient proficiency to merit a higher grade certificate, will be awarded such a certificate.

\* Candidates for any grade must take all the papers helonging to that grade; *i.e.*, they may not take geometry and algebra of the lower grade and arithmetic of the higher, &c.

<sup>†</sup> The use of a book of mathematical tables is allowed, provided it contain no manuscript notes or printed matter other than such as refers to the use of the tables. Each candidate should be provided with a separate book,

#### SECONDARY EDUCATION.

No candidate may take any of the additional subjects who is not a candidate for a certificate in mathematics, and no certificate of success in any of the additional subjects will be given unless the candidate obtain a certificate in mathematics.

#### D.

#### Book-keeping and Commercial Arithmetic.

To obtain a certificate in book-keeping and commercial arithmetic candidates must pass in each of the following papers :----

1. Book-keeping (3 hours). Candidates will be required to journalise, and thence post to their proper accounts in the ledger, a number of imaginary transactions of moderate difficulty, to adjust these accounts, and to set forth the final result either in the form of a balance sheet or a balance account. Credit will be given for style and accuracy as regards dates and folios.

Proper books will be provided.

2. Commercial arithmetic (2 hours). Arithmetic with special reference to discount, interest, exchange, foreign weights and measures, and such questions as are likely to arise in ordinary commercial transactions. An exercise in addition, involving speed and accuracy, will be given.

#### E.

#### Arithmetic Certificate.

Candidates may be examined in arithmetic alone, either in the lower or higher grade.

Candidates who fail to obtain a certificate in mathematics may be awarded a certificate in arithmetic if they show sufficient proficiency in that subject.

Scotch Education Department,

January 1892.

#### Higher Class Schools.

Inspection, 1892.

#### Circular 135.

#### SIR,

Scotch Education Department, 15th January 1892.

ADVERTING to their Lordships' circular letter of 15th January 1886, I am to state that my Lords have had under consideration the arrangements for the inspection of higher class schools in the current year.

I am accordingly to request you to inform my Lords, as soon as possible, whether inspection is this year desired for the school which you represent. Should inspection be desired one of each of the enclosed forms should be filled up and forwarded to the Department in due course.

All schools from which pupils are presented for the leaving certificate must be inspected under the direction of my Lords, but it is not necessary that the inspection should take the form of a detailed written examination every year. In regard to this, their Lordships would be glad to learn the views of the managers.

> I have, &c. H. CRAIK.

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#### Higher Class Schools.

Circular 136.

Inspection under the Educational Endowments (Scotland) Act, 1882.

> Scotch Education Department, 15th January 1892.

WITH a view to the completion of arrangements for the inspection of higher class schools this year, I am directed by my Lords to inquire at what time it will be most convenient that the inspection of the above school, in terms of section 19 (or section 45) of the Educational Endowments (Scotland) Act, 1882, should take place.

My Lords would be glad if you would, at your early convenience, fill up and forward to the Dcpartment one of each of the enclosed forms.

Where pupils are presented for the leaving certificate, it is not neccssary that the inspection should take the form of a detailed written examination every year. In regard to this, their Lordships would be glad to learn the views of the governing body.

> I have, &c. H. CRAIK,

#### Higher Class Schools. Leaving Certificate, 1892.

Circular 138.

SIR,

Scotch Education Department, 1st April 1892.

I AM directed to remind you that the examination for leaving certificates will begin on Monday the 13th June, and I am to give the following further particulars with respect to it.

About a month before the examination, my Lords will issue a form, on which they will ask for exact information as to the numbers to be examined in the various grades of each subject.

The following subjects will be included in the examination :--English (including questions on Modern History and Geography), Latin, Greek, French, German, Mathematics (including Arithmetic), and Bookkeeping with Commercial Arithmetic.

Certificates of three grades,--lower, higher, and honours--will be given in each of these subjects except book-keeping and commercial arithmetic, where one grade of certificate only will be given.

For information as to the arrangement of the papers and the character of the questions in Latin, Greek, modern languages, and mathematics, I am to call your attention to the notes which have already been sent to you.

As on previous occasions, the examination will be general and not in prescribed books. In the English papers, where this might operate unfairly, my Lords will endeavour to meet the difficulty by giving a considerable choice of questions in history, literature, and geography. Such an amount of knowledge as will enable a candidate to answer a sufficient number of the questions set in history and geography, may be expected from every pupil, and candidates will be required to satisfy

SIR,

the examiners that they possess a competent knowledge of at least one of these subjects.

My Lords noticed last year, with regret, that a large number of candidates were presented in a grade higher than their attainments warranted, and thus the number of failures was considerably increased. They are of opinion that candidates should not be presented in a grade higher than that in which they are likely to pass, and they fear that the issue of certificates, in certain cases, in a lower grade than that in which candidates are presented, has to some extent encouraged the practice. They will not at present withdraw this concession; but they desire to give notice that this year a certificate of a lower grade will not be issued except under more stringent conditions than in previous years, and only in those cases where the circumstances appear fully to justify such a course. Their Lordships will be unable to issue a lower grade certificate in English, or in any language, to candidates who take papers in the honours grade and fail to qualify for a certificate in the higher or honours grade.

In Latin, Greek, French, German, and English two papers will be required in the honours grade. In book-keeping and commercial arithmetic, separate papers will be set, but a certificate will be granted to those candidates only who pass in both branches.

As you have already been informed, my Lords propose that the examination should take place simultaneously in each school, beginning on Monday, June 13. The subjects will be taken in the following order :---

| Monday, Juue 13th -  | 10 a.m. | Arithmetic.                  |
|--|---------|------------------------------|
| 37 27 27 <del>-</del>  | 12 noon | Geometry.                    |
|  | 3 p.m.  | Algebra.                     |
| Tuesday, June 14th -   | 10 a.m. | English.                     |
|  | 2 p.m.  | English (2nd honours paper). |
| Wednesday, Juue 15th   | 10 a.m. | French.                      |
| 29 29 29 29  | 2 p.m.  | French (2nd honours paper).  |
| Thursday, June 16th  | 10 a.m. | Latin.                       |
| 22 22 23   | 2 p.m.  | Latin (2nd honours paper).   |
| Friday, June 17th -  | 10 a.m. | Greek or Book-keeping.       |
| 22 23 27 -   | 2 p.m.  | Greek (2nd honours paper) or |
| The second s |         | Commercial Arithmetic.       |
| Monday, June 20th -  | 10 a.m. | Trigonometry and Loga-       |
| 1000   |         | rithms.*                     |
| ,, ,, ,, -   | 12 noon | Analytical Geometry.         |
| ** *** **  | 2 p.m.  | Dynamies.                    |
| <b>77 77 77 -</b>  | 4 p.m.  | Geometrical Conics.          |
| Tuesday, June 21st -   | 10 a.m. | German.                      |
| »» »» »» <del>–</del>  | 2 p.m.  | German (2nd honours paper).  |
| a contract of the second second  |         |                              |

On each occasion, the papers for the lower grade, the higher grade, and the honours grade certificate, in cach subject, will be set simultaneously. The time allowed, except where otherwise stated, for each

\* The use of a book of mathematical tables is allowed, provided it contain no manuscript notes or printed matter other than such as refers to the use of the tables. Each candidate should be provided with a separate book. paper in languages and English will be two hours and a half in the lower grade, and three hours in the higher and honours grades. For the time allowed for the various subjects in mathematics, you are referred to the note as to mathematical papers.

The authorities of the school must provide a suitable room or rooms for the examination, and pens, ink, scroll paper (on which no notes of any sort should appear), and blotting paper. Slates may not be used, nor pencils except in the drawing of mathematical figures. The books in which the answers are to be written will be supplied by the Department, and will be forwarded to the head master a few days before the examination. Any candidate introducing any book or note of any kind into the examination room, or detected in copying, will be instantly dismissed, and the case reported to the Department.

My Lords will appoint an officer to represent the Department at the examination. He will distribute the papers and supervise the examination. If, in any subject, all the candidates cannot be accommodated in one room, information must be sent to the Department at least one month before the examination, so that a second supervising officer may be appointed. Such supervision cannot be entrusted to anyone who does not represent the Department.

The selection of candidates from any school rests entirely with the authorities of that school, and, in regard to this, they must act on their own responsibility. At the same time, in order that this examination may form a satisfactory supplement to the inspection of the separate schools, it is understood that, as a general rule, the pupils of the highest class, or of the highest class and that next to it, in each school, should be presented. It is undesirable, if the examination is to serve as a test of the real merits of a school and the scope of its curriculum, that the candidates should be eonfined only to a few selected pupils. But, having indicated this view, my Lords do not desire to lay down any strict rule which might interfere with the discretion of the managers.

In the case of candidates who desire to qualify by this examination for exemption from examinations of the University of Oxford, or the University of Cambridge, it is essential that notice should previously be given to this Department, and a list of the names of such candidates must be furnished on a form for this purpose, which may be obtained on application to the Department. If, subsequently, candidates should determine not to proceed to either University, notice must be given *before* the 25th July. In the absence of such notice, the papers will be sent to the Schools' Examination Board, and the ordinary fee will fall to be paid to that Board.

> I have, &c. H. CRAIK.

#### Circular 140.

#### Scotch Education Department, 20th April 1892.

You are doubtless aware that under the Education and Local Taxation Relief (Scotland) Bill, now before Parliament, it is proposed to allot a certain sum for the encouragement of secondary education, and my Lords would hope that, as indicated by the Lord Advocate, a share in any such grant would fall to higher departments established with due approval in connexion with the ordinary schools.

Their Lordships are anxious that such higher departments should be in a position to make use of any advantages which Parliament may place within their reach; and, with this view, they are prepared this year to admit to the leaving certificate examination, which begins on the 13th of June, candidates from any such departments as may appear, upon duc inquiry, to be of a character to claim a share in any grant which may become available under that Bill.

I am accordingly to ask you to notify forthwith the names of any such candidates, and to state the character and organisation of the department with which they are connected, so that my Lords may be in a position to satisfy themselves that the department is of the kind indicated.

I have, &c. Н. Скајк.

#### MEMORANDUM.

A large number of university and professional authorities have announced their readiness to accept the leaving certificate in lieu of such preliminary examinations as are held under their directions.

Amongst these we may name :---

The Lords of Council and Session (for the purposes of the Law Agents Act);

The War Office and the Civil Service Commissioners, for the Army Preliminary Examination;

The University of Oxford;

The University of Cambridge;

The Universities of Edinburgh, Glasgow, and St. Andrews, for the preliminary examination for the three years' course ;

The General Medical Council;

The Royal College of Surgeons of Edinburgh;

The Pharmaceutical Society of Great Britain;

The Society of Solicitors before the Supreme Courts;

The Institute of Accountants and Actuaries in Glasgow;

The Society of Accountants in Edinburgh; and

Girton College, Cambridge.

SIR,

My Lords arc informed that the leaving certificate of the Seotch Education Department is accepted by the University of Oxford under the following conditions :---

#### I.—IN LIEU OF RESPONSIONS.

No certificate is accepted unless the eandidate has passed in at least four subjects at one examination, three of which subjects shall be Greek, Latin, and Elementary Mathematies.

By passing is to be understood-

- (a) In elementary mathematics—passing in the lower grade.
- (b) In Latin and Greek—passing in the higher grade.
- (c) In French and German-passing in the higher grade.
- (d) In English—passing in the higher grade.
  (e) A caudidate passing in higher mathematics (including analytical) geometry, geometrical conies and dynamies), might count this as equivalent to passing in elementary mathematics, and the required fourth subject (see first paragraph).

#### II.-IN LIEU OF RESPONSIONS, TOGETHER WITH AN ADDITIONAL SUBJECT.

Those caudidates who, having satisfied the above conditions, obtain an houours certificate in Greek and Latin, or, in addition to four other subjects, obtain a higher grade certificate in French or German, are eonsidered to have passed an examination equivalent to responsions, together with an additional subject.

#### General.

The written work of those candidates who apply to have their certificates accepted will have to be submitted to the awarding examiners of the schools examination board.

A special fec of 5s. will be charged for each caudidate whose papers arc thus submitted.

Also, that the following recommendations have been approved by the Senate of the University of Cambridge :--

1. That the highest grade schools examination syndicate be authorised to examine the papers of candidates to whom certificates have been awarded by the Scotch Education Department, and to report to the Viee-Chancellor upon their sufficiency.

2. That in the ease of candidates whose certificates, granted by the Seoteh Education Department, are endorsed by the Vice-Chancellor on the recommendation of the highest grade schools examination syndicate, the higher grade elassical papers of the Seotch Education Department be accepted as equivalent to the papers other than the paper on the Greek Gospel or its substitute, in Part I. of the previous examination.

3. That in the ease of eandidates whose eertificates, granted by the Seotch Education Department, are endorsed by the Vice-Chancellor on the recommendation of the highest grade schools examination syndicate, the higher grade mathematical papers of the Seoteh Education Department be accepted as equivalent to the papers, other than the

paper on Paley's Evidences or its substitute, in Part II. of the previous examination.

4. That candidates who hold a higher grade certificate in Latin and Greek, endorsed as above, be required to pass in the paper on the Greek Gospel or its substitute, in order to be excused from Part I. of the previous examination, and shall pay a fee of five shillings on admission to examination in such paper.

5. That candidates who hold a higher grade certificate in mathematics, endorsed as above, be required to pass in the paper on Paley's Evidences or its substitute, in order to be excused from Part II. of the previous examination, and shall pay a fee of five shillings on admission to examination in such paper.

6. That in the case of candidates whose certificates, granted by the Scotch Education Department, are endorsed by the Vice-Chancellor on the recommendation of the highest grade schools examination syndicate, the higher grade papers of the Scotch Education Department in French, or in German, or in trigonometry and dynamics, be accepted as equivalent to the papers in the additional subjects in the previous examination.

7. That the certificates of any undergraduates who claim exemption from either part of the previous examination, or from the examination in the additional subjects, by virtue of the above regulations, be presented to the registrary in their first term of residence, and that a fee of 1/. for the registration of each certificate of exemption from examination in Part I. or in Part II., or in the additional subjects of the previous examination, be paid at the same time to the registrary. No certificate, not presented in a student's first term of residence, shall be valid without the express permission of the council.

8. (a.)—That the papers of candidates desiring to proceed to this university, to whom certificates have been awarded by the Scotch Education Department, be submitted to the highest grade schools examination syndicate.

(b.)—That a special fee of 5s. be charged for each candidate whose papers are thus submitted.

#### LEAVING CERTIFICATE, 1892

#### EXAMINATION PAPERS.

#### ENGLISH.

#### LOWER GRADE.

#### Tuesday, 14th June. 10 A.M. to 12.30 P.M.

#### SECTION I.

1. Write out and punctuate the passage read for dictation.

2. Paraphrase the following lines :---

"Ye powers who rule the tongue, if such there are, And make colloquial happiness your care, Preserve me from the thing I dread and hate, A duel in the form of a debate. The clash of arguments and jar of words, Worse than the mortal brunt of rival swords, Decide no question with their tedious length (For opposition gives opinion strength), Divert the champions prodigal of breath, And put the peaceably disposed to death."

- 3. Analyse the first four lines of the above quotation.
- 4. Which of the words in the passage quoted in Question 2 are of classical origin? Give the derivations of *five* of these words. Point out native suffixes in any words in the passage.
- 5. Parse the italicised words in the following sentences :---
  - (a) The labourer was promised his dinner.
  - (b) Woe is me!
  - (c) Accordingly I refused his offer.
  - (d) There were a great many spectators.
  - (e) It is foolish to boast.
  - (f) I have plenty to say.
  - (g) The holidays being near, he talks of going to the sea-side.
- 6. Distinguish, with a few illustrations, the principal ways of marking gender in English nouns.
- 7. Explain the meaning of the terms strong verb, impersonal verb, mood, tense. How does the clause If I were guilty differ in meaning from the clause If I was guilty? How does the

Not more than TEN questions to be attempted, of which at least FIVE must be in Section I., at least ONE in Section II., and at least ONE in Section III.

sentence His influence increased year by year differ in meaning from the sentence His influence has increased year by year?

- 8. Give some account of the state of English literature during one of the following periods:—(a) the reign of Richard II.; (b) the reigns of the first two Tudors; (c) the reign of James I. (of England); (d) the reigns of Charles II. and James II.; (e) the reigns of the first two Georges; (f) the last quarter of the eighteenth eentury; (g) the first quarter of the nineteenth eentury.

#### 10. Point out, and eorreet, any faults in the following sentences :--

- (a) Neither his father or his mother are aware of his absence.
- (b) I never have and never will believe it.
- (c) Farmers find it more profitable to sell their milk wholesale to some London dealer rather than retail it in their own locality.
- (d) The fops of that day used the abominable art of painting their faces as well as the women.
- (c) I must differ from you there: your second statement eannot be reconciled to your first.

#### SECTION II.

- 11. Write a short life of Alfred the Great, or of Ethelred the Unready, showing the effects upon the history of England of the policy pursued by either.
- 12. Give an account of the various risings that William the Conqueror had to suppress, with special reference to the part played by Malcolm Canmore. When did the Norman Baronage cease to be troublesome to the English Kings?
- 13. Sketch the course of events that led to the granting of the Great Charter, and enumerate some of its most important provisions.
- 14. Sketch the history of Seotland from the death of Alexander III. down to the defeat of Wallace.
- 15. Give a brief account of each of the following:—The Black Death, the Statute of Labourers, the Statute of Præmunire, the Peasants' Revolt, the Merciless Parliament.
- 16. Explain the various eireumstances that brought about the Wars of the Roses, and trace the history of the wars down to the death of Henry VI.
- 17. "The Tudors were all popular when they obtained the crown, and unpopular before they died." How far is this true?
- 18. Give some account (a) of the reign of James VI. of Scotland before his accession to the English throne, and (b) of the various subjects on which he quarrelled with the English Parliament.

- 19. What were the causes of the War of the Spanish Succession? Narrate the history of the campaign of Blenheim, or of the capture of Gibraltar, and give some account of the terms on which peace was made.
- 20. Write a short life of the younger Pitt, explaining the eircumstances under which he became Prime Minister, his domestic policy, his views of the French Revolution, his Irish policy, and the eauses of his resignation.

#### SECTION III.

- 21. A vessel sails from Aberdeen to Hull, calling at all the chief ports. What kind of cargo might she hope to pick up at each, and what headlands or capes might she sight?
- 22. Name the principal centres of deep-sca fishery in Scotland, and the places in Scotland to which you would send for cotton goods, iron, whisky, coal, steamers, tweed, wheat.
- 23. Draw a map of England south of the Severn and west of Wiltshire, or a map of the four northern counties of England.
- 24. Draw a map of Spain, showing the chief physical features, or a map of the Balkan Peninsula, showing the political divisions.
- 25. Give some account of the discovery of Australia, of the difficulties encountered in exploring the interior of it, of any animals or plants peculiar to it, and of its political divisions and government.

#### ENGLISH.

#### LOWER GRADE.

#### Tuesday, 14th June. 10.45 A.M.

#### Passage for Dictation.

I am just returned from Westminster Abbcy, the place of sepulture for the philosophers, heroes and kings of England. What a gloom do monumental inscriptions and all the venerable remains of deccased merit inspire ! Imagine a temple marked with the hand of antiquity, solemn as religious awe, adorned with all the magnificence of barbarous profusion, dim windows, fretted pillars, long colonnades and dark eeilings. Think, then, what were my sensations at being introduced to such a secne. I stood in the midst of the temple, and threw my eyes round on the walls, filled with the statues, the inscriptions and the monuments of the dead.

#### ENGLISH.

#### HIGHER GRADE AND FIRST PAPER FOR HONOURS GRADE.

#### Tuesday, 14th June. 10 A.M. to 1 P.M.

Not more than TWELVE questions to be attempted, of which at least FIVE must be in Section I., at least TWO in Section II., and at least TWO in Section III. Question 1 must be taken.

#### SECTION I.

- 1. Write an essay of two or three pages on one of the following subjects:----
  - (a) The place in which you live.
  - (b) The uses of novel-reading.
  - (c) Patriotism, true and false.
- State, and exemplify, the correct usage of *shall* and *will*. Are the following usages good English, and, if so, why ?—(a) I will give you a holiday if you deserve it; (b) Shall you go to the eoncert to-night? (e) He said he should go to the eoncert.
- 3. Illustrate the statements that, in the English Alphabet, (a) one letter represents different sounds, (b) one sound is represented by different letters.
- 4. State (a) the origin of any *three* of the following :—an, none, what, she, the preterite suffix -ed; (b) the derivation of any *five* of the following :—thirteen, disastrous, omnibus, lunatie, chapter, twilight, sample, quinsy, provost, outrage.
- 5. What facts in the history of the English language can you illustrate from the existence of the doublets *ward* and *guard*, *evil* and *ill*, *poor* and *pauper*, *church* and *kirk*?
- 6. When, and by whom, were the following works written :--Utopia, The Vicar of Wakefield, Gulliver's Travels, The Spectator, Samson Agonistcs, Hyperion, The Rape of the Loch, Childe Harold, The Vision of Piers the Plowman? Give a short account of any two of these works.
- 7. What was the general character of English Literature at the time when *The Pilgrim's Progress* was written? Why is it called an allegory? Can you compare it with the *Fairy Queen*?
- 8. Describe in full one of Chaueer's Canterbury Pilgrims, or one of Shakespeare's heroines, or one of Scott's humorous characters.
- 9. Point out, and eorreet, any faults in the following sentences :---
  - (a) Neither his father or his mother are aware of his absence.
  - (b) I never have and never will believe it.
  - (c) Farmers find it more profitable to sell their milk wholesale to some London dealer rather than retail it in their own locality.
  - (d) The fops of that day used the abominable art of painting their faces as well as the women.
  - (e) I must differ from you there: your second statement cannot be reconciled to your first.

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> I have lived my life, and that which I have done May He within Himself make pure! But thou, If thou should'st never see my face again, Pray for my soul. More things are wrought by prayer Than this world dreams of. Wherefore, let thy voice Rise like a fonntain for me night and day. For what are men better than sheep or goats That nourish a blind life within the brain, If, knowing God, they lift not hands of prayer Both for themselves and those who call them friend ? For so the whole round earth is every way Bound by gold chains about the feet of God.

#### SECTION II.

- 11. Give an account of the reign of Edward the Confessor, with special reference to the position and policy of Earl Godwin and his sons.
- 12. Name any instances, between 1066 and 1400, in which the English crown did not pass from father to eldest son, and explain the reasons in each case.
- 13. Give an account of the parentage, relationships, and education of David I. Describe his policy, and its results to Scotland.
- 14. Write a short life of Simon de Montfort.
- 15. What were the causes that led to the outbreak of the Hundred Years' War between England and France? Account for its long duration, and estimate its effect upon each of the two countries. In what position did they stand at the close of the reign of Edward III.?
- 16. Sketch the history of the Reformation in Scotland down to the death of Mary of Guise, and contrast its origin and final settlement with the corresponding movement in England.
- 17. What were the most important measures of the Long Parliament down to the beginning of the Civil War? How did the Long Parliament come to an end?
- 18. Write short notes on the Five Mile Act, Test Act, Habeas Corpus Act, Toleration Act, Mutiny Act, Claim of Right and Act of Settlement, explaining the circumstances under which they were severally passed.
- 19. Sketch the political life of Sir Robert Walpole, describing his character and policy as shown both in opposition and during his ministry.
- 20. Describe the political and social condition of Great Britain in the period immediately after Waterloo. What do you know of Brongham, Huskisson, Canning, Grey, O'Connell?

#### SECTION III.

21. From what ports in Great Britain would you start for Hamburg, Riga, Boulogne, Marseilles, Bergen, Madeira, Malta, Valparaiso, New York, Melbourne, Montreal, Triuidad? About how long would the voyage by steamer take in each case?

- 22. Draw a map of Ireland, and show the position of the chief mountain ranges, rivers, and lakes. Name the various routes to England and Scotland, and the chief articles exported.
- 23. Draw a map of the Basin of the Forth *or* the Trent, showing the towns and indicating their historical or commercial importance.
- 24. Describe the main physical divisions of India, and the principal products of each; add short notes on the Monsoons, the North-West Frontier, and Caste.
- 25. What are the physical and geographical conditions that determine the temperature, rainfall, general climate, and productiveness of any place? Give examples.

#### ENGLISH.

#### HONOURS.-SECOND PAPER.

#### Tuesday, 14th June. 2 to 5 P.M.

#### SECTION I.

- 1. Illustrate the statement that poetry flourished in Scotland at the close of the fifteenth eentury and the opening of the sixteenth. Can you suggest any reasons for the fact?
- 2. What kinds of literature flourished most in England between 1580 and 1620? Write an account of any Book of the *Fairy Queen*, or of any tragedy by Shakespeare, or of any work by Bacon.
- 3. Contrast the poetry of Milton with that of Pope, or the spirit of Addison's writings with the spirit of Swift's, or the poetry of Wordsworth with that of Scott, or the style of Macaulay with that of Carlyle.
- 4. Describe any two of the following characters :--Macbeth, Shylock, Brutus in Julius Cæsar, Satan in Paradise Lost, Sir Roger de Coverley, Mr. Great-heart, Diana Vernon, Mr. Pickwick, Colonel Newcome, Enoch Arden.
- 5. How does *Robinson Crusoe* seem to you to differ most from the tales of adventure written at the present time ?
- 6. Take any period of fifty years since the Norman Conquest, and discuss with reference to it the statement that the literature of an age reflects the political and social condition of the ago

#### SECTION II.

#### Optional Questions.

7. Translate into English :---

Nũ segð ũs sẽo bốc be Nõës ofspringe, þæt his suna gestrindon twā and hundseofontig suna, þa begunnon tö wireenne þä wundorlican burh and þone heagan stipel þe secolde ästigan üpp tö heofenum, be heora unræde ; ac God silf com pær to, and seöawode heora weorc, and sealde heora ælcum synderlice spræce, pæt heora ælcum wæs uncūð hwæt öper sæde, and hi swä geswicon söna pære getimbrunge, and hi ðä töferdon to fyrlenum lande on swä manegum gereordum swä þæra manna wæs.

- 8. Decline *three* of the nouns italicised in the above passage; and give the infinitive, 3rd person singular present indicative, plural preterite indicative, and past participle of each of the italicised verbs.
- 9. In what dialects are the following passages written? State, in detail, the reasons for your answer. From what dialect was modern English developed?

(a.) Ich y-ze3 nyxt icsu crist pe ilke blisfolle mayde and moder myd alle worpssipe and renerence y-nemned marie, ine pe wonderuolle trone zittynde, aboue alle pe holy ordres of angles and of men an-he3ed, hire zone iesus nor ous byddinde, and to huam hi is nol of merci. Ac pe ilke wonderuolle magesté and pe bri3tnesse of pe moder and of pe zone ich ne my3te na3t longe polye: ich wente myne zi3pe nor to yzi pe ilke holy ordres of pe gostes pet stondep benore god.

- (b) Schipmen soue war efter sent, To here pe kinges cumandment; And pe galaies men also, pat wist both of wele aud wo. He cumand pan pat men suld fare Till Ingland and for ne thing spare, Bot brin and sla both man and wife, And childe, pat none suld pas with life. pe galay men held vp paire handes, And thanked God of pir tipandes.
- 10. Sketch the history of the influx of French words into English from the Norman Conquest to the time of Chaucer. What truth is there in the statement that Chaucer "corrupted" the English language by a free introduction of French words?
- 11. Discuss the question whether English has, on the whole, gained or lost by becoming, as compared with Anglo-Saxon, an un-inflected language.

#### LATIN.

#### LOWER GRADE.

#### Thursday, 16th June. 10 A.M. to 12.30 P.M.

#### Candidates should in all cases attempt Question 5.

1. Translate into English :---

Sub vesperum Caesar portas claudi, militesque ex oppido exire iussit, ne quam noctu oppidani ab militibus iuiuriam acciperent. Illi, ante inito, ut intellectum est, consilio, quod deditione facta nostros praesidia deducturos, aut denique indiligentius servaturos erediderant, partim eum his, quae retinuerant et eelaverant, armis, partim seutis ex cortiee factis, aut viminibus intextis, quae subito, ut temporis exiguitas postulabat, pellibus induxerant, tertia vigilia, qua minime arduus ad nostras munitiones adscensus videbatur, omnibus eopiis repente ex oppido eruptionem feeerunt. Celeriter, ut ante Caesar imperarat, ignibus significatione faeta, ex proximis eastellis eo concursum est pugnatumque ab hostibus ita aeriter, ut a viris fortibus, in extrema spe salutis, iniquo loco, eontra eos, qui ex vallo turribusque tela iacerent, pugnari debuit.

- 2. Parse the words printed in italies; give, in each ease, the exact reason for the ease or mood employed, with the principal parts of the verbs.
- 3. (a) Give the gender, the deelension, the ablative singular and the genitive plural, of the following nouns, marking in each ease the quantities of the syllables :- laurus, pecus, iter, vis, palus (a marsh), crus, ales, clavis, gener, triumvir, respublica, dies.
  - (b) Give the comparative and superlative of -audax, providus, prope, aeger, gracilis, dives.
  - (c) Write down, in tabular form, the

    - 2nd plural perf. indic. act.;
       3rd sing. imperf. subj. pass.;
    - (3) 3rd plur. perf. subj. pass.;
    - (4) future participle, and
    - (5) the meaning, of

vincio, fodio, sterno, spondeo, veto, censeo, tango, experior.

(d) Give the exact meaning of-alius, alter, uterque, quicumque, nonne, quisque, quisquam, at enim ; and give the Latin forsix, six a-piece, sixth, sixty, sixty times, six hundred, six hundredth, six thousand six hundred and sixty-six.

4. Translate into Latin :--

- (1) Did any one forgive me my fault?
- (2) The enemy, having been defeated by Cæsar, retreated to Gaul.
- (3) Having gained many vietories, he returned home to die.
- (4) I think that these fields will be eultivated.
- 5. Translate into Latin :-

Now I saw that just on the other side of this plain, the travellers eame to a place where stood an old monument, hard by the highway side, at the sight of which they were both dismayed, because of the strangeness of the form thereof; for it seemed to them as if it had been a woman transformed into the shape of a pillar. Here, therefore, they stood, looking and looking upon it, but could not for a time tell what they should make thereof. At last one of the two travellers espied, written above the head thereof, a writing in an unusual hand; but he being no scholar, called to the other (for he was learned) to see if he could pick out the meaning. So he eame, and after a little laying of the letters together, he found the writing to be "Remember Lot's wife."

#### LATIN.

#### HIGHER GRADE AND FIRST PAPER FOR HONOURS GRADE.

#### Thursday, 16th June. 10 A.M. to 1 P.M.

Candidates will not receive a certificate unless they reach the necessary standard both in Latin Prose Composition and in Translation.

#### 1. Translate into Latin :---

I find it recorded that Pericles went in person to conquer the faithless Euboea, and that before sailing to attack the island he warned the Athenians against an inconsiderate parsimony, which ends too often in fruitless expenditure. He told them plainly that Euboea was capable of a protracted and obstinate resistance ; and admonished them that, whatever reverses the arms of Athens might experience, they should continue the war, and that whoever should counsel the separation of Euboea should be declared guilty of treason, and capitally punished. "For if Thebes," said he, "in a future war should take possession of this productive eountry, and block up the passage of the Euripus, she would gain an advantage over us from which we would never recover. Losses, defeats, inadequate supplies, may tempt her ; she would always have Sparta for au ally. But give me now fifty galleys and five thousand men, and Euboea shall fall before Sparta can come to her assistance."

#### 2. Translate into English :---

- (1) Cur igitur festum Veneris Vinalia dicant quaeritis, et quare sit Iovis ista dies ? Turnus, an Aeneas, Latiae gener esset Amatae, bellum erat. Etruscas Turnas adorant opes. Clarus erat, sumptisque ferox Mezentius armis : et vel equo magnus, vel pede maior erat. Quem Rutuli Turnusque suis adsciscere tentant partibus. Haec contra dux ita Tuscus ait : 'Stat mihi non parvo virtus mea. Vulnera testor, armaque, quae sparsi sanguine saepe meo. Qui petis auxilium, non grandia divide mecum praemia, de lacubus proxima musta tuis.
  - Nulla mora est operi : vestrum dare, vincere nostrum est ; Quam velit Acneas ista negata mihi !'

(2) Romae haud minus terroris ac tumultus erat quam fuerat biennio ante, cum castra Punica obiecta Romanis moenibus portisque fuerant : neque satis constabat animis, tam audax iter consulis laudarent vituperarentne: apparebat-quo nihil iniquius est-ex eventu famam habiturum. Castra prope Hannibalem hostem relicta sine duce, cum exercitu cui detractum foret omne quod roboris, qu d floris fucrit; et consulem in Lucanos ostendisse iter, quum Picerum et Galliam peteret, castra relinquentem nulla alia re tutiora quam errore hostis, qui ducem inde atque exercitus partem abesse ignoraret. Quid futurum, si id palam fiat, et aut insequi Neronem cum sex millibus armatorum profectum Hannibal toto exercitu velit, aut castra invadere pracdac relicta sine viribus, sine imperio, sine auspicio? veteres eius belli clades, duo consules proximo anno interfecti terrebant : et ea omnia aceidisse, cum unus imperator, unus exercitus hostium in Italia esset: nune duo bella Punica facta, duos ingentes exercitus, duos prope Hannibales in Italia esse.

#### 3. Translate into Latin :---

- (1) I am so far from admiring him that I shall try to injure him as much as possible.
  - (2) He said that if he had done this earlier the eity would easily have been saved.
  - (3) The more I see of him the less I like him.

And construct sentences exhibiting the following words with their proper meanings and constructions :---

quominus, quippe qui, quotus, invideo, quamquam, simulatque, quisquam, consulo.

4. Answer one of the following questions, not both :---

(1) Give a very short account of the causes of the First and Second Punic Wars respectively, with the names and dates of the principal battles fought in each.

(2) Enumerate the different *comitia* known to the Roman constitutiou, explain very shortly the constitution of each, the mode of voting employed, and state the main functions exercised by each during the days of the Republic.

#### LATIN.

#### HONOURS. SECOND PAPER.

#### Thursday, 16th June. 2 to 5 P.M.

#### 1. Translate into Latin :----

He who has once stood beside the grave to look back upon the eompanionship for ever closed, feeling how impotent there are the wild love and the keen sorrow to give one instant's peace to the pulseless heart, or to atone in the lowest measure to the departed spirit for the hour of unkindness, will searcely, for the future, incur the debt to the heart which can only be discharged to the dust.

#### 2. Translate into English :--

Dum trahitur pendetque iugis, hunc lata reteetum laneea consequitur rumpitque infixa bilicem loricam et summum degustat vulnere corpus. Ille tamen clipeo obiecto couversus in hostem ibat, et auxilium ducto mucrone petebat : cum rota praecipitem et proeursu concitus axis impulit effunditque solo, Turnusque seeutus imam inter galeam summi thoracis et oras abstulit ense caput, truncumque reliquit arena.

#### 3. Translate :---

Quid refert, vivas numerato nuper an olim ? Emptor Aricini quondam Veientis et arvi emptum coenat olus, quamvis aliter putat; emptis sub noetem gelidam lignis calefactat aënum ; sed vocat usque suum, qua populus adsita certis limitibus vieina refugit iurgia: tamquam sit proprium quidquam, puncto quod mobilis horae nunc prece, nunc pretio, nunc vi, nunc morte suprema permutet dominos et cedat in altera iura. Sic, quia perpetuus nulli datur usus, et heres heredem alterius velut ında supervenit undam, quid vici prosunt aut horrea ? quidve Calabris saltibus adiecti Lncani, si metit Oreus grandia cum parvis, non exorabilis auro ?

#### 4. Translate :---

Quid autem agebatur, nisi nc deleri et everti rempublicam funditus velles, quum te neque principcs civitatis rogando, neque maiorcs nath monendo, neque frequens senatus agendo, de vendita atque addicta sententia demovere potuit? Tum illud, multis rebus ante tentatis, necessario tibi vulnus inflictum, quod paucis ante te: quorum incolumis fuit nemo. Tum contra te dedit arma hic ordo consulibus reliquisque imperiis et potestatibus: quae non effugisses, nisi te ad arma Caesaris contulisses.

#### 5. Translate :---

Pulso Tarquinio, adversum patrum factiones multa populus paravit tuendae libertatis, ct firmandae concordiae : creatique dccemviri, et accitis quae usquam cgregia compositae duodecim tabulae, finis aequi iuris. Nam seentae leges, etsi aliquando in maleficos ex delicto, saepius tamen dissensione ordinum et apiscendi inlicitos honores, aut pellendi claros viros, aliaque ob prava, per vim latae sunt. Hinc Gracchi et Saturnini, turbatores plebis; nec minor largitor nomine senatus Drusus; corrupti spe, aut inlusi per intercessionem socii. Ac ne bello quidem Italico, mox civili, omissum, quin multa et diversa seiscerentur : donec L. Sulla dictator, abolitis vel conversis prioribus, cum plura addidisset, otium ei rei haud in longum paravit.

## 6. Explain and illustrate the meaning and construction of the words italicised in the following passages :---

- Quoque minus dubites, sie has deus aequoris artes Adiuvet, ut nemo iamdudum litore in isto, Me tamen excepto, nec femina constitit ulla.
- (2) Sunt qui non habeant, est qui non curat haberc.
- (3) Alii thoracas aenos Aut levis ocreas *lento ducunt argento*.
- (4) Ipsae inter se legiones octava et quiutodecima ferrum parabant, ni miles nonanus preces et minas interiecisset.
- (5) Blandum et auritas. fidibus canoris Ducere quereus.
- (6) Macte esto virtute, puer.

#### EXAMINATION PAPERS.

- (7) Ingemescunt pugiles non quod doleant, sed quia profundenda voce omne corpus intenditur, venitque plaga vehementior.
- (8) Nec vox hominem sonat.

7. Scan the following lines :----

- (1) Effuge, ait, ripas ; dicta refertque Iovis.
- (2) Quique vos bobus veneratur albis.
- (3) Nympha decus fluviorum animo gratissima nostro.
- (4) Vel occidentis usque ad ultimum sinum.

8. Answer one (not both) of the following questions :--

(1) Give a very short account of any four Roman authors (two poets and two prose writers); giving, in each case, the full name, the birthplace, date of birth and death, list and subjects of principal works, with their approximate dates if you can.

(2) Give, very shortly, an estimate of the causes which were at work from the time of Caius Gracchus onwards tending to the destruction of the old Roman Commonwealth, and leading towards Monarchy.

#### GREEK.

#### LOWER GRADE.

Friday, 17th June. 10 A.M. to 12.30 P.M.

1. Translate :--

Ουτω δί ό Κυρος καταθείς τὰ ὅπλα εἰς τὸ μέσον καὶ συγκαλέσας πάντας τοὺς Περσῶν στρατιῶτας ἕλεξε τοιάδε ἀνδρες Πέρσαι, ὑμεῖς καὶ ἔφυτε ἐν τῆ αὐτῆ ἡμῦν καὶ ἐτράφητε, καὶ τὰ σώματά τε οὐδὲν ἡμῶν χείρονα ἔχετε, ψυχάς τε ὑμῦν προσήκει οὐδὲν χείρονας ἡμῶν ἔχειν. τοιοῦτοι δ' ὅντες ἐν μὲν τῆ πατρίδι οὐ μετείχετε τῶν ἴσαν ἡμῦν. νῦν δὲ ὅπως μὲν ταῦτα ἕξετε, ἐμοὶ μελήσει σὺν τοῖς θεοῖς ἕξεστι δ' ὑμῦν, εἰ βούλοισθε, λαβόντας ὅπλα, οἶάπερ ἡμεῖς ἔχομεν, εἰς τὸν αὐτὸν ἡμῦν κίνδυνον ἐμβαίνειν, καὶ ἀν τι ἐκ τούτων καλὸν κἀγαθὸν γίγνηται, τῶν ὑμοίων ἡμῦν ἀξιοῦσθαι. Τί οἶν ἀν ἐν τούτων καλὸν κἀγαθὸν γίγνηται, τῶν ὑμοίων ἡμῦν ἀξιοῦσθαι. Τί οἶν ἀν καὶ τὰ ἀγαθὰ κτᾶταί τε καὶ σώζει, τἱ μᾶλλον ἡμῦν ἡ ὑμῦν προσήκει; κράτους τε, ὅ πάντα τὰ τῶν ἡτόνων τοῖς κρείττοσι δωρεῖτωι. τί εἰκὸς ἡμᾶς μᾶλλον ἡ καὶ ὑμᾶς τούτου δεῖσθαι ;

\* ὑποτρέφεσθαι " to cherish secretly."

Parse συγκαλέσας, έφυτε, ετράφητε, χείρονα, τόλμη, κτάται.

#### 2. Translate into Greek :---

- (1.) Who are these strangers who stand before me?
- (2.) Acquire (κεκτῆσθαι) all these things, and do what you please with them. (χρῆσθαι, "to do with ").
- (3.) Herodotus tells about small men, who were black in colour (χρῶμα), whom we call Pygmies (Πυγμαῖει).
- (4.) What is your object in going to school?
- (5.) His father fell ill  $(\nu \circ \sigma \epsilon i \nu)$ , and died in a few days.
- (6.) So long as we live we must work  $(\pi \circ \nu \epsilon \tilde{i} \nu)$ .

 Give the gender, the genit. and dat. sing., and the accusat. plur. of: δστέου, ἐλπίς, δόρυ, ἄλς, ἰδούς, κέρδος, πατρίς, θρίξ, βέλος, ταμίας.

Parse : ίλεω, ύγια, οί, αίδοι, ήδεία, πήχεσι, Δωριείς.

Decline in full : δ ψευδής κλέπτης, δ πραος βούς.

Parse:  $\tilde{\eta}_{\rho\epsilon_1}$ ,  $\epsilon_{\rho\rho\eta}\eta\eta$ ,  $\pi_1\theta\sigma\sigma$ ,  $i\pi\epsilon\sigma\chi\sigma\nu$ ,  $\phi\alpha\nu\epsilon\epsilon\nu$ ,  $\dot{\alpha}\pi\alpha\lambda\lambda\alpha\gamma\omega\sigma$ ,  $\pi\epsilon\sigma\sigma\sigma\sigma$ ,  $\epsilon\sigma\tau\alpha\tau\epsilon$ ,  $\pi\alpha\rho\epsilon\nu\tau\alpha$ ,  $\lambda\eta\sigma\epsilon\tau\epsilon$  and give the first pers. sing. fut. indic. act. and midd. (where both forms are in use), and perf. indic. act. of the verbs from which they come.

Give the principal tenses of : δέω, δρύσσω, τείνω, ὄμνυμι, θάπτω, δέχομαι, οἴγνυμι, πάσχω, μάχομαι, ἐγείρω.

Give the comparat. and superl. of : αἰσχρός, πλησίος, μακρός, μάκαρ, ὑψηλός, σωφρόνως, ταχέως, ἐγηνός, εὖ, πολύ.

#### GREEK.

HIGHER GRADE AND FIRST PAPER FOR HONOURS GRADE.

Friday, 17th June. 10 A.M. to 1 P.M.

Candidates will not receive a certificate unless they reach the necessary standard both in Grammar and in Translation.

1. Translate :---

Τοῖς δὲ νομίζουσι παιδείας τε τῆς ἀρίστης τετυχηκέναι καὶ μέγα φρονοῦσιν ἐπὶ σοφία ὡς προσεφέρετο,\* νῦν διηγήσομαι. καταμαθών γὰρ Εὐθύδημον, τὸν καλόν, γράμματα πολλὰ συνειλεγμένον ποιητῶν τε καὶ σοφιστῶν τῶν εὐδοκιμωτάτων, καὶ ἐκ τούτων ἤδη τε νομίζοντα διαφέρειν τῶν ἡλικιωτῶν ἐπὶ σοφία καὶ μεγάλας ἐλπίδας ἔχοντα πάντων διοίσειν τῷ δύνασθαι λέγειν τε καὶ πράττειν, πρῶτον μέν, αἰσθανόμενος αὐτὸν διὰ νεότητα οῦπω εἰς τὴν ἀγορὰν εἰσιόντα, εἰ δέ τι βούλοιτο διαπράξασθαι, καθίζοντα εἰς ἡνιοποιείον† τι τῶν ἐγγὺς τῆς ἀγορᾶς, εἰς τοῦτο καὶ αὐτὸς ἤει τῶν μεθ' ἑαυτοῦ τινας ἔχων. Καὶ πρῶτον μὲν πυνθανομένου τινός, πότερον Θεμιστοκλῆς διὰ συνουσίαν τινὸς τῶν σοφῶν ἡ ψύσει τοσοῦτον διήνεγκε τῶν πολιτῶν, ῶστε πρὸς ἐκεῦνον ἀποβλέπειν τὴν πόλιν, ὅπότε σπουδαίου ἀνδρὸς δεηθείη, ὁ Σωκράτης, βουλόμενος κινεῖν τὸν Εὐθύδημου, εὕηθες ἔφη εἶναι τὸ οἴεσθαι τὰς μὲν ἰλίγου ἀξίας τέχνας μὴ γίνυεσθαι σπουδαίους ἄνευ διδασκάλων ἱκανῶν, τὸ δὲ προεστάναι πόλεως, πάντων ἔργων μέγιστον ὄν, ἀπὸ ταὐτομάτου παραγίγνεσθαι τοῖς ἀνρῶποις.

\* προσφέρεσθαι, " to behave onesclf."

† ήνιοποιείον, "saddler's shop."

#### 2. Translate one of the following passages :---

(a) Τδν δὲ μέγ' ἀχθήσας προσέψη πόδας ἀκὺς ᾿Αχιλλεύς <sup>\*</sup> ὅ μοι, διογενὲς Πατρόκλεες, οἶον ἔειπες <sup>·</sup> οὖτε θεοπροπίης ἐμπάζομαι, ἥντινα οἶδα, οὖτε τί μοι πὰρ Ζηνὸς ἐπέφραδε πότνια μήτηρ <sup>·</sup> ἀλλὰ τόδ' αἰνὸν ἄχος κραδίην καὶ θυμὸν ἱκάνει, ὅππότε δὴ τὸν ὅμοῖον ἀνὴρ ἐθέλησιν ἀμέρσαι,<sup>\*</sup> καὶ γέρας ἂψ ἀφελέσθαι, ὅ τε κράτεϊ προβεβήκη <sup>•</sup> αἰνὸν ἄχος τό μοί ἐστιν, ἐπεὶ πάθον ἄλγεα θυμῷ. κούρην ἢν ἄρα μοι γέρας ἔξελον υἶες ᾿Αχαιῶν, δουρὶ δ' ἐμῷ κτεάτισσα, πόλιν εὐτείχεα πέρσας, τὴν ἂψ ἐκ χειρῶν ἕλετο κρείων ᾿Αγαμέμνων <sup>°</sup> Ατρείδης, ὡς εἴ τιν' ἀτίμητον μετανάστην.<sup>†</sup> ἀλλὰ τὰ μὲν προτετύχθαι ἐἀτομεν · οὐδ' ἄρα πως ἦν ἀσπερχὲς κεχολῶσθαι ἐνὶ φρεσίν.

\* àμέρσαι, " to despoil."

il." † μετανάστης, "a sojourner."

(b) "Επεί γε μέντοι λευκόπωλος ήμέρα πάσαν κατέσχε γαΐαν εἰψεγγής ἰδεῖν, πρῶτον μὲν ήχῆ κέλαδος Ἑλλήνων πάρα μολπηδὸν εὐψήμησεν, ὅρθιον ὅ ἅμα ἀντηλάλαξε \* νησιώτιδος πέτρας ήχώ φίβος δὲ πάσι βαρβάροις παρῆν γνώμης ἀποσφαλεῖσιν · οὐ γὰρ ὡς ψυγῆ παιῶν ἐψύμνουν σεμνὸν Ἐλληνες τότε, ἀλλ' ἐς μάχην ὅρμῶντες εὐψύχῷ θράσει. σάλπιγξ ὅ ἀῦτῆ πάντ' ἐκεῖν ἐπέψλεγεν εὐθὺς δὲ κώπης ῥοθιάδος ξυνεμβολῆ ἔπαισαν ἄλμην βρύχιον † ἐκ κελεύσματος, θοῶς δὲ πάντες ἦσαν ἐκφανεῖς ἰδεῖν.

\* ἀνταλαλάζειν, " to return a cry."

+ άλμη βρύχιος, " the salt-water in its depths."

- 3. Translate into Greek :---
  - Do not say few things in many words but many things in few words.
  - (2) We agreed with (δμολογεῖν) Socrates, who said that it was better to suffer wrong than to do wrong (ἀδικεῖν).
  - (3) Each time when dinner (δεΐπνον) was served (προκείσθαι) to Darius, a servant thrice said, "Master, remember the Atheniaus."
  - (4) The Lacedæmonians did not cease fighting with my country till they had made themselves supreme by land and sea.
  - (5) He burnt down (κατακαίων) the villages (κώμη) in order to let the others know what they should suffer if they did not obey.
- 4. Correct the Greek of :---

(1) Ού νουθετέομεν τοῦς μαθηταῦς εἰ μη δέη.

#### EXAMINATION PAPERS.

- (2) Ο βασιλεύς Περσέων Καμβύσης ταῦτά σοι δίδοασι, ἀ καὶ αὐτὸς μάλιστα ἤδεται χρᾶσθαι.
- (3) 'Αναστήσαντος τοῦ Ξενοφῶντος καὶ ἐρωτοῦντος τι κωλύῃ ἐκεῖ ἰέναι, εἶπεν ὁ Χειρίσοφος \* αὕτῃ πάροδος καλλιστέρα ἐστιν.
- (4) 'Από σοῦ ἀκούσουσιν ὅτι τῆς πολῆος ή στρατιὰ ἐξέρξεται (" will go out "), ἐπειδή τῷ στρατηγῷ οὕτω δόξει.
- - (b.) Write out in full the imperf. indie. of εἶμι and εἰμί. Account for the augment in εἶρπον, ἦγε, εἶπε, εἴθίζον, ἕσχε, εἶλε. Parse ἄρετε, ἀρεῖτε, διενεχθῆναι, διάκεισαι, πέπλεχθε, ἀνέφγον, ἐμαχέσω, χαριῶνται, ἀφῖχθε, ἐρρώσθη, ἄραρε, κιχῆναι, ἀνηλώθη, ὄναιο.

#### GREEK.

#### HONOURS.-SECOND PAPER.

#### Friday, 17th June. 2 P.M. to 5 P.M.

1. Translate :-

(1) ξυνέβη δε αὐτοῖς, ὥστε ἑῷον ἐκ τῆς Πελοποννήσου στρατον ἐξαγαγεῖν, ή τῶν Λακεδαιμονίων ἐν πῷ παρόντι κακοπραγία. Τῶν γὰρ Ἀθηναίων έγκειμένων τη Πελοπουνήσω και ούχ ήκιστα τη έκείνων γη, ήλπιζον άποστρέψαι αὐτούς μάλιστα, εἰ ἀντιπαραλυποῖεν πέμψαντες ἐπὶ τούς ξυμμάχους αύτων στρατιάν, άλλως τε και ετοίμων όντων\* τρέφειν τε και έπι αποστάσει σφάς επικαλουμένων. και άμα των Είλώτων βουλομένοις ην έπι προφάσει έκπέμψαι, μή τι πρός τα παρόντα της Πύλου έχομένης νεωτερίσωσιν. ἐπεί και τόδε ἔπραξαν, φοβούμενοι αὐτῶν τὴν νεότητα και τὸ πλήθος · (ἀεὶ γὰρ τὰ πολλὰ Λακεδαιμονίοις πρὸς τοὺς Είλωτας τῆς ψυλακής πέρι μάλιστα καθεστήκει ) προείπου αὐτῶν ὅσοι ἀξιοῦσιν ἐν τοῖς πολεμίοις γεγενήσθαι σφίσιν άριστοι. κρίνεσθαι, ώς ελευθερώσοντες, πειραν ποιούμενοι και ήγούμενοι τούτους σφίσιν ύπο φρονήματος, ούπερ και ήξίωσαν πρώτος έκαστος έλευθερούσθαι, μάλιστα αν και επιθέσθαι. και προκρίναντες ές δισχιλίους οί μεν έστεφανώσαντό τε και τα ίερα περιηλθον ώς ηλευθερωμένοι, οί δε ου πολλώ ύστερον ήφάνισαν τε αυτούς και ουδείς ήσθετο ότω τρόπω έκαστος διεφθάρη.

#### \* έτοίμων όντων se. τών ξυμμάχων.

(2) ἀκούω δ' αὐτὸν λέγειν, ὡς, ει τι ἦν ἀδίκημα τὸ μὴ παραγενέσθαι ἐν ἐκείνῷ τῷ καιρῷ, νόμος ἀν ἔκειτο περὶ αὐτοῦ διαβρήδην, ὥσπερ καὶ περὶ τῶν ἀλλων ἀδικημάτων. οὐ γὰρ ὅἶεται ὑμᾶς γνώστεσθαι ὅτι διὰ τὸ μέγεθος τοῦ ἀδικήματος οὐδεἰς περὶ αὐτοῦ ἐγράφη νόμος. τίς γὰρ ἀν ποτε ῥήτωρ ἐνεθυμήθη ἢ νομοθέτης ἤλπισεν ἀμαρτήσεσθαί τινα τῶν πολιτῶν τοσαύτην ἀμαρτίαν; οὐ γὰρ ἀν δή που, εἰ μέν τις λίποι τὴν τάξιν μὴ αὐτῆς τῆς πόλεως ἐν κινδύνῷ οὖσης ἀλλ' ἐτέρους εἰς τοῦτο καθιστάσης, ἐτέθη νόμος ὡς μεγάλα άδικοῦντος · εἰ δέ τις αὐτῆς τῆς πόλεως ἐν κινδύνφ οὖσης λίποι τὴν πόλιν αὐτήν, οὐκ ἂν ἄρα ἐτέθη. σφόδρα γ' ἂν, εἴ τις φήθη τινά τῶν πολιτῶν ἁμαρτήσεσθαί τι τοιοῦτόν ποτε.

2. For Greek prose :---

Pizarro had recourse to arts which he had formerly practised with success; and Almagro was again weak enough to suffer himself to be amused with a prospect of terminating their differences by some amicable accommodation. By varying his overtures and shifting his ground as often as it suited his purpose, sometimes seeming to yield everything which his rival could desire, and then retracting all that he had granted, Pizarro dexterously protracted the negotiation to such a length, that, though every day was precious to Almagro, several months elapsed without coming to any final agreement.

#### 3. Express in Greek :----

- (1) Utinam adsit: utinam adesset.
- (2) Quid faciam ? quid faccrem ?
- (3) Non habeo quid dicam : non habebaın quid dicerem.
- (4) Miserunt qui nuntiaret.
- (5) Nemo erat qui non putaret.
- (6) Ne aliter feceris.
- (7) Timeo ne peccaverim.
- (8) Patria est ubicunque est bene.
- (9) Studium ridicula dicendi.
- (10) Si quaercs bene, invenies.
- Narrate, briefly, the part taken by Thebes (1) in the Persian wars;
   (2) under the guidance of Epaminondas; (3) in the struggle against Philip of Macedon.

#### FRENCH.

#### LOWER GRADE.

#### Wednesday, 15th June. 10 A.M. to 12.30 P.M.

Candidates must, in all cases, answer Questions 1, 2, 3, 4 (Section I.), and should try one question from each of the other sections.

#### SECTION I.

1. Translate into English :----

(a) Le vieux matelot<sup>1</sup> ressemble au vieux laboureur.<sup>2</sup> Leurs moissons<sup>3</sup> sont différentes, il est vrai: le matelot a mené une vic errante, le laboureur n'a jammais quitté son champ; mais ils connaissent également les étoiles et prédisent l'avenir en ereusant leurs sillons.<sup>4</sup> Ils se retirent le soir, celui-ci dans sa cabine, celui-là dans sa chaumière : frêles demeures, où l'ouragan 5 qui les ébranle n'agite point des consciences tranquilles.

#### CHÂTEAUBRIAND.

<sup>1</sup>Seaman; <sup>2</sup>husbandman; <sup>3</sup>harvests; <sup>4</sup>furrows; <sup>5</sup>hurricane.

(b) The last letter and end of Roucher.

"Vous voulez savoir, ma bonne amie, quelle est la situation de mon âme après neuf mois de captivité. Eh bien ! toujours à peu près la même, sans cspérance et sans désespoir. 'La patience,' dit un proverbe anglais, 'est une plante qui ne croît pas dans le jardin de tout le monde.' Pour moi, je l'ai transplantée dans le mien, et c'est à force de soins et de culture que je parviens à l'y conserver, si non dans une forte et abondante végétation, du moins dans un état qui la laisse dans son entier." L'heure suprême approchait. Il fit faire par un de ses compagnons son portrait destiné à sa femme, à scs enfants et à ses amis, puis il y traça les vers suivants :-

Ne vous étonnez pas, objets sacrés et doux, Si quelque air de tristesse obscurcit mon visage. Quand un savant crayon dessinait cette image, On dressait l'échafaud et je pensais à vous.

DE BROC.

- 2. Distinguish between—(a) un vieux matelot and un ancien matelot; (b) mener, amener, and emmener; (c) quitter and laisser; (d) connaître and savoir ; and give the femininc and plural of celui.
- 3. Give the Imperative, in full, and two participles of savoir, croit, mener, se retirent, fit.

#### 4. Translate into French :---

A traveller, on his way to Italy, found himself in a village, at the foot of the Alps; where the inhabitants had cach a large excrescence depending from the chin,\* which they looked upon as the greatest ornament of the human visage. It was Sunday. A country church was at hand, and our traveller was willing to perform the duties of the day. Upou his first appearance at the church door, the eyes of all were naturally fixed upon the stranger; but what was their amazement, when they saw that he actually wanted that emblem of beauty, a pursed chin !† There was a general, though suppressed laughter; even the pastor, equally remarkable for his gravity and chin, could hardly refrain joining in the good humour. Our traveller could no longer patiently continue to remain silent. "Good folks," said he, "I perceive that I am the unfortunate cause of all this good " humour. It is true, I may have faults in abundance; but I " shall never be induced to reckon my want of a swelled face " among the number."

O. GOLDSMITH.

\* Une loupe au menton. † Un menton loupeux.

#### SECTION II.

5. With what classes of verbs are the auxiliaries avoir and être, respectively, used in French? Give an example illustrating each case, and distinguish between the different meanings of the neuter verb convenir, according as its auxiliary is avoir or être.

- 6. How do you distinguish in French (a) I write, from I am writing? (b) I had finished, from I had just finished? (c) it is done, from it is being done?
- State the rules for the agreement (a) of French compound adjectives, such as *light-grey*, *dark-brown*; (b) of substantives used adjectively, *e.q. orange*, *cherry* (colour).
- 8. Translate into French :---
  - (a) The twenty-first of February, eighteen hundred and sixtynine.
  - (b) He will give it to her to-day.
  - (c) Why did she not give it him?
  - (d) Have you any sisters? Yes, I have one.
  - (e) I have seen your friends, have you seen mine?
- 9. State the rule as to the possessive adjective or pronoun which follows *chacun*, and translate into French :----
  - (a) They gave money to the poor, each according to his means.(b) They had each their dog.

#### SECTION III.

#### 10. Translate :---

(a) The day before yesterday, this day week, this day fortnight, a week ago, Christmas Day, Easter Sunday, New Year's Day;
(b) Her Most Graeious Majesty the Queen of the United Kingdom of Great Britain and Ireland, Empress of India; (c) somewhere, elsewhere, no matter where, everywhere, nowhere, wherever you like.

#### 11. Translate :---

(a) My godmother is a near relative of ours; (b) the year one thousand eight hundred and ninety-two being a leap year, has three hundred and sixty-six days, February having twenty-nine days. There will be only two other leap years in the nineteenth eentury, in one thousand eight hundred and ninety six, and in one thousand nine hundred; (c) Wednesday, June the fifteenth, from 10 A.M. to 12.30 P.M. (No figures or abbreviations allowed in this phrase in French.)

#### SECTION IV.

- 12. Give the name of a great French writer for the 16th, 17th, 18th, and 19th centuries, respectively, with the title and a short description of one of the principal works of each.
- 13. Name the author of each of the following works, and give their approximate dates and a short description of their nature :--Les Provinciales, Télémaque, La Henriade, Hernani.
- Or, 14. Translate the following "commercial terms" :--The wool trade, the eorn market, the stock exchange, a sleeping partner, a eommission agent, to wind up an account, a cash payment, a bill of lading, an invoice, the day-book, the ledger, the eash-book, the head of the firm.

15. Write a short business letter, in French, ordering some goods, giving directious for their despatch and stating mode of payment.

#### FRENCH.

#### HIGHER GRADE AND FIRST PAPER FOR HONOURS GRADE.

#### Weduesday, 15th June. 10 A.M. to 1 P.M.

Candidates must, in all cases, answer the whole of Questions 1 and 2 Section I.; and should try two questions from each of Sections II., III., and IV. Candidates answering questions from Section V. need not attempt Sections III. and IV.

#### SECTION I.

[The *Misanthrope* blames Célimène's flatterers for applauding her satire on their friends.]

#### 1. Translate :---

 (a) ALCESTE.—Allons, ferme, poussez, mes bons amis de cour ;
 Vous n'en épargnez point et chacun a son tour : Cependant aucun d'eux à vos yeux ne se montre, Qu'on ne vous voie en hâte aller à sa rencontre, Lui présenter la main, et d'un baiser flatteur Appuyer les serments d'être son serviteur.

CLITANDRE.—Pourquoi s'en prendre à nous ? Si ce qu'on dit vous blesse,

Il faut que le reproche à Madame s'adresse.

ALCESTE.—Non, morbleu ! c'est à vous ; et vos ris complaisants Tirent de son esprit tous ees traits médisants. Son humeur satirique est sans ccsse nourrie Par le eoupable encens de votre flatterie; Et son eœur à railler trouverait moins d'appas, S'il avait observé qu'on ne l'applaudit pas. MOLLÈRE :—Le Misanthrope.

#### (b) La baie des Trépassés (Bretagne).

Ce lieu abaudonné des humains, où la solitude de la terre se rencontre avec la solitude de l'Océan, est, selon d'antiques légendes, le rendez-vous des âmes en peine. "Le peuple de ces eôtes" dit le poète Claudien, entend les gémissements des ombres volant avec un léger bruit. "Il voit passer les pâles fantômes des morts." Selon Procope, les pêcheurs entendent heurter à leur porte à minuit. Ils se lèvent et trouvent sur la plage des barques vides qui se chargent d'hôtes invisibles. Poussés par une force inconnue, les pêcheurs prennent place au gouvernail. Le vent les emporte avec une rapidité étourdissante. Lorsqu'ils touchent à l'île de Bretague, ils ne voient toujours personne. Mais ils entendent des voix qui appellent les passagers par leurs noms. Les barques s'allègent tout-à-coup; les âmes sont parties. Selon la tradition chrétienne, encore vivante dans le peuple, la baie des Trépassés est le rendez-vous des âmes des naufragés. Le jour des Morts, on les voit courir sur la lame comme une écume blanchâtre et fugitive, et toute la baie se remplit de voix,

#### EXAMINATION PAPERS.

d'appels, de chuehotements. Une touehante imagination populaire fait se rencontrer iei les âmes de ceux qui se sont suicidés par amour et perdus dans la mort. Une fois par au, ils ont le droit de se revoir. Le flux les réunit, le reflux les sépare, et ils s'arrachent l'un à l'autre avec de longs gémissements.

#### SCHURÉ:-Les Légendes de la Bretagne.

#### 2. Translate into French :---

[Meeting of King Louis XI. with the Duke of Burgundy.]

One hardly knows whether to term it<sup>1</sup> a privilege or a penalty annexed to the quality of princes, that, in their intercourse<sup>2</sup> with each other, they are required, by the respect which is due to their own rank and dignity, to regulate their feelings and expressions by a severe etiquette, which preeludes all violent and avowed display of passion,<sup>3</sup> and which, but that the whole world are aware that this assumed complaisance is a matter of ceremony, might justly pass for profound dissimulation. The greeting between the two potentates, was, of eourse, as full of affected kindness and compliment as it was totally devoid of sincerity. Perhaps the most accurate illustration,<sup>4</sup> were it not unworthy two such high potentates, would be, to suppose the king in the situation of a stranger, perfectly acquainted with the habits and dispositions of the eanine race, who, for some purpose of his own, is desirous to make friends with a large and surly mastiff,<sup>5</sup> who holds him in suspicion, and is disposed to fly upon him on the first symptoms either of diffidence or of umbrage. The mastiff growls internally, erects his bristles,<sup>6</sup> shows his teeth, yet takes shame to fly upon<sup>7</sup> the intruder, who seems, at the same time, so kind and so confiding, and therefore the animal endures advances which are far from pacifying him, watching at the same time the slightest opportunity which may justify him in his own eyes for seizing his friend by the throat.

Sir W. SCOTT.

<sup>1</sup>To term it = regarder comme; <sup>2</sup> intercourse = rapports; <sup>3</sup> avowed display of passion = marque d'émotion ou de colère; <sup>4</sup> illustration = comparaison; <sup>5</sup> mastiff = mâtin; <sup>6</sup> erects his bristles = hérisse les poils; <sup>7</sup> takes shame to fly upon = aurait honte de sauter sur.

#### SECTION II.

- 3. State in what particulars the use of the passive voice in French verbs differs from English usage, and translate:—(a) We have been told that this chair must not be removed.—(b) What eannot be eured must be endured. (Give the *proverbial* equivalent of the latter phrase if you ean.)
- 4. State in what particulars the use of the reflexive voice in French verbs differs from English usage, and translate:—(a) They fought bravely, but in the darkness they did not perceive the danger of their position. (b) Did you not remember the order to keep in small groups, and never to erowd all together when walking in the garden?
- 5. State in what particulars the use of the active voice in French verbs differs from English usage, and translate :—(a) You will please your mother if you listen to your father and obey him, whom you will succeed one day. (b) Never trust a man who slanders another.

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- 6. Give the Indicative present in full, and the third person singular of the imperfect Subjunctive of : prédire, convaincre, faillir, surseoir, épousseter, s'ennuyer.
- 7. When are à le, de le, à les, de les, used in French? When arc au, du, aux, des, used? Form short French sentences, illustrating your answers.
- 8. When are the objective pronouns *me*, *te*, *lui* (masculine and feminine), used in French? When are *moi*, *toi*, *lui* (masculine and feminine), used? When are à moi, à toi, à lui, à elle, used? Form short sentences, illustrating your answers.

#### SECTION III.

## Y PHILOLOGY.

- 9. What is meant by Low Latin (otherwise called *lingua Latina rustica*)? Give proofs that the French language, like the other Romance languages, is developed from Low Latin and not from classical Latin, and state when the classical Latin element was added to the old French language.
- 10. Distinguish between (a) nouns derived from verbs, (b) verbs derived from nouns, in the following words, and account for this double formation:—achat, acheter; accueil, accueillir; manœuvre, manœuvre; voiture, voiture.
- 11. Write, in modern French:—Quelz homs qu'il soit ne a esté, il est chi venus sus mon sauf conduit.—*Froissard*. Si preiet Deu que pareis li dunget.—*Chanson de Roland*.
- 12. How do you account for the fact that Latin abstract nouns in or have become feminine in French? Are there any exceptions?

#### SECTION IV.

#### LITERATURE.

- 13. State what you know of the French *Pleiade*, and what traces of their influence remain in modern French literature.
- 14. Comparc one of the principal plays of Molière with a modern French comedy, and mark their principal typical differences.
- 15. What are the distinguishing features of Voltaire's and J. J. Rousseau's prose writings, and what influence have those works respectively exercised on modern French writers?
- 16. Give the origin of the following quotations, and translate them into English:----
  - (a) A vaincre sans péril on triomphe sans gloire.
  - (b) Je me hâte de rirc de tout de peur d'être obligé d'en pleurer.
  - (c) L'ami du genre humain n'est point du tout mon fait.
  - (d) Qui vit sans folie n'est pas si sage qu'il croit.
  - (c) Rien n'est si dangereux qu'un ignorant ami, Mieux vaudrait un sage ennemi.

#### SECTION V.

#### COMMERCIAL FRENCH.

Candidates having answered Questions from Sections III. and IV., need not answer this Section. Satisfactory answers to the following three Questions will be accepted *as equivalent* to Sections III. and IV.

- 17. Explain the meaning of the following expressions:—"ehange on Paris, 25.22; on Lyons, 99<sup>3</sup>/<sub>4</sub>;" "3 per cent. closed yesterday at 83.32<sup>1</sup>/<sub>2</sub>, and opened to-day at 83.45." "The home markets;" "foreign markets;" "free trade;" "eustoms union;" "protectionist tariffs;" "the most favoured nation elause in commercial treaties."
- 18. Translate the following letter, and convert the French amounts into English money at par :—

"Gentlemen,---We beg to acknowledge receipt of your favours of the 2nd and 5th inst., eovering :----

Fes. 658:40 at sight.

" 1233·20 due 20th inst.

,, 1658.40 for collection.

3550

Together with 250*l*. on London at eight days' sight, the sale of which will suffer no delay.

"You will find herewith your remittance of Fes 4,760 at fifteen days' sight on Paris, which we have been unable to get accepted on account of its not being endorsed. Be good enough to return it in course of post, that its maturity may not be delayed.—Yours faithfully, B. B."

19. Translate into English the following letter, and answer it in French, giving an order, stating mode of despatch and payment, &c. :--

"Nous avons l'honneur de vous informer qu'une grande vente de bois de teinture aura lieu aux enchères aux doeks le 2 du mois prochain. Ce sera la dernière vente publique de cette nature, cette année. Vous savez que le marché étant encombré les prix actuels des bois de Campèche et de fustet sont bien au dessous de la moyenne, ce qui pourrait vous décider à augmenter votre stock pour la saison, car il est très probable qu'une hausse ne tardera pas à se produire. Nous serons heureux d'exécuter soignéusement les ordres dont il vous plaira de nous favoriser, en nous fixant vos limites de prix et de qualité.

"Agréez, Monsieur,

"Nos sincères salutations."

c 2

#### FRENCH.

HONOURS .- SECOND PAPER.

Wednesday, 15th June. 2 P.M. to 5 P.M.

Candidates must, in all cases, answer Question 1, and part of Question 2.

#### SECTION I.

1. Translate :---

(a) The young Marius represented an ancient family whose estate had eome down to him much curtailed through the extravagance of a certain Marcellus, two generations before, a favourite in his day of the fashionable world at Rome, where he had at least spent his substance with a correctness of taste, which Marius might seem to have inherited from him: as he was believed also to resemble him in a singularly pleasant smile, consistent, however, in the younger face, with some degree of sombre expression when the mind within was but slightly moved.

As the means of life decreased, the farm had crept nearer and nearer to the dwelling-house, about which there was therefore a trace of work-day uegligence or homeliness, not without its picturesque charm for some, for the young master himself among them. But it was something more than an elegant diversion, something more of a serious business, with the household of Marius, and his actual interest in the cultivation of the earth and the care of flocks had brought him, at least, intimately near to those elementary conditions of life, a reverence for which the great Roman poet, as he has shown by his own half-inystic preoccupation with them, held to be the ground of primitive Roman religion, as of primitive morals.

W. PATER.

- (b) He had been at death's door in London.
- (c) They both enlisted, and passed five years with the colours.
- (d) Birds of a feather flock together.
- (e) It is difficult to find time to keep abreast of all that concerns oue's country.
- (f) She longed to make it up with him.
- (g) He cannot have earned enough to pay his way.
- (h) Do not steal a march upon him : let him know in time.

#### SECTION II.

#### 2. Translate into English :---

(a) Je retumbe volontiers sur ce discours de l'ineptie de notre institution : elle a eu pour sa fin de nous faire, non bons et sages mais sçavants ; elle y est arrivée : elle ne nous a pas appris de suyvre et embrasser la vertn et la prudence, mais elle nous en a imprimé la derivation et l'etymologie; nous sçavons decliner vertu, si nous ne sçavons l'aymer; si uous ne sçavons que c'est que prudence par effect et par experience, nous le sçavons par jargon et par cœur.

#### MONTAIGNE.

(b) D'où vient qu'un boiteux ue nous irrite pas, et un esprit boiteux nous irrite? A cause qu'un boiteux reconnait que nous allons droit, et qu'un esprit boiteux dit que c'est nous qui boitons, sans cela nous en aurions pitié et non colère.

PASCAL.

(c) Je puis choisir, dit-on, ou beaucoup d'ans sans gloire, Ou peu de jours suivis d'une longue mémoire. Mais puisqu'il faut enfin que j'arrive au tombeau, Voudrais-je de la terre inutile fardeau,

Trop avare d'un sang reçu d'une déesse, Attendre chez mon père une obsenre vieillesse ? Et toujours de la gloire évitant le sentier Ne laisser aueun nom et mourir tout entier ? Ah ! ne nous formons point ces indignes obstacles ; L'honneur parie, il suffit : ce sont là nos oracles. Les dieux sont de nos jours les maîtres souverains : Mais, Seigneur, notre gloire est dans nos propres mains. RACINE.

(d) Je suis riche des biens dont je sais me passer.

### SECTION III.

#### PHILOLOGY.

### (Not more than three questions to be answered in this section.)

- 3. Trace historically, and account for (a) the use of the femininc in the phrases: Il vient de l'échapper BELLE and vous me la baillez BONNE; (b) the double form mille, mil; (c) the original meaning, and the different modern acceptations of the words bureau and chapelet.
- 4. Explain the derivation and meaning of :--glas, budget, léger, håbler, parapet, loge, alouette, vermoulu, aujourd'hui.
- 5. Name and describe any of the most ancient French records in existence. If you can, quote from any of them; or, express in modern French :---

"Niule cose non la pouret omque pleier

La polle sempre non amast lo Deo menestier."

Cantique de S<sup>te</sup> Eulalie.

- 6. "La langue française au XII<sup>e</sup> siècle, entièrement dégagée du latin, a son existence propre, ses règles et son génie." Prove this statement, and state what remains in modern French of the characteristics of the language in the XIIth century.
- State in what particulars the scheme of declension and inflection of nouns in use in old French differed (1) from that in use in Latin (2) from that in modern French. Illustrate by the words murs, pedre, home, terres, main.
- 8. How did the tonic accent influence the formation of French words compounded from two Latin words? Illustrate your answer by reference to *trèfle* (noun), *couds* (verb), *maussade* (adjective).

#### SECTION IV.

#### LITERATURE.

### (Not more than three questions to be answered in this scetion.)

- 9. "Malherbe est de tous les écrivains français celui qui a exercé sur notre langue l'action la plus profonde. A partir de lui et sous son influence le français entre dans une période nouvelle qui n'est pas encore terminée." Prove this statement.
- 10 State what you know of any two of the following authors, and name their principal works :--V. Cousin, F. de Lamennais, Châteaubriand, Mérimée, A. Daudet, F. Coppée, La Bruyère, Fénelon.

- 11. Describe, briefly, the chicf characteristics of one of the following works, and give its approximate date and its author's name:— Les feuilles d'Autonne, Jocelyn, Les Moines d'Occident, Voyage autour de ma Chambre, Paul et Virginie, Le Mariage de Figaro. L'Esprit des Lois, Discours sur l'Histoire Universelle.
- 12. Quote, in French, and comment upon any passage from either one of La Fontaine's fables, and one of Molière's plays; or, from one of Racine's tragedies, and one of La Rochefoucauld's Maximes.
- 13. State what you know of the principal metres used in French poetry, and add examples of each.

14. Sketch briefly the history and functions of the French Academy.

#### SECTION V.

#### COMPOSITION.

15. Develop, in French, one of the following thoughts. (The Essay is not to contain less than 20 nor more than 40 lines) :---

"Best men are moulded out of faults."-SHAKESPEARE.

"I am a part of all that I have met."-TENNYSON.

"Peace hath her victories, no less renowned than war."-

"The world agrees that he writes well who writes with ease." --PRIOR.

#### ITALIAN.

#### HIGHER GRADE.

#### Monday, 20th June, 2 to 5 P.M.

1. Translate into Itálian :---

Few generals have ever been more loved by their soldiers than the great Viscount de Turenne. Troops are always proud of a leader who wins victories, but Turenne was far more loved for his generous kindness than for his successes. If he gained a battle he always wrote in his despatches, "we succeeded," so as to give the credit to the rest of the army; but if he were defeated, he wrote, "I lost," so as to take all blame upon himself. He always shared as much as possible in every hardship suffered by his men, and they trusted him entirely. Once in the depth of winter, when some of the younger soldiers complained of the difficulties of the march, the elder ones answered, "Depend upon it, Turenne is more concerned than we are. At this moment he is thinking how to deliver us. He watches for us while we sleep. He is our father. It is plain that you are but young."

2. Translate into English :---

#### (A.)

Figliuol mio, dentro da cotesti sassi, Cominciò poi a *dir*, son tre cerchictti Di grado in grado, come quei che lassi. Tutti son pien di spirti maledetti : Ma perchè poi ti *basti* pur la vista, Intendi come e perchè son costretti. D' ogni malizia ch' odio in eielo aequista, Ingiuria è il fine, ed ogni fin eotale O eon forza o con frode altrui contrista. Ma perchè frode è dell'*uom* proprio male, Più *spiace* a Dio; e però stan di sutto Gli frodolenti, e più dolor *gli* assale.

### (B.)

Mitridanes, levatosi, n' andò al bosehetto, e di lontano vide Natan tutto soletto andar passeggiando: e diliberato, avanti ehe l'assalisse, di volerlo vedere e d'udirlo parlare, corse verso lui e disse: Vegliardo, tu sei morto; al quale niuna altra cosa rispose Natan, se non : Dunque l' ho io meritato. Mitridanes, udita la voee, e nel viso guardatolo, riconobbe lui esser colui ehe benignamente l'avea ricevuto, e fedelmente consigliato; per ehe di presente gli eadde il furore, e la sua ira si convertì in vergogna. Laonde egli, gittata via la spaca, la qual già per ferirlo avea tirata fuori, da eaval dismontato, piagnendo eorse a' piè di Natan e disse : Manifestamente couoseo la vostra liberalità, riguardando con quanta eautela venuto siate per darmi il vostro spirito : ma Iddio, più al mio dover sollecito ehe io stesso, a quel punto che maggior bisogno è stato gli occhi m' ha aperto dello 'ntelletto, li quali misera invidia m' avea serrati. E per eiò quanto voi più pronto stato siete a compiacermi, tanto più mi cognosco debito alla penitenzia del mio errore : prendete adunque di me quella vendetta ehe eonvenevole estimate al mio peccato.

- 3. Parse (if verbs, eonjugate) and account for the construction of the words printed in *italics*, in passages (A) and (B).
- 4. Give the etymology of the following words and account for the changes they have undergone :--esempio, porre, giuoco, ridurre, chiudere, giorno, sdegno, giuso, Luglio, Iddio.
- 5. Translate into Italian :
  - (1) The one said yes, the other said no.
  - (2) Do not speak to him of it.
  - (3) He would not know what to do with it.
  - (4) My eldest brother is richer than you think.
  - (5) He is said to be the richest man iu our eity.
- 6. Write a short essay on "The influence of Italy on English literature."

## GERMAN.

### LOWER GRADE.

### Tuesday, 21st June. 10 A.M. to 12.30 P.M.

To secure full marks, answer the whole of Sections I. and II. and four questions of Section III.

Additional marks will be given for fair writing in the German character.

### SECTION I.

1. Translate into English :---

Der Ralif Sakam ber Zweite war ein weifer und gerechter Serrscher ; aber er liebte auch Glanz und Pracht und wümschte, daß es nichts Schöneres gabe als fein Schloß und feine Garten in Cordova. Darum taufte er alles Land, das an feinen Part ftieß, und zahlte einem jeden fo viel als er verlangte. Rm eine arme Witme wollte ihr Sänschen nicht verkaufen. Da wurde der Kalif zornig und ließ es ihr mit Gewalt wegnehmen. Die Frau lief weinend zum Rabi - jo nennen Die Araber ihre Richter -- und flagte ihm, mas ihr geschehen war. Er beruhigte fie und fagte : "Bleibe eine Weile bier ; ich will feben, ob ich bir helfen fann." Was that nun ber fluge Richter ? Er nahm einen leeren Sach, fetste fich auf feinen Gfel und ritt nach bem haufe ber Witwe. Hier fand er ben Kalif mit feinen Leuten, die schon dabei waren, die Hütte niederzureißen. Der Kalif, ber den Radi als einen guten Mann kannte und ehrte, fragte, was er hier wolle. Diefer aber warf fich ihm zu Füßen und bat : "Erlaube mir, o Herr, daß ich biefen Sact mit Erbe fülle !" Berwundert gewährte ber Fürft bie Bitte. 2118 ber Sact voll war, bat ber Rabi wiederum : "Sei guädig, o herr, und bilf mir ben Sact auf den Efel laden !" hakam fand biefen Wunfch noch fonderbarer, that aber boch, was ber Rabi verlangte. Er tounte aber den Sact nicht heben und fagte : "Die Burde ift zu fchwer für mich, Rabi." Da rief ber Richter : "Serr, bu findeft diefe Erbe zu fchwer, und es ift boch nur eine handvoll von ber, die du einer armen Witwe genommen haft : wie willft bu jene fchwere Laft tragen, wenn ber große Richter der Welt fle dir einft auf die Schultern legt ?" Da erschraf ber Kalif, lobte ben mutigen Richter und ließ der Witwe auf berfelben Stelle ein nenes haus bauen.

### 3. Translate into German (using "thou" for "you") :---

John was playing with his friend William. He looked at (nach) his watch, and said, "It is just twelve o'clock, I must go (omit) away. I am to dine (say, eat) at my uncle's; but I shall be here again at two." He ran as fast as he could. They were already waiting, and the dinner was on the table. When they had dined, the aunt said, "You must stay, John. Our carriage will soon be here. We drive to Woodham to see the fair (Sabrmarft, m.). I believe you have never seen it. The children will be glad, if you come with us."—"But my friend William expects me this afternoon: we wanted to go for a walk together," replied the boy.—"I will send my maid to him; here

is paper and ink: tell him that you cannot eome." When he had written the letter, the carriage was before the door. It was a beautiful day. They saw many pretty things at (say, on) the fair, and had great fun. But poor (say, the poor) William waited for (auf) his friend till the evening; for the maid was reading a book, and forgot the letter. Her mistress was very angry when she heard this. But John was not sorry that he had gone with them.

#### SECTION II.

- 3. Give the German words—in the nominative and genitive singular, and nominative plural, with the definite article—for any ten of the following:—way, glass, sister, lady, fruit, hill, battle, pain, nut, basket, room, hole, war, ox, donkey.
- 4. Decline, singular and plural, the German for-my child, that dog, a good man.
- Compare, and give the meanings of, the adjectives—alt, jung, ftol<sub>3</sub>, groß, furg, hoch, wahr, nahe, bnut, viel.
- 6. Give the German words for 6, 7, 16, 17, 65, 78, 112, 334, 1892; the 3rd, 8th, 46th, 101st.
- 7. Write out the present and imperfect of fehen and thun; and the present indicative passive of horen.
- 8. Give the 3rd singular and 2nd plural present, imperfeet, and perfeet indicativo and imperfect subjunctive of - fein, werden, gehen, ftehen, finden, wilfen, fennen, fönnen, fchreiben, verlaffen.

### SECTION III.

- 9. Account for the gender of Mädden, Anäblein, Blämden, Böglein ; and give the simple nouns (with the definite article) from which they are derived.
- 10. Write out the prepositions which govern the dative ease.
- 11. Give the German of the conjuctions---if, when, though, in order that, after, before, while.
- 12. Give the 2nd person singular imperative of three verbs which do not take ze.
- 13. Give the titles of four German plays, and the names of their authors.
- 14. Mention two poems by each of the following writers :- Goethe, Schiller, Heine, Uhland.

### GERMAN.

#### HIGHER GRADE AND FIRST PAPER FOR HONOURS GRADE.

#### Tuesday, 21st June. 10 A.M. to 1 P.M.

### To secure full marks, translate the passages from, and into, German; and answer eight of the remaining questions, not less than four of which must be chosen from Section II.

Additional marks will be given for fair writing in the German character.

SECTION I.

1. Translate into English :---

(a) Ein freundlicher Empfang und eine gut besetzte Tafel erwartelen ben Herzog von Alba auf bem Schloffe. Noch hatte man sich kaum niedergesetzt, als ein Bote die Gräfin aus dem Saal rief. Es wurde ihr gemeldet, daß in einigen Dörfern die spanischen Soldaten Gewalt gebraucht und ben Bauern bas Bieh weggetrieben hätten. Ratharina war eine Mutter ihres Bolfes; was bem ärniften ihrer Unterthanen geschah, war ihr felbst zugestoßen. Aufs äußerfte über biefe Wortbrüchigfeit entrüftet, befahl fie ihrer Dienerschaft, fich in aller Geschwindigkeit und Stille zu bewaffnen ; fie felbft begab fich wieder nach bem Saale, wo bie Fürften noch bei Tifche fagen. Sier flagte fie ihnen in ergreifenden Worten, mas ihr eben gemelbet worben, und wie schlecht man bas gegebene Kaiferwort gehalten. Man erwiderte ihr mit Lachen, dies fei nun einmal Kriegsgebrauch, und bei einem Durchmarich von Soldaten könnten bergleichen fleine Unfälle nicht verhutet werben. "Das wollen wir boch feben," antwortete fie erregt ; "meinen armen Unterthanen muß bas Ihrige wieder werben, ober, bei Gott" - indent fie brobend ihre Stimme erhob - "Fürftenblut für Ochsenblut !" Mit biefer Erklärung verließ fie bas Bimmer, bas in wenigen Augenblicken von Bewaffneten gefüllt war, bie fich, bas Schwert in ber hand, hinter die Stühle der Fürften pflauzten und bas Frühftnick bebienten. Beim Eintritt diefer taupfluftigen Schar veränderte Serzog Alba bie Farbe : ftumm und verlegen fab man einander an. Seinrich von Braunfchweig faßte fich zuerft und brach in ein lautes Gelächter aus. Er bat bie mutige Gräfin, fich ruhig zu verhalten, bis er mit bem herzog geredet habe; und bald darauf erließ berfelbe einen Befehl an die Armee, das geraubte Bieh den Eigentümern auf der Stelle wieder auszuliefern.

After Schiller.

(b) Mitten in des Weltmeers wilden Wellen Scheiterte das Schiff. Die Edlen retten Sich im Kahne. "Bo ift Don Aloufo?" Riefen sie. Er war des Schiffes Priefter. "Fabret wohl, ihr Freunde meines Lebens, Bruder, Oheim!" sprach er von dem Borde, "Meine Pflicht beginnt, die eure endet." Und er eilt hinunter in des Schiffes Rammern, feine Sterbenden zu tröften, Höret ihre Sünden, ihre Buße, Ihr Gebet, und wehret der Verzweiflung, Labet sie und geht mit ihnen unter.

Serder.

#### 2. Translate into German :---

A dissipated young nobleman found, at his father's death, that he was not so rich as he had thought, and accused John, the faithful servant of the family, of having robbed him. Though the old man protested his innocence, he was turned off, and went to live with his son, a poor labourer, in the village close by. Before five years had passed away, the young man was deeply in debt. One day, as he was feasting with some friends, John's grandson came to the castle, and asked him to come to his grandfather who was very ill and wished to see him. "Tell the old fool, if he wants to beg, he must send to somebody else," was The boy went away, but returned soon after, and said, the reply. "Please, Sir, my grandfather knows where your father has hid his moncy; but he was not to tell you before your twenty-fifth birthday." The young lord rushed off as fast as he could, but when he came to the dying man, he had already lost his speech, and could only make signs which nobody understood. Though the whole castle was afterwards ransacked (rurchfu'chen), the money was never found during the lifetime of the foolish man.

#### SECTION II.

- 3. Give the German words—in the nominative and genitive singular, and nominative plural, with the definite article—for any ten of these:—physician, merchant, statesman, misfortune, victory, language, vice, quality, government, earl, gun, request, prayer, quarrel, law.
- 4. Disinguish between—der Bund, das Bund; die Thore, die Aboren; die Bauer, die Bauern; die Absicht, die Ansicht; die Reisen, die Reiser; bei Zeiten, zu Zeiten; unterscht, untergesetzt.
- 5. When does the German adjective remain unchangeable? Give examples,
- 6. Give the nominative and dative singular of a masculine, feminine, and neuter noun with an adjective -(a) without article; (b) with the definite article; (c) with the indefinite article.
- 7. Form sentences with five different adjectives which govern the genitive.
- 8. Give the 2nd singular and plural present, imperfect, and perfect indicative, and (the same persons of) imperative of-anschen, mißbrauchen, ausziehen, sich enthalten, teilnehmen, sich ergeben, mißberstehen, sich verschen, burchlaufen burchlausfen.
- 9. Give examples of five prepositions governing the genitive.

### 10. Translate idiomatically :--

- (a) Mary's hair is darker than her sister's.
  (b) He insists on doing it.
- (c) He insists on my doing it.
- (d) You ought to have said it sooner.
- (e) They are said to be poor.

#### SECTION III.-PHILOLOGY (AND WORD-FORMATION).

- 11. Form abstract nouns from-jung, alt, hoch, fchnell, ftolz, neu, beiß, blind, feft, frei, geschwind, reich.
- 12. Explain the force of the prefix Ge- in Gebirge and in Gerede, and give four other words of each kind.
- 13. Give the derivation and meaning of any ten of these :- Gift, Gebot, Geschütz, Geschäft, Bucht, Schluffel, Flucht, Geschöpf, Sieb, Glut, Saft Drang, Griff, fundig, besonnen.
- 14. Give three German adjectives in lich with etymologically corresponding English words; and three others in lich, where the corresponding English word shows a different affix.
- 15. Form adjectives from any ten of these :- Rind, Wind, Ubend, Ingend, Eifen, Gold, Silber, Winter, Sunger, Bunder, bald, ftets, beilen, grauen, effen.
- 16. Give the German, or English, etymological equivalents of any ten of each of the following two sets (adding, in each case, the exact meaning of the German word) :-
  - (a) watch, even, deed, to fight, seat, loose, reek, to lead, hollow, rod, sly, ear (of corn), on, up, beam.
  - (b) weich, Ruecht, Rohl, gemein, Rinn, beifer, flimmen, Ecte, ob, glüben, Rnabe, ranben, offen, Bohne, gewohnt.

SECTION IV .- LATERATURE AND COMMERCIAL CORRESPONDENCE.

- 17. Give some account of one of Leffing's plays.
- 18. Give the titles, and some account, of three of Schiller's ballads.
- 19. Specify three epics, or larger narrative poems, of the present century.
- 20. What were the principal departments of Goethe's literary activity? Give an example of each class.
- 21. Give short accounts of two poets born subsequently to Schiller.
- 22. Assign any eight of the following titles to the respective authors, characterizing them in a single word (drama, epic, etc.) :- Braut von Meifina, der Erlfönig, der Taucher, Torquato Taffo, der siebzigste Geburtstag, Liebesfrühling, die Bürgschaft, die Journalisten, die Jungfrau von Drleans, ber Sänger, Wallensteins Lager, bas Schwertlieb.
- 23. Write a short letter, introducing a young friend, or clerk, to the head of a house with which the writer maintains commercial relations.

- 24. Give the German (with the definite article in case of nouns) forhundredweight, guarantee, partner, signature, insurance company, commercial house, endorsement, price-current, balance in favour, to forward.
- 25. Give the English for-Tratte Connossent, Rimeffe, Viert, Factura, Orhoft, Speditionsgeschäft, der Bezogene, gegen Salvo, einen Wechsel girieren. Add the definite article to the German noans.

## GERMAN.

#### HONOURS .- SECOND PAPER.

#### Tuesday, 21st June. 2 P.M. to 5 P.M.

To secure full marks, translate the passages from, and into German; and answer eight of the remaining questions, not less than five of which must be taken from Section II.

Additional marks will be given for fair writing in the German character.

#### SECTION I.

1. Translate into English :--

(a) Glücklich der Fuß, welcher über weite Flächen des eigenen Grundes schreitet ; glücklich das Haupt, welches die Kraft der grünenden Natur einem verständigen Willen zu unterwerfen weiß! Alles, was den Menschen start, gesund und gut macht, das ist dem Landwirt zu teil geworden. Sein Leben ist ein unaufhörlicher Kaupf, ein endloser Sieg. Ihm stählt die reine Gottesluft die Muskeln des Leibes, ihm zwingt die uralte Ordnung der Natur auch die Gedanken zu geordnetem Lauf. Er ist der Priester, welcher Beständigkeit, Incht und Sitte, die ersten Tugenden eines Bolkes, zu hüten hat.

### G. Freytag.

(b) Gerade in der Gegend, nach der ich reifte, follten die nbelften Nanbnester liegen, an der Theiß, woo die Sümpfe und Wüsten ihre Unsrottung fast unmöglich machen. Sie sind vortrefslich beritten und bewaffnet, diese Landstreicher, überfallen in Banden von sünitzehn oder zwanzig die Reisenden und die Höse und find am andern Tage zwanzig Meilen davon. Gegen anständige Leute sind sie höslich. Ich hatte den größten Teil meiner Barschaft zurückgelassen, nur etwas Wäsche bei mir, und hatte eigentlich einen Richel, diese Räuber zu Pferde, in großen Belzen, mit Doppelflinten in der Hand und Pisstolen im Surt, deren Unführer solltwarze Massen tragen und zuweilen dem kleinen Landadel angehören sollen, näher kennen zu lernen.

Fürst Bismard (Brief aus Ungarn, 1852).

(c) Im Ungemach verzage nicht, den Tag zu sehn, Der Freude dir für Sorgen bringt, und Lust für Gram. Bie oft begann ein gift'ger Wind, und schnell darauf Erfüllete der lieblichste Geruch die Lust. Oft drohte dir ein schwarz Gewölf und ward verweht, Eh' es den Sturm ausschüttete aus dunklem Schoß.

So mancher Nauch, der sich erhob, war Feuer nicht: Sei also stets, im Unfall auch, voll guten Muts! Die Zeit bringt Wunder an den Tag; unzählbar sind Die Güter, die du hoffen kannst vom großen Gott.

herder.

### 2. Translate into German :---

(a) I may have followed this narrow valley for about an hour, when it suddenly occurred to me as strange that the road should be so neglected and overgrown; it was evident that no sort of carriage could possibly have passed this way for years. The foliage of past autumns lay mouldcring in deep crevices; here and there a fragment of rock, or a rotten branch, had heen hurled from the edge by the winter storms; only in the firmest parts of the ground were occasional tracks of human passage. I silenced my doubts with the supposition that, long before this, some other and more level road must have been made between the castle and the plain. And yet, on entering the glen, I had certainly ascertained that no nearer way was possible from the little manufacturing town I had left behind. At the summit of the pass, where half-a-dozen neglected paths diverged, I stopped in real perplexity. I climbed up a wide-armed beech-trce, and looked all around me. A dcep circular hollow lay before me, almost like a lake filled with lovely dark-green waves of densest foliage. Just in the centre rose the turrets of the castle, over which the wilderness seemed to close.

- (b) Translate idiomatically :---
  - I. Birds of a feather flock together.
  - 2. Necessity knows no law.
  - 3. He did not know what to do.
  - 4. I don't know whom to apply to.
  - 5. Have you broken your leg? No, I have only sprained my foot.

SECTION II.-PHILOLOGY (AND WORD-FORMATION).

- 3. Exemplify the principal ways of forming compound nouns in German.
- 4. Explain the principal uses of the verbal prefixes-ber=, ger=, ent=.
- 6. Give examples of different case-forms (such as arc still in use, as well as such as are antiquated) used adverbially.

- 7. Explain, by examples, the principle of correspondence between dental consonants in English and German.
- Give some German adjectives in fam, with etymologically corresponding English adjectives; and some others in fam, where the corresponding English words show different affixes.
- 9. Give the German, or English, etymological equivalents of any ten of each of the following two sets (adding, in each case, the exact meaning of the German word :---
  - (a) timber, sheath, marrow, bleak, knuckle, ridge, neck, slight, to succes, cheap, deaf, bark (of tree), eyelid, harness, show.
  - (a) Flügel, Geiß, Geißel, Leinwand, Sort, eigen, Diele, Kluft, wähnen, auch, brauchen, Rechen, arg, erfiefen.

SECTION III.-LITERATURE.

- 10. What do you know of any two of these :-- Waltharinslied, Hilde= brandslied, Bolandslied, Helland.
- 11. Can you specify any German poems relating to the Heilige Gral and the Arturfage?
- 12. State what you know of the beginning of dramatic literature in Germany.
- 13. Characterize Rlopftod's literary activity.
- 14. Give brief accounts of two of these Hans Sachs, Dpit, H. v. Aleift, Tieff, Rückert.
- 15. Give the names of five distinguished writers of ballads, with the titles of as many of their poems as you remember.
- 16. What do you understand by Schidfalstragodien? Mention any you know.
- 17. Specify the chief works of two writers of the Schmäbische Dichterschnle, and of two of the Romantifer.
- 18. Assign any twelve of the following titles to the respective authors characterizing them in a single word (drama, epic, etc.) :--Der arme Heinrich, Simpliciffinus, Freidank, Teuerdank, der sterbende Eato, Agathon, die Schuld, des Knaben Wunderhorn, Nömische Elegieen, Schilklieder, Lichtenstein, Ekkard, Pfalter und Harfe, Palmblätter, der Rattensfänger von Hameln, die Duihows, der grüne Heinrich, der zerbrochene Krug, Duintus Firlein.

#### ARITHMETIC.

#### LOWER GRADE.

#### Monday, 13th June. 10 A.M. to 11.30 A.M.

Candidates need not attempt more than three-fourths of this paper. But any omissions, whether of reasoning, explanation, or calculation, will be treated as errors. Additional marks will be given for neatness and good style.

- 1. Multiply 537,869 by 800,790, and write the answer in words.
- 2. Reduce 571,536 farthings to guincas; and 3 weeks 2 days 14 hours 25 minutes 41 seconds to seconds.
- 3. Find the greatest common measure of 29256 and 21413; and the least common multiple of 294, 315, 350 and 360.
- 4. Simplify—

(1) 
$$4\frac{3}{4} + 5\frac{1}{20} + 3\frac{1}{9} - 11\frac{2}{5}$$
;  
(2)  $\frac{\frac{3}{11}}{\frac{20}{53}} \frac{31\frac{5}{17}}{17}$ .

- 5. Find the value of  $\frac{2}{4}\frac{5}{85}$  of 2  $\frac{97}{114}$  of £15 7s. 2d.; and reduce £3 15s.  $7\frac{1}{2}d$  to a decimal of 2s.
- 6. A room is 17 fect long, and 13 fect 6 inches broad; find (1) how many yards of carpet, 2 ft. 3 ins. wide, will be required to cover the floor; (2) the price of the carpet at 5s. 4d. a yard.
- 7. The gold reserve of a bank weighs 27 tons 10 cwt. 3 qr. 3 lb. If there be 7,000 grains in 1 lb. avoirdupois, and a sovereign weigh 123'374 grains, find the value of the reserve.
- 8. The Post Office manufactures post cards at the cost of £283 6s. 8d. per million, and sells them at 10 for 6d. What profit will be made on 144,750 post cards if the cost of carrying them to their destination be estimated at 30s. per 1,000?
- 9. £135 accumulating at simple interest becomes £189 in 12 years; find the rate per cent. per annum.
- 10. An egg merchant buys eggs at 9d. per dozen, and sells them at 15 for 1s.; how much per cent. on his outlay does he gain or lose?
- 11. A runs a mile race with B, and receives 75 yards start, but loses one foot every seven yards he runs. By how much will A gain or lose the race?
- 12. Turf is taken from a field 2 furlongs 36 poles 3 yds. 2 ft. long and 2 furlongs 14 poles 2 yds. 2 ft. 3 in. broad, and is found to be exactly sufficient to cover a square garden. Find the length of one side of the garden.

### ALGEBRA.

### LOWER GRADE.

## Monday, 13th June. 3 P.M. to 4.30 P.M.

Candidates need not attempt more than three-fourths of this paper. But any omissions, whether of reasoning, explanation, or calculation, will be treated as errors. Additional marks will be given for neatness and good style.

1. Find the numerical value of-

(1.) 
$$a-2[b-3\{a-4(b-c)\}] - \sqrt{a^2+2b^2+3c^2},$$
  
(2.)  $(a-2b)^2+(b-2c)^2+(c-2a)^2,$   
= 1,  $b = -2, c = 3.$ 

2. One of the factors of  $x^7 + x^6 + x + 1$  is  $x^3 + x^2 + x + 1$ , find the other factor.

3. Solve the equations-

(1.) 
$$\frac{5x}{12} + \frac{2x}{15} = \frac{2x+1}{4}$$
;  
(2.)  $\frac{(x+3)(x+4)}{(x-3)(x-4)} = \frac{x+8}{x-6}$   
(3.)  $\frac{a}{x-b} - \frac{b}{x-a} = 0$ .

4. Simplify-

when a

(1.) 
$$\frac{1}{(1+x)^2} - \frac{2}{1-x^2} + \frac{1}{(1-x)^2};$$
  
(2.) 
$$\frac{a^2}{(a-b)(a-c)} + \frac{b^2}{(b-c)(b-a)} + \frac{c^3}{(c-a)(c-b)};$$
  
(3.) 
$$\frac{\frac{x^3-y^3}{x-y} - \frac{x^3+y^3}{x+y}}{\frac{x+y}{x-y} - \frac{x-y}{x+y}};$$

5. Solve the equations-

(1.) 3x + 4y = 5x + y = 17; (2.) 4x - 3y = 1 $4y - 3z = \frac{7}{12}$  $4z - 3x = -\frac{1}{2}$ 

6. Prove that  $x^m \times x^n = x^{m+n}$ , when *m* and *n* are positive whole numbers.

Simplify 
$$\frac{a^{\frac{1}{2}} b^{\frac{1}{3}} c^{\frac{1}{4}} \times a^{\frac{1}{3}} b^{\frac{1}{3}} c^{-\frac{1}{4}}}{a^{-1} b^{-1}}$$

7. Extract the square root of-

$$a^{6}-a^{5}+\frac{1}{12}a^{4}-2\frac{1}{2}a^{3}+\frac{1}{2}a^{2}-\frac{2}{3}a+1$$
.

8. A has a certain number of shillings, and B has the same number of pence. A gives B three shillings in exchange for their value in pence, and it is now found that A has twice as many coins as B. How many had each at first?

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9. Prove that a quadratic equation cannot have more than two roots.

10. Solve the equations—

(1.) 441 
$$x^2 + 1 = 42x$$
;  
(2.)  $x^2 + 2a (x-b) = b^2$ ;  
(3).  $\frac{15}{x+2} - \frac{8}{x-1} = \frac{3}{x-4}$ .

11. If A live other 28 years, his age will then be the square of what it was 28 years ago. Find his present age.

#### GEOMETRY.

#### LOWER GRADE.

### Monday, 13th June. 12 noon to 2 P.M.

Candidates need not attempt more than three-fourths of this paper. But any omissions, whether of reasoning, explanation, or calculation, will be treated as errors. All ordinary contractions may be used Additional marks will be given for neatness and good style.

1. Define a line, a straight line, and a parallelogram.

Give Euclid's definition of a square. What is meant by saying that this definition is redundant? How might a square be defined so as to avoid redundancy?

2. Describe an equilateral triangle on a given finite straight line.

Write out the definitions, postulates, and axioms which you have made use of in the above proof.

3. If one side of a triangle be produced, the exterior angle is equal to the sum of the two interior opposite angles, and the sum of the three interior angles is equal to two right angles.

ABC is an isosceles triangle, in which AB = AC. Through C, CD is drawn perpendicular to BC, meeting BA produced in D; show that A is the mid-point of BD.

4. The complements of the parallelograms which are about the diagonal of any parallelogram are equal.

ABC is a triangle, right-angled at A; from P, a point in BC perpendiculars PM, PN are drawn to AB, AC; show that the rectangle AMPN equals the rectangle contained by BM, CN.

5. Divide a straight line, so that the rectangle contained by the whole line and one of its parts may be equal to the square on the other part.

AB is divided in P, so that the rectangle AB.PB is equal to the square on AP, and from AP, AQ is cut off equal to PB; show that the rectangle AP.QP is equal to the square on AQ.

6. If from a point within a circle which is not the centre, straight lines be drawn to the circumference, the greatest is that which passes through the centre, and, of the others, that which is nearer to the centre is greater than that which is more remote.

Construct the locus of a point within a circle whose greatest distance from the circumference is equal to a given chord of the circle.

- 7. AB is a diameter of a given circle, and C is a point on AB produced. Describe a circle which shall touch AB at the point C, and shall also touch the given circle.
- 8. The opposite angles of a quadrilateral inscribed in a circle, are together equal to two right angles.

In the quadrilateral ABCD, AB=BC, and the angles at A and C are supplementary; show that BD bisects the angle at D.

9. Two circles intersect in A, B, and P is a point in AB produced. Prove that the tangents drawn from P to the two circles are equal.

### ARITHMETIC.

#### HIGHER GRADE AND HONOURS.

### Monday, 13th June. 10 A.M. to 11.30 A.M.

Candidates need not attempt more than three-fourths of this paper. But any omissions, whether of reasoning, explanation, or calculation, will be treated as errors. Additional marks will be given for neatness and good style.

- 1. How many hours have elapsed between 4 p.m. on 23rd January 1876, and 10 a.m. on 13th June 1892.
- 2. Simplify-

(1.) 
$$\frac{123123}{12123} - \frac{72171}{250040}$$

$$67 - 94 + 42 - 2$$
 of 2

(2.)  $\frac{-11}{1}$  of  $14\frac{1}{2}$ 

- (3.)  $\frac{1}{3}$  of  $\frac{4}{5}$  of 14s. 6d.  $+\frac{2}{3}$  of  $\frac{6}{25}$  of 11s.  $9\frac{1}{4}d. -\frac{3}{17}$  of 16s.  $3\frac{1}{2}d$ .
- 3. Find the simple interest on  $\pounds 3,591$  5s. at  $3\frac{1}{4}$  per cent. from 2nd January 1892, to 3rd May 1892.
- 4. Reduce .481 of .518 of .081 of .06875 of 405 miles to yards.
- 5. A metre is 39.37 inches (approximately), and a kilometre is 1,000 metres. Express in miles, yards and inches, a distance of 257.4 kilometres.
- 6. A mass of auriferous sand, weighing 12 cwt. (avoirdupois), is known to contain 3.8 per cent. of gold. From this, <sup>11</sup>/<sub>12</sub> of the sand is removed by washing, and the part removed is found to contain only 0.6 per cent. of gold. How many lbs., troy, of gold arc contained in the remaining cwt.?
- 7. What two numbers, both greater than 29, have 29 for their greatest common measure, and 4147 for their least common multiple?
- (1.) Find the length of the side of a square field containing 11 acres 1 rood 10 square poles 3½ square yards, expressing your answer in furlongs, poles and yards.

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- (2.) If a rectangular field have one side 8 yards longer and another 34 yards shorter, than those of this square field, express its area in acres.
- 9. A person borrowed a sum of money at  $3\frac{1}{2}$  per cent., and invested it in a stock at 115 paying  $4\frac{1}{2}$  per cent. dividend. If he gained thereby £190 in  $11\frac{1}{2}$  years, how much money did he borrow?
- 10. When A and B run a mile together, A wins by 10 yards; when B and C run together, B wins by 30 yards; when C and D run, D wins by 39. If, now, A and D run together, which will win and by how much.

## ALGEBRA.

### HIGHER GRADE AND HONOURS.

#### Monday, 13th June. 3 P.M. to 4.30 P.M.

Candidates need not attempt more than three-fourths of this paper. But any omissions, whether of reasoning, explanation, or calculation, will be treated as errors. Additional marks will be given for neatness and good style.

 Prove that (ab)<sup>m</sup>=a<sup>m</sup>b<sup>m</sup>, where m is a positive integer. Simplify the expressions :--

(1.) 
$$\frac{(x^4y^5)^2 \times (x^2y)^3}{(x^2y^3)^4 \div (xy^2)^5},$$
  
(2.) 
$$\left(\frac{x^by^c}{x^cy^b}\right)^a \times \left(\frac{x^cy^a}{x^ay^c}\right) \times \left(\frac{x^ay^b}{x^by^a}\right)^c.$$

2. Define the lowest common multiple of two algebraical expressions, and prove the rule for finding it.

Find the lowest common multiple of-

(1.)  $x^3 + 3x^2 - 4, x^3 - 3x + 2;$ 

(2.) 
$$a^3 + 2a^2b + 2ab^2 + b^3$$
,  $a^3 - 2a^2b + 2ab^2 - b^3$ .

3. Simplify the expressions :---

(1.) 
$$\sqrt{15-6\sqrt{6}} + \sqrt{10-4\sqrt{6}},$$
  
(2.)  $\frac{x+x^2}{1+x+x^2} - \frac{x-x^2}{1-x+x^2} + \frac{1-x^2-x^4}{1+x^2+x^4},$ 

4. Solve completely the equations-

$$(1.) \ 5(x^{2}-2)=2(3-x);$$

$$(2.) \ \frac{b}{x-a}-\frac{a}{y-b}=\frac{b^{2}-a^{2}}{ab}$$

$$(2.) \ \frac{a}{x-a}+\frac{b}{y-b}=2,$$

$$(3.) \ \frac{x^{2}}{y}+\frac{y^{2}}{x}=1\frac{1}{6}$$

$$(3.) \ x+y=1$$

5. Find the roots of the equation—

$$x^2 - px + q \equiv 0$$

Form the equation whose roots are  $\frac{1}{1+\sqrt{p}}$  and  $\frac{1}{1-\sqrt{p}}$ .

6. When are quantities said to be in (1) arithmetic, (2) geometric, (3) harmonic progression?

If a be the arithmetic mean of b and c, and c be the harmonic mean of a and b, find the numerical values of the ratios a : b : c.

- 7. Find the 10th term, and the sum of 10 terms of each of the series.
  - $(1.) 25, 225, 425 \dots, \\ (2.) 12, 6, 3 \dots$
- 8. I have an hour and a half to walk a certain distance at a certain rate. After walking half-an-hour, I find I must make a detour which will add a mile to the distance still to walk, but, by increasing my rate by a third, I arrive in time. Find my original rate.
- 9. Prove that the number of permutations of n different things taken three together is n(n-1) (n-2).
- 10. Prove the binomial theorem for a positive integral index. Find the coefficient of  $x^5$  in the expansion of  $(1-ax+bx^2)^4$ .

#### GEOMETRY.

### HIGHER GRADE AND HONOURS.

Monday, 13th June. 12 noon to 2 P.M.

Candidates need not attempt more than three-fourths of this paper. But any omissions, whether of reasoning, explanation, or ealculation, will be treated as errors. All ordinary contractions may be used. Additional marks will be given for neatness and good style.

1. Define parallel straight lines, a parallelogram, a rectangle.

Give Euclid's definition of a square and prove that it is redundant. How may a square be defined so as to avoid redundancy?

2. Equal triangles on the same side of the same base are between the same parallels.

The base BC of a triangle ABC is bisected in D, and through Q, any point on AD, PQR is drawn, parallel to BC, meeting AB, AC, in P, R; prove, by means of Book I. only, that PQ=QR.

3. An angle in a segment of a circle is equal to, less than, or greater than a right angle, according as the segment is equal to, greater than, or less than a semicircle.

A and B are fixed points on the circumference of a given circle, of which C is the centre, and P is any point on the circumference. If CN drawn perpendicular to PA meet PB in Q, show that the locus of Q is a circle.

- 4. The base BC of a triangle PBC is fixed, and the vertical angle BPC is of constant size. If CQ, BR be drawn perpendicular to PB, PC, meeting them in Q, R; show that for all positions of P, QR is of constant length.
- 5. If the three angles of one triangle are respectively equal to the three angles of another, their sides shall be proportional, those sides being homologous which are opposite to equal angles.

O is a fixed point on the tangent to a given eirele at A. Through O a secant OPQ is drawn, intersecting the eirele in P and Q. Prove that the ratio of the chords AP, AQ, is least when they are at right angles to each other.

- 6. Having given a triangle, construct another triangle such that the sides of the first triangle shall be equal respectively to the medians of the second triangle.
- 7. Draw a straight line perpendicular to a given plane, from a given point without it.

When are two non-intersecting straight lines said to be perpendicular to each other?

H is the orthocentre of the triangle ABC, and through H, HP is drawn perpendicular to the plane ABC; show that AP is perpendicular to BC.

8. When are two points inverse to one another relatively to a given circle ?

Show that when a circle C cuts two others A and B orthogonally, it cuts their line of centres in two points which are inverse to one another relatively to both circles.

9. Prove that the straight line joining the ends of any two parallel radii of two circles meets their line of centres in one or other of two fixed points.

The radii of two circles are  $2 \cdot 37$  and  $1 \cdot 25$  inches, and their eentres are  $0 \cdot 64$  inches apart. Calculate to two decimal places the distance of their centres of similitude from the eentre of the larger circle.

### TRIGONOMETRY AND LOGARITHMS.

#### HIGHER GRADE AND HONOURS.

### Monday, 20th June. 10 A.M. to 11.30 A.M.

Candidates need not attempt more than three-fourths of this paper. But any omissions, whether of reasoning, explanation, or calculation will be treated as errors. Additional marks will be given for neatness and good style.

The use of a book of mathematical tables is allowed, provided that it contain no manuscript notes or printed matter other than such as refers to the use of the tables.

1. What is denoted by the symbol  $\pi$ ?

Express in eircular measure to four decimal places the magnitude of each angle of (1) a square, (2) a regular heptagon, assuming that  $\pi = 3.14157$ . 2. Define the secant of an angle, and prove that its value can never lie between -1 and +1.

Show that sec  $A = \pm \sqrt{1 + \tan^2 A}$ .

3 Prove geometrically that 
$$\sin A - \sin B = 2 \sin \frac{A - B}{2} \cos \frac{A + B}{2}$$

- 4. Obtain the following formulæ-
  - (1)  $\sin 2 A = 2 \sin A \cos A$ ,
  - (2)  $\sin 3 A = 3 \sin A 4 \sin^3 A$ ,
  - (3)  $\tan^2 \frac{A}{2} = \frac{1 \cos A}{1 + \cos A}$ .

5. Prove that  $\log_a x^n = n \log_a x$ , when n is a whole number.

Employ a table of logarithms to find the value of-

(1) 
$$\frac{34 \cdot 75 \times \cdot 0163}{2 \cdot 568}$$
, (2)  $\frac{1}{(\cdot 0876534)^{5}}$ 

6. Prove that  $2 \cos A = \pm \sqrt{1 + \sin 2A} \pm \sqrt{1 - \sin 2A}$ .

Determine the limits between which A must be if the signs of both roots are *minus*, and find which signs must be taken when  $A = 700^{\circ}$ .

7. Show that in any triangle-

 $b \cos C + c \cos B = a.$ 

Hence, deduce the expression for the cosine of an angle of a triangle in terms of the sides.

8. Find an expression for r, the radius of the inscribed circle of a triangle.

Prove that 
$$r\left(\cot\frac{A}{2} + \cot\frac{B}{2} + \cot\frac{C}{2}\right) = \frac{1}{2}(a+b+c).$$

9. Solve the triangle in which---

$$\alpha = 563 \cdot 45,$$
  
 $\alpha = 40^{\circ} 31',$   
 $\alpha = 58^{\circ} 12'.$ 

### GEOMETRICAL CONICS.

HIGHER GRADE AND HONOURS.

Monday, 20th June. 4 P.M. to 5.30 P.M.

Candidates need not attempt more than three-fourths of this paper. But any omissions, whether of reasoning, explanation, or calculation, will be treated as errors. Additional marks will be given for neatness and good style.

1. If P be a point on a parabola whose focus is S and, PM be drawn perpendicular to the directrix, prove that the tangent at P bisects the angle SPM. If the tangent at P meet the tangent at the vertex in Y, and the axis in T, show that PY=YT, and that SY is a mean proportional between SA and SP.

If M be the foot of the perpendicular drawn from P to the directrix, prove that TM is parallel to SP.

2. Draw a pair of tangents to a parabola from an external point.

OP, OQ are two tangents to a parabola, and OS, produced if necessary, meets PQ in R, show that—

$$PR: QR = SP: SQ.$$

3. If B be the vertex of the diameter which bisects the focal chord PQ, then PQ=4 SB.

A number of parabolas have the same fixed point S for focus, and all pass through a fixed point B. Find the locus of the points where the diameters through B meet the chords through S, drawn parallel to the tangents at B.

4. If QQ' be any chord of a parabola, PV the diameter which bisects it, and RO any other diameter meeting the curve in R, and QQ' in O, prove that QO OQ'=4 SP RO.

Hence show that if a circle intersect a parabola in four points, the corresponding pairs of common chords are equally inclined to the axis.

- 5. Having given two straight lines and a point, find the directrix of the parabola which may be described so as to have the given point as focus, and the two given lines as tangents. Find also the points of contact of the given tangents.
- 6. Show that in any conic section the part of the tangent intercepted between the curve and the directrix subtends a right angle at the focus.

Hence, show that the tangents at the extremities of a focal chord intersect in the directrix.

7. Taking any definition of the ellipse, show it is symmetrical with regard to two axes at right angles to each other. If PQ be any chord through the centre, show that the tangents at P and Q will be parallel.

PQ is a diameter, and S is either focus, if PS bc produced to meet the tangent at Q in F, show that PF is equal to the major axis.

## ANALYTICAL GEOMETRY.

#### HIGHER GRADE AND HONOURS.

#### Monday, 20th June. 12 NOON to 1.30 P.M.

Candidates need not attempt more than three-fourths of this paper. But any omissions, whether of reasoning, explanation, or calculation, will be treated as errors. Additional marks will be given for neatness and good style.

The co-ordinate axes may be assumed to be rectangular throughout.

- 1. Find the length of the straight line joining the points (4, 3,) (1,-1), and the eosine of its inclination to the axis of x.
- 2. Obtain the equation to a straight line in the form y=mx+c, explaining the meaning of m and c.

Form the equation to a straight line passing through the point (2, 3) and at right angles to the line y=3x+4.

3. Show how to find the angle between the two straight lines represented by the equation  $Ax^2 + Bxy + Cy^2 = 0$ .

Show that the equation  $2x^2-3xy-2y^2+5y-2=0$  represents two straight lines at right angles.

4. If, in the equation y = mx + 5, m takes different values, what series of straight lines is produced ?

Find analytically and interpret the locus of the feet of perpendiculars drawn to these lines from the origin.

5. Show that  $x^2+y^2+2ax+2by=c$  is the equation to a circle, and find the equation to the straight line which touches it at the point (x', y').

Find also the equation to the normal at (x', y'), and show from its equation that it passes through the centre of the circle.

6. Find the equation to the tangent at any point of a parabola  $y^2 = 4ax$ .

Find the locus of the point of intersection of tangents to a parabola which include a right angle.

7. Show that the equation  $\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$  represents a hyperbola, and find the equations to its asymptotes.

### ELEMENTS OF DYNAMICS.

### Monday, 20th June. 2 P.M. to 3.30 P.M.

Candidates need not attempt more than three-fourths of this paper. But any omissions, whether of reasoning, explanation, or calculation, will be treated as errors. Additional marks will be given for neatness and good style.

1. What is meant by speed? Distinguish between uniform and variable speed.

A train leaves Paris at 8.30 p.m., and reaches Marseilles (537 miles distant) next day at 12.15 p.m. Find its average speed (1) in miles per hour, (2) in feet per second.

2. If two component velocities be represented in magnitude and direction by two adjacent sides of a parallelogram, their resultant shall be represented by the diagonal passing through their intersection.

A sledge party travel in a northerly direction on an ice floe at the rate of v miles per day, but the floe is being carried south-

west at the rate of  $\frac{v}{12\sqrt{2}}$  miles per hour. Find the resultant velocity.

- 3. What is acceleration? What is meant by saying that g=32? Find what distance a body must fall from rest in vacuo in order to acquire a velocity of 48 fect pcr second.
- 4. When is a force said to do work?

Iu a waterfall 20 tons of water pass over in each minute, and the potential energy lost by the fall amounts to 22,000 footpounds per second. Find the height of the fall.

- 5. A sphere, whose weight is 10 lbs., rests on two planes which are at right angles to each other and are inclined to the horizontal plane at angles of 30° and 60° respectively. Find the pressure exerted on each plane.
- 6. Explain what is meant by the centre of mass of a body. Find the centre of mass of three equal particles placed at the vertices of a triangle ABC.
- 7. Distinguish between stable, unstable, and neutral equilibrium, giving two examples of cach.
- 8. Prove that the surface of a liquid at rest is a horizontal planc. Is the above statement true of large surfaces? If not, why not?
- 9. What is meant by saying that the specific gravity of sea-water is 1.025? A piece of metal weighs 280 lbs. in air and 240 in fresh water, what will it weigh in sca-water?

### BOOK-KEEPING.

#### Friday, 17th June. 10 A.M. to 1 P.M.

Frame the Journal entries necessary to record the following transactions; post to Ledger Accounts, then frame Balance Sheet and Profit and Loss Account.

James and Alexander Campbell purchase the Printing Business of Andrew Smith as a going concern for  $\pounds 10,000$ , and commence business on 1st January 1891, under the title of Campbell Bros.

The following is the state of affairs when they take over the business :---

#### ASSETS.

|                |           |          |      |   |   | £     | s. | d. |  |
|----------------|-----------|----------|------|---|---|-------|----|----|--|
| Buildings valu | ed at     |          | . ·  | - | - | 3,250 | 0  | 0  |  |
| Machinery      | >>        | -20      | -    | - | - | 2,350 | 0  | 0  |  |
| Туре           | >>        | - 31     | 0    |   | - | 1,260 | 0  | 0  |  |
| Paper          | 39        | 1-       | -    | - | - | 600   | 0  | 0  |  |
| Sundries       | 33        |          | -    | ( | - | 344   | 0  | 0  |  |
| Due by Green   | and Co.   | , Publis | hers | - | - | 259   | 5  | 9  |  |
| ,, D. M.       | acken'zie | -        | -    | - | - | 256   | 14 | 3  |  |
| " Goodwill "   | -0.55-0   | 5        | - 1  | - | - | 2,000 | 0  | 0  |  |
|                |           |          |      |   |   |       |    |    |  |

#### LIABILITIES.

| Duc to | Brown and Ritchie, Typefounders  | = " | 157 | s.<br>11 |   |  |
|--------|----------------------------------|-----|-----|----------|---|--|
| "      | Alex. Bowman & Sons, Papermakers | -   | 162 | 8        | 3 |  |

1891.

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9.3

Jan. 1. James Campbell subscribes £6,000, and Alexander Campbell, £4,000, which is lodged with the British Linen Company Bank.

- 1. Paid Andrew Smith, per cheque, £5,000; per bill, at one month after date, £5,000.
- 5. Bill drawn by us on D. Mackenzie for  $\pounds 256$  14s. 3d., at three months after date, accepted by him.
- 8. Purchased from Alex. Bowman & Sons, paper for £236 3s. 9d., on credit.
- 8. Purchased from Brown & Ritchie, type for £83 17s. 2d., on credit.
- " 15. Green & Co. paid their account (£259 5s. 9d.), and are allowed 10 per cent. discount. Sum received is lodged in Bank.
- , 31. Cash drawn from Bank, £100.

, 31. Paid wages, £73 2s. 6d.

- " 31. " Sundry charges, £23 1s. 9d.
- " 31. " Taxes, £42 1s. 7d., per cheque.

1891.

Jan. 31. Printing executed during January :---

Book for Green & Co., charge, £372 10s.

Sundries for D. Mackenzie, charge £65 10s. 3d.

31. Debt incurred to Alex. Hunt, for bookbinding, £16 7s. 3d.

Feb. 2. The sums due to the following at 1st January, are paid per cheque:----

Brown & Ritchie, less 5 per cent. discount.

Alex Bowman & Sons, less 5 per cent. discount.

- " 10. Green & Co. accept Messrs. Campbell Bros.' bill for £372 10s., at three months after date, which is discounted by the Bank at 5 per cent., and the moncy placed to the credit of Messrs. Campbell Bros.' account.
- " 28. Wages paid, £69 2s. 3d.

" 28. Sundry charges, £19 17s. 5d.

,, 28. Cash drawn from Bank, £90.

" 28. Printing done during month :--

Catalogue for D. Mackenzie, charge, £145 16s. 6d. Two books for Green & Co. ,, £325 10s.

, 28. Paper returned to Alex. Bowman & Sons, £25 2s. 6d.

Acceptances due by Campbell Bros. are paid by the Bank, and debited.

At 28th February, Inventories of the Stocks on hand are taken, with the following result :---

Paper, £625 2s. 6d. Sundries, £256 7s. 6d.

Type and Machinery are not valued, but  $2\frac{1}{2}$  per cent. is written off the cost for depreciation; and £100 is written off goodwill.

Allow interest, at the rate of 5 per cent. per annum on partners' capital, and carry balance of profit (if any) equally to credit of partners.

## COMMERCIAL ARITHMETIC-FIRST PAPER.

## Friday, 17th Junc. 2 P.M. to 2.30 PM.

This paper will be taken up at the end of *half-an-hour*, when the other paper will be given out.

The sums are not to be copied out.

Add the *columns* and *rows*, and find the *grand total*, placing the answers in the spaces provided. Great importance will be attached to accuracy.

## Fill this in first.

Name of School\_

Name of Pupil\_

| and the second |    |    |       |            | 1000 | der marte | Sec. 1     | a la ser |     |     | - And |
|----------------|----|----|-------|------------|------|-----------|------------|----------|-----|-----|-------|
| £              | s. | d. | £     | <i>s</i> . | d.   | £         | <i>s</i> . | d.       | £   | \$. | đ.    |
| 824            | 9  | 6  | 26    | 13         | 9    | 4,126     | 14         | 7        | 35  | 6   | 1     |
| 139            | 12 | 8  | 5,342 | 14         | 1    | 93        | 16         | 8        | 89  | 14  | 2     |
| 4,240          | 8  | 11 | 27    | 2          | 5    | 317       | 3          | 8        | 65  | 16  | 10    |
| 233            | 12 | 8  | 1,784 | 9          | 1    | 85        | 14         | 4        | 45  | 13  | 7     |
| 15             | 14 | 4  | 417   | 10         | 5    | 1,735     | 12         | 5        | 178 | 12  | 6     |
| 3,173          | 1  | 0  | 183   | 0          | 8    | 71        | 6          | 6        | 56  | 7   | 8     |
| 831            | 0  | 10 | 827   | 15         | 6    | 215       | 10         | 8        | 95  | 14  | 9     |
| 4,213          | 14 | 7  | 85    | 5          | 10   | 34        | 8          | 5        | 124 | 6   | 8     |
| 17             | 16 | 4  | 72    | 13         | 10   | 3,572     | 12         | 9        | 39  | 12  | 11    |
| 5,208          | 9  | 9  | 1,937 | 9          | 0    | 18        | 13         | 2        | 148 | 6   | 10    |
| 3              | 12 | 8  | 316   | 12         | 4    | 825       | 19         | 4        | 24  | 16  | 2     |
| 665            | 15 | 2  | 31    | 3          | 4    | 3         | 17         | 11       | 77  | 13  | 4     |
| 138            | 4  | 7  | 3,145 | 11         | 10   | 173       | 0          | 9        | 29  | 9   | 8     |
| 485            | 12 | 8  | 136   | 4          | 6    | 412       | 3          | 4        | 42  | 16  | 11    |
| 236            | 8  | 3  | 712   | 16         | 4    | 29        | 8          | 7        | 73  | 4   | 7     |
|                |    |    |       | -          |      |           | 31         |          |     |     | -     |
|                | 1  |    |       | 25         |      | 1         | -14-5-     |          | 1   |     | 13.5  |

### COMMERCIAL ARITHMETIC-Second Paper.

### Friday, 17th June. 2.30 P.M. to 4 P.M.

Candidates need not attempt more than three-fourths of this paper. But any omissions, whether of reasoning, explanation, or calculation, will be treated as errors. Additional marks will be given for neatness and good style.

- 1. A man's income is £300 a year. He pays no income-tax on the first £120, and 6*d*. in the pound on the rest. His house-rent is £43 3s. 3*d*., and he spends otherwise at the rate of  $10s. 3\frac{1}{2}d$ . a day. How much will be save in the year 1892?
- 2. A kilogramme weighs 2 20462 lbs., avoirdupois. Express the weight of a gramme in grains and decimals of a grain.
- 3. A sovereign weighs  $123\frac{1}{3}$  grains, of which  $\frac{11}{12}$  are gold. If gold be  $17\frac{1}{2}$  times as valuable as silver, what weight of silver will be equal in value to the gold in 153 sovereigns? Give the answer in pounds and decimals of a pound, avoirdupois.
- 4. Three teas are mixed, and the first two amount respectively to 34 and 25 per cent. of the whole. If the weight of the whole be 1 cwt. 2 qrs. 13 lbs. 4 ozs., find the weight of the third tea.
- 5. A cistern, 10 feet long, 7 feet broad, and 5 feet deep, is filled with water, which runs into it at the rate of 8 feet per second through a pipe whose section is  $\frac{3}{4}$  of a square inch. How long will it take to fill?
- 6. I sell £10,000 Great Western Railway 4 per cent. Debenture Stock at £133 (including brokerage), and buy £8,000 Stock in the  $2\frac{3}{4}$  per cent. Consols at £95 $\frac{3}{4}$  (including brokerage). I lend the rest of the money on mortgage at  $3\frac{3}{4}$  per cent. Find the change in my income.
- 7. The national debt is £684,070,959, upon which 3 per cent. is annually paid for interest and expenses. If £25,000,000 be annually set aside for this purpose and to reduce the debt, find, to the nearest pound, the amount of the debt at the end of three years.
- 8. Prove the following rule for finding any per-centage of a given whole number of pounds sterling :—Multiply the number of pounds by twice the rate per cent., set off one decimal place, and the result represents in shillings the per-centage required.

Examplify this rule by making use of it to find (1)  $3\frac{1}{2}$  per cent. of £25, (2)  $4\frac{1}{2}$  per cent. of £1,247.

9. If the exchange in Glasgow on Paris be 25.50, and the rate of banker's discount for three months' bills in Glasgow be 3<sup>1</sup>/<sub>2</sub> per cent. per annum, what debt in Paris can be discharged by a person in Glasgow who holds a three months' bill on Glasgow for £800?

# LEAVING CERTIFICATE, 1892.

RESULTS OF EXAMINATION for LEAVING CERTIFICATES held by the SCOTCH EDUCATION DEPARTMENT from the 13th to the 21st of June (inclusive).

| Number of Schools<br>at which<br>Examination<br>was held. | Total Number<br>of<br>Candidates. | Number<br>of<br>Papers takcu. |
|---|-----------------------------------|-------------------------------|
| 52  | 3,420                             | 14,455                        |

## I.-HIGHER CLASS SCHOOLS.

### II.-STATE-AIDED SCHOOLS.

| Number of Schools<br>from which Candi-<br>datcs were presented<br>for Examination. | Total Number<br>of<br>Candidates. | Number<br>of<br>Papers taken. |  |
|--|-----------------------------------|-------------------------------|--|
| 63*  | 1,755                             | 4,236                         |  |

\* Separate Examinations were held at 47 of these Schools.

1.--LIST of HIGHER CLASS SCHOOLS at which the EXAMINATION was held.

| Aberdeen Grammar School (Boys).<br>Aberdeen, Robert Gordon's College. | Edinburgh, George Heriot's Hospital<br>School.    |
|---|---|
| Anstruther Waid Academy.  | Edinburgh, George Watsou's Boys'<br>College.      |
| Arbroath High School.<br>Ayr Academy.                                 | Edinburgh, George Watson's Ladies' Col-<br>lege.  |
| Beith, Spicr's School.  | Ediuburgh Institution.                            |
| Cricff, Morrison's Academy (Boys and                                  | Edinburgh, Ladies' College.                       |
| Girls).   | Ediuburgh, Morchiston Castle School.              |
| Cupar, Bell Baxter School.  | Edinburgh, Royal High School.                     |
| Dollar Institution.<br>Dumfries Academy.                              | Ediuburgh, St. George's High School for<br>Girls. |
| Dundce High School.   | Elgin Academy.                                    |
| = 0   | Falkirk High School.                              |
| Duufermliue High School.  | Forfar Academy.                                   |
| Edinburgh Academy.  | Galashiels Academy.                               |
| Ediuburgh, Daniel Stewart's College.                                  | Galashiels, Gala High School.                     |
| Edinburgh, Fettes College.  | Glasgow Academy.                                  |
|   |   |

# ( 63 )

| Glasgow High School.                           | Nairn, Rose's Academical Institution.      |
|--|--|
| Glasgow, Hutcheson's Boys' Grammar<br>School.  | Newton Stewart, Ewart High School (Boys).  |
| Glasgow, Hutcheson's Girls' Grammar<br>School. | Newton Stewart, Ewart High School (Girls). |
| Glasgow Kelvinside Academy.                    | Paisley Grammar School and Academy.        |
| Greenock Academy.                              | Pcebles, Bonnington Park High School.      |
| Haddington Knox Institute.                     | Perth Academy.                             |
| Hamilton Academy.                              | Perth, Sharp's Institution.                |
| Inverness Royal Academy.                       | Polmont, Blairlodge School.                |
| Irvine Royal Academy.                          | St. Andrew's Madras College.               |
| Kirkcaldy High School.                         | Stirling High School.                      |
| Kirkcudbright Academy.                         | Tain Royal Academy.                        |
| Montrose Academy.                              | tain 150 yat Academy.                      |
|  |  |

II.—LIST OF STATE-AIDED SCHOOLS from which CANDIDATES were PRESENTED for EXAMINATION.

| Aberdeen Church of Scotland Practising<br>School.                 | Edinburgh, St. George's Local General<br>Assembly School.        |
|---|--|
| Aberlour Public School.   | Fordyce, Portsoy Female Industrial                               |
| Airdrie Academy Public School.                                    | School.  |
| Alvah Public School.  | Fordyce, Portsoy Public School.                                  |
| Banff Burgh Public School.  | Fordyce Public School.   |
| Beith Academy Public School.                                      | Forres Anderson's Endowed Institution.                           |
| Blairgowrie Public School.  | Forres Burgh Public School.                                      |
| Boyndie Public School.  | Foveran Public School.   |
| Broughty Ferry, Grove Academy Public                              | Galston Public School.   |
| School.   | Glasgow Garnethill Public School.                                |
| Cambuslang Public School.<br>Cambuslaug West Coats Public School. | Govan, Bellahouston Academy Public<br>School.                    |
| Campbeltown Grammar Public School.                                | Govan, Hillhead Public School.                                   |
| Cathcart Qucen's Park Public School.                              | Govan, Partick, Hamilton Crescent Public<br>School.              |
| Closeburn Wallace Hall Academy.<br>Conpar Angus Public School.    | Govan, Pollokshields, Albert Road Public<br>School.              |
| Croy and Dalcross, Croy Public School.                            | Govan, Rutland Crescent Public School.                           |
| Dryfesdale Public School.   | Greenock Holmscroft Public School.                               |
| Dumbarton Academy Public School.                                  | Hamilton St. John's Grammar School.                              |
| Dundee, Dudhope Public School.                                    | Huntly Gordon Public School.                                     |
| Dundce, Glebelands Public School.                                 | Inverness Raining's School.                                      |
| Dundee, Harris Academy Public School.                             | Keith Public School.   |
| Dundee, Morgan Academy Public School.                             | Kelso, Edenside Road Public School.                              |
| Dunoon Grammar Public School.<br>Durness Durine Public School.    | Killarrow and Kilmeny, Bowmore Public<br>School.                 |
| Edinburgh (St. Cuthbert's and Dean)                               | Kilmarnock Academy Public School.                                |
| Gorgie Public School.   | Kilniuian and Kilmore, Tobermory Argyll<br>Street Public School. |
|   |  |

Kinellar Public School. Peterhead Academy Public School. Kingussie Public School. Kirkwall Burgh Public School. Lanark Grammar Public School. Lenzie Academy Public School. Lochalsh Plockton Public School. New Kilpatrick Public School.

Paisley Neilson Educational Institution.

Row, Helensburgh Hermitage Public School. Rutherglen Stonelaw Public School. Thurso Miller Institution Public School. Wemyss, Buckhaven Public School. Higber Grade Wick, Pulteneytown Academy Public Old Kilpatrick, Clydebank Public School. School.

TABLE showing Subjects in which Candidates were presented, and Results of the Examination.

|  | Total | Passed i             | Passed in different Grade |       |                             |                  |  |
|--|-------|----------------------|---------------------------|-------|-----------------------------|------------------|--|
| Subject.                                   |       | Number<br>presented. | Lower. Hig                |       | er. Honours.                | Total<br>Passes. |  |
| English                                    | -     | 3,099                | 1,516                     | 458   | 79                          | 2,053            |  |
| Latiu                                      | -     | 1,233                | 541                       | . 264 | 29                          | 834              |  |
| Grcek                                      | -     | 690                  | 253                       | 110   | 11                          | 374              |  |
| French                                     | -     | 1,933                | 924                       | 243   | 78                          | 1,245            |  |
| German                                     |       | 1,249                | 752                       | 161   | 42                          | 955              |  |
| Italian                                    | -     | ` 4                  |                           | 4     |                             | 4                |  |
| Mathematics* (including Arith              | 1-    | 1,925                | 732                       | 152   | 40                          | 924              |  |
| mctic).<br>Arithmetic only -               | -     | 2,514                | 1,448                     | 131   |                             | 1,579            |  |
|  |       |                      | Passe                     |       | Passed with<br>Distinction. |                  |  |
| Geometrical Conics -                       | -     | 97                   | 52                        | Í     | 14                          | 66               |  |
| Analytical Geometry -                      | -     | 78                   | 36                        |       | 17                          | 53               |  |
| Dynamics                                   | -     | 295                  | 106                       |       | 53                          | 159              |  |
| Book-kceping and Commercia<br>Arithmetic.† | al    | 278                  | 10                        |       |                             | 147              |  |

\* To 635 candidates who have failed to pass iu mathematics, but have passed in arithmetic, certificates will be issued in that subject only, as follows :-

> 110 in the Higher Grade. 525Lower 22 "

+ Candidates arc not passed in grades.

|                     |       |   | 1888. | 1889. | 1890.  | 1891.  | 1892.  |
|---------------------|-------|---|-------|-------|--------|--------|--------|
| Number of candidate | s     | - | 972   | 2,066 | 2,528  | 3,120  | 5,175  |
| " schools -         |       | - | 29    | 41    | 43     | 50     | 115    |
| " papers tal        | ken - | - | 4,300 | 9,200 | 11,300 | 13,192 | 18,691 |

Scotch Education Department, Dover House, Whitehall, 6th July 1892. H. CRAIK, Secretary.

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