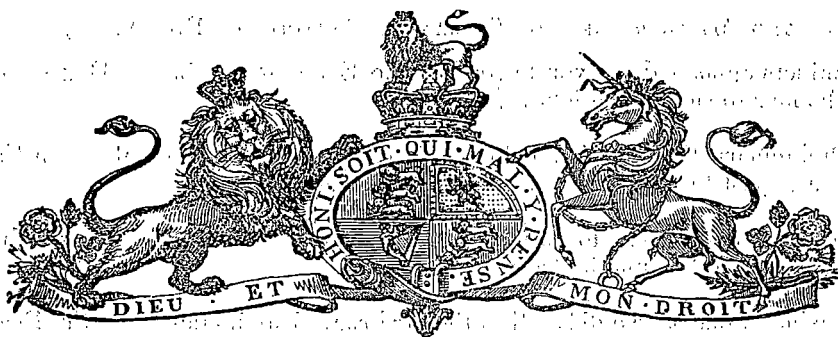1870.

TASMANIA.

LEGISLATIVE COUNCIL.

DEGREE OF ASSOCIATE OF ARTS.

REPORT FOR 1869.

Laid upon the Table by Mr. Wilson, and ordered by the Council to be printed,
August 23, 1870.

TASMANIAN COUNCIL OF EDUCATION.

DEGREE OF ASSOCIATE OF ARTS.—SEPTEMBER, 1869.

IN conformity with the Rules and Regulations of the Tasmanian Council of Education, the Council have directed the publication of the names of the Candidates who have passed the Examination for the Degree of Associate of Arts to the satisfaction of the Examiners, and upon whom that Degree has been conferred accordingly.

FIRST CLASS.

DOUGLAS, EDWARD STEWART, aged 15 years and 9 months, Pupil of the Horton College, Ross, W. W. Fox, Esq., B.A., Head Master. Awarded the Council's Gold Medal, First Prize for English, First Prize for Latin, First Prize for Greek, First Prize for French, and First Prize for Mathematics.

JOHN WILLIAM HENRY GEISS, aged 16 years and 11 months, Pupil of the High School, Hobart Town, Rev. R. D. Powlett Harris, M.A., Rector. Awarded the Council's First Prize in Natural Philosophy and the First Prize in Chemistry.

WILLIAM ROBERT STEWART, aged 17 years and 2 months, Pupil of the Horton College, Ross, W. W. Fox, Esq., B.A., Head Master.

JOHN OLIVER THOMAS, aged 17 years and 5 months, Pupil of the High School, Hobart Town, Rev. R. D. Powlett Harris, M.A., Rector. Awarded the Council's Second Prize for French, and the Second Prize for Greek.

CHARLES REIBEY BUCKLAND, aged 17 years, Pupil of the Hutchins School, Hobart Town, Rev. J. R. Buckland, B.A., Head Master.

HENRY ARUNDEL DOWNING, aged 16 years and 10 months, Pupil of the High School, Hobart Town, Rev. R. D. Powlett Harris, M.A., Rector.

SECOND CLASS.

CHARLES ERNEST DOWNING, aged 18 years and 9 months, Pupil of the High School, Hobart Town, Rev. R. D. Powlett Harris, M.A., Rector.

THIRD CLASS.

SYDNEY EVELYN INNES, aged 16 years and 3 months, Pupil of the High School, Hobart Town, Rev. R. D. Powlett Harris, M.A., Rector.

The Report of the Examiners, together with the General and Special Class Lists, and the Tabulated Results of the Examination, are subjoined.

By Order of the Council,

GEO. RICHARDSON, *Secretary.*

Hobart Town, 21st September, 1869.

EXAMINERS' REPORT.

MR. PRESIDENT AND MEMBERS OF THE TASMANIAN COUNCIL OF EDUCATION,

The Examiners appointed by you to conduct the Examination for the Degree of Associate of Arts have the honour to submit the following Report.

For the Preliminary Examination held on Monday, the 6th September, ten Candidates presented themselves,—just twice as many as came forward last year.

One Candidate was unable to satisfy the limited requirements of this Examination, having failed completely both in Arithmetic and in History.

Of the remainder, one or two did well in the *vivâ voce* Examination; but the Reading aloud as a whole was not good. There was a lack of distinctness and of intelligent emphasis in the performance of the bulk of the Candidates.

Perhaps both Teachers and Pupils will pay more attention to this important branch of Education when they learn that the Reading aloud has affixed to it a definite mark value, the same as that given to the Dictation, and to the Analysis and Parsing required at the Preliminary Examination; and that these marks are carried forward, and form no small fraction of the total number allotted to English.

The same course, it may be observed, has of late years been adopted with the Preliminary Arithmetic, History, and Geography.

The Analysis and Parsing was in the main satisfactory; but it is singular—and a proof either of great carelessness or of a want of real insight—that no less than three of the Candidates commenced their analysis by styling the words " If we look " a principal sentence.

The passage of Ruskin dictated was very well written out by the successful Competitors, though here and there queer mistakes crept in,—as, for instance, when " the long low hull familiar with the overflying foam" appeared as " the long low howl familiar with the ever flying foe !" Such errors, however, may be due partly to indistinctness of utterance on the part of the Reader, and not altogether to want of intelligence on the part of the Transcribers of his words. Still, in spite of all drawbacks, there can be little doubt that the writing out of a straightforward passage from dictation is a far better and more satisfactory test of the Examinees' acquaintance with their own language, than the correction of one of those long extracts of distorted, misspelt English to which Examiners are often perforce obliged to resort.

The Geography was good : the History, with one exception, fair.

But the Arithmetic was unquestionably bad.

Out of five simple questions on the first Four Rules, requiring nothing whatever but attention and accurate work, only one Candidate—Buckland—succeeded in doing as many as four without mistake.

The Examiners have so frequently called attention to the shortcomings of Candidates in this particular, that they now feel bound to urge upon the Council the adoption in future years of some very stringent rule, similar to that of the Professor of Mathematics for the Matriculation Examination on Arithmetic at the University of Melbourne, where it is required that out of ten questions set a Candidate should work out *five* with absolute correctness. And as there the subject is the whole of Arithmetic, while here it is restricted to the first Four Rules, Simple and Compound, it does not appear to the Examiners that it would be asking too much to demand that, to entitle a Candidate to pass, out of eight questions set, six, or at least five, should be done without the smallest mistake.

This may seem hard, but really is not so ; for unless a student has attained the power of performing the common operations of Elementary Arithmetic with absolute correctness, all his subsequent attainments in Higher Mathematics may prove, when brought to a practical test, utterly valueless.

With these remarks we pass to the Examination for the Degree, which commenced on Tuesday the 7th, and ended on Monday the 13th, September, with seven hours paper work every day.

Out of the nine Candidates one failed to qualify for the Degree, falling so far short of the standard in three subjects that the marks he got in two others were insufficient. In the averages appended no account is taken of his work.

The Reports for the several subjects are as follows:—

I. ENGLISH, INCLUDING HISTORY AND GEOGRAPHY.—Nine Candidates: all passed; one, D. E. Stewart, with credit.

The average of marks obtained is high, 672 out of a possible 1000, against 604 last year, and 586 in 1867.

This may be partly due to the somewhat greater weight given to the portions of the subject comprised in the Preliminary Examination; but, even after making allowance for this, there is sufficient difference to warrant a belief in a decided improvement.

For the portion of the examination bearing on the English Language the work had been unquestionably well prepared, and the form of the answers was on the whole good. Greater acquaintance than usual was shown with the history and derivation of individual words and of grammatical forms. The original compositions on the Life of Alfred, which required merely a résumé of what all had read, were fair, and those of Stewart and Geiss really good.

The question which was least satisfactorily answered was one asking for a clear statement of the grammatical relation between the former and the latter part of several compound words, (such as grass-grown, meaning, of course, overgrown by grass, the relation being that of instrument). The bulk of the Candidates either strangely misunderstood the drift of the question, or did not comprehend the meaning of the words given, and only the two Stewarts and Buckland gave moderately good answers.

Here and there, too, scattered through the papers were strange mis-spellings, which seem to prove some deficiency in written composition and careful revising thereof,—e.g. illiteration for alliteration, Sweeden for Sweden, ensignia for insignia, formidible for formidable.

The History had been well got up, and the answering was throughout fair.

The descriptive Geography—the book work—was well done; but what may be called map-knowledge was less satisfactory. Several, however, of the Candidates did show a very fair acquaintance with the map of their own Island. But all alike failed when asked to indicate the relative position of places on the Earth's surface by stating approximately the latitude and longitude of half a dozen well-known points. Hobart Town, for instance, was placed again and again by different Candidates in about 55 East Longitude. And yet if they had reflected a moment on the look of a map of the Eastern Hemisphere, they must have remembered how near to the Antipodes or 180° East Longitude the Capital of Tasmania is situated. Still, in spite of these defects, the Geography as a whole is not inferior to that of past years.

II. LATIN.—Nine Candidates: eight passed, one—D. E. Stewart—with credit. The average of marks is as nearly as may be the same as in the last two years, 480 out of a possible 800.

In the first paper, containing the more elementary questions, all who passed did fairly, and kept pretty well together, D. Stewart, Geiss, and Buckland translating very creditably the piece of Latin which they had not seen before.

The second paper, containing rather more difficult questions, separated the Candidates widely. The translations from English into Latin Prose and Verse were achieved with moderate success only by D. E. Stewart and by Geiss.

III. GREEK.—Nine Candidates: eight passed,—three, D. E. Stewart, Thomas, and Geiss, with credit.

The Grammatical questions were well answered, the translations from the prescribed books fairly done: but only the Senior Associate seemed at all equal to translating a piece of Thucydides at sight.

The Examination passed in Greek was certainly creditable, though the average of the marks is a little below that attained last year—462 as compared with 486.

IV. FRENCH.—Nine Candidates: eight passed,—three, D. E. Stewart, Thomas, and Buckland, with credit.

The average of the answering is much the same as in past years, though a little below that of 1868.

The preparation in French, as in the other languages, was good, and the answering to grammatical questions creditable; but the translation of French at sight was well done only by Buckland and the two Stewarts. D. E. Stewart alone was moderately successful in rendering a piece of English into French.

V. Mathematics.—Nine Candidates : seven passed, one—D. E. Stewart—with credit.

The two Candidates who failed broke down completely in the Lower Euclid and Algebra.

The remainder did fairly; the average of marks being slightly in excess of last year's.

On the whole, of the compulsory Mathematical subjects the Arithmetic was bad, the Euclid fair, and the Algebra good.

In the Lower Euclid and Arithmetic Geiss did considerably the best papers; but in Algebra and in the higher work he had no chance with D. E. Stewart.

For the honour work, Euclid, Books VI. and XI., and Trigonometry, a separate paper was given, as last year. The two Stewarts did fairly in the Euclid, and D. E. Stewart obtained nearly one-third of the marks allotted to Trigonometry.

VI. Natural Philosophy.—Four Candidates : three passed. One—Geiss—with credit.

The answering of the two who passed was very fair, and that of Geiss marked by considerable power, and very great accuracy in working out problems.

VII. Chemistry.—Two Candidates : both passed,—one, Geiss, with credit.

The answering testified to thoroughly hard labour creditable to the diligence of the Candidates in preparing the book work prescribed. But it is the opinion of the Examiner, that in future Examinations it would be well to require, in addition to this, some skill in practical chemical manipulation.

When the marks obtained in the several subjects were summed up, it was found that no fewer than six of the eight successful Candidates for the Degree had gained the minimum required for a First Class ; their names in order of merit being as follows :—

Douglas Edward Stewart.................................... 3041
John William Henry Geiss................................. 2995
William Robert Stewart.................................... 2405
John Oliver Thomas....................................... 2312
Charles Reibey Buckland.................................. 2290
Henry Arundel Downing.................................. 2211

that Charles Ernest Downing had obtained a good Second with 2114 ; and Sydney Evelyn Innes a fair Third with 1525.

This must be considered a highly creditable Class List; for the distinctions gained have been achieved by steady well-doing in a number of subjects, not by excellence in some compensating for very great deficiency in others.

On this occasion, as in 1865, the youngest Candidate for the Degree has achieved the highest position in the Examination.

With regard to the Examination as a whole, a tabular comparison with the last nine years gives the following results (omitting all Candidates over 19) :—

	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	TOTAL.
Total No. of Candidates	12	12	10	6	6	15	7	10	5	10	93
Rejected at Preliminary Examination.........	3	2	2	1	0	1	0	1	0	1	11
Admitted to Examination	9	10	8	5	6	14	7	9	5	9	82
Passed for A.A.	4	8	4	3	6	14	7	9	5	8	68
1st	3	2	0	0	2	6	2	4	3	6	28
2nd...............	1	2	1	3	2	2	2	3	0	1	17
3rd	0	4	3	0	2	6	3	2	2	1	23
Highest obtained......	2247	2722	2028	2003	3295	2955	2836	2530	2999	3041	2665*
Average of all who passed	2132	2013	1788	1921	2228	2028	1932	2095	2205	2362	2070*

* Average of previous years.

Comment on this is needless. In almost every single item—save the one in which scarcely any one can hope to rival Hogg, the Senior Associate of 1864, the maximum number of marks,—there is a clearly-marked advance.

The Prizes which, by the Council's Regulations, must be awarded, are these :—

To D. E. Stewart............ The Gold Medal.
First Prize for English.
First Prize for Latin.
First Prize for Greek.
First Prize for French.
First Prize for Mathematics.

The following Prizes, which by the Regulations are left to the discretion of the Examiners, have been thus awarded :—

To J. W. H. Geiss .... First Prize for Natural Philosophy.
First Prize for Chemistry.
To J. O. Thomas .... Second Prize for Greek.
Second Prize for French.

To your Examiners, the Secretary, Mr. Richardson, has given most valuable and zealous co-operation; and the papers have been printed with the usual rapidity and accuracy under the super-vision of Mr. Barnard.

Full Tables of results are appended to this Report.

For the Examiners,

M. H. IRVING, *M.A.*

17*th September*, 1869.

TASMANIAN COUNCIL OF EDUCATION.

EXAMINATION FOR THE DEGREE OF ASSOCIATE OF ARTS—September, 1869.

GENERAL CLASS LIST.

FIRST CLASS.

NAME.	MARKS.	AGE.			SCHOOL.	TEACHER.
		yrs.	mths.			
1. Stewart, D. E.	3041	15	9	Gold Medal. 1st Prizes— English, £10. Latin, £10. Greek, £10. French, £10. Mathematics, £10.	Horton College, Ross.	W. W. Fox, Esq., B.A.
2. Geiss, J. W. H.	2995	16	11	1st Prizes— Natural Philosophy, £5 Chemistry, £5.	High School, Hobart Town.	Rev. R. D. Harris, M.A.
3. Stewart, W. R.	2405	17	2	—	Horton College, Ross.	W. W. Fox, Esq., B.A.
4. Thomas, J. O.	2312	17	5	2nd Prizes— French, £5. Greek, £5.	High School, Hobart Town.	Rev. R. D. Harris, M.A.
5. Buckland, C. R.	2290	17	0	—	Hutchins School, ditto.	Rev. J. R. Buckland, B.A.
6. Downing, H. A.	2211	16	10	—	High School, ditto.	Rev. R. D. Harris, M.A.

SECOND CLASS.

7. Downing, C. E.	2114	18	9	—	High School, ditto.	ditto.

THIRD CLASS.

8. Innes, S. E.	1525	16	3	—	ditto.	ditto.

For the Examiners,

13 *September*, 1869.   M. H. IRVING, *M.A.*

SPECIAL CLASS LIST.

English.	Latin.	Greek.	French.	Mathematics.	Natural Philosophy.	Chemistry.
FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.
Stewart, D. E.	Stewart, D. E.	Stewart, D. E.	Stewart, D. E.	Stewart, D. E.	Geiss	Geiss
—	—	Thomas	Thomas	—	—	—
—	—	Geiss	Buckland	—	—	—
SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.
Geiss	Geiss	Stewart, W. R.	Geiss	Geiss	Stewart, D. E.	Downing, C. E.
Downing, C. E.	Thomas	Buckland	Stewart, W. R.	Stewart, W. R.	Downing, H. A.	—
Stewart, W. R.	Buckland	Downing, C. E.	Downing, H. A.	Downing, H. A.	—	—
Thomas	Stewart, W. R.	Innes	Downing, C. E.	Buckland	—	—
Buckland	Downing, C. E.	Downing, H. A.	—	Thomas	—	—
Downing, H. A.	Innes	—	—	Innes	—	—
Innes	Downing, H. A.	—	—	—	—	—

For the Examiners,

13 *September*, 1869.   M. H. IRVING, *M.A.*

TASMANIAN COUNCIL OF EDUCATION.

EXAMINATION for the Degree of ASSOCIATE OF ARTS.—September, 1869.

TABULALED RESULTS.

No.	NAME.	DATE OF BIRTH.	SCHOOL.	TEACHER.	English.	Latin.	Greek.	French.	Mathematics.	Natural Philosophy.	Chemistry.	TOTAL.	CLASS.
					1000	800	800	600	800	300	300		
1	Stewart, Douglas Edward .	21 Dec. 1853	Horton College, Ross	W. W. Fox, Esq., B.A.	770 c	590 c	565 c	464 c	468	184	—	3041	First.
2	Geiss, John William Henry	19 Oct. 1852	High School, Hobart Town	Rev. R. D. Powlett Harris, M.A.	741	541	511 c	377	394	224 c	207 c	2995	First.
3	Stewart, William Robert ..	13 July, 1852	Horton College, Ross	W. W. Fox, Esq., B.A.	676	474	489	374	392	—	—	2405	First.
4	Thomas, John Oliver	12 April, 1852	High School, Hobart Town	Rev. R. D. Powlett Harris, M.A.	671	498	518 c	413 c	212	—	—	2312	First.
5	Buckland, Charles Reibey.	25 Sept. 1852	Hutchins School	Rev. J. R. Buckland, B.A.	628	477	471	410 c	304	—	—	2290	First.
6	Downing, Henry Arundel.	26 Nov. 1852	High School, ditto	Rev. R. D. Powlett Harris, M.A.	596	406	340	355	344	170	—	2211	First.
7	Downing, Charles Ernest	5 Dec. 1850	Ditto	Ditto	727	443	426	338	n. p.	n. p.	180	2114	Second.
8	Innes, Sydney Evelyn	27 June, 1853	Ditto	Ditto	569	414	376	n. p.	166	—	—	1525	Third

NOTE.—*c.* passed with credit. *n.p.* not passed. — subject not taken up.

For the Examiners,

M. H. IRVING, *M.A.*

13 *September*, 1869.

TASMANIAN COUNCIL OF EDUCATION.

EXAMINATION FOR THE DEGREE OF ASSOCIATE OF ARTS.—SEPTEMBER, 1869.

Preliminary Examination.

MONDAY, 6TH SEPTEMBER. 9 A.M. to 1 P.M.

[*N.B.—The working of every arithmetic question must be sent up in full.*]

1. Multiply one hundred and twenty-three millions four hundred and fifty-six thousand seven hundred and eighty-nine by nine hundred and eighty-seven thousand six hundred and fifty-four. Write down the product in words as well as in figures.

2. Divide one billion ten thousand and ten millions one thousand and ten by five million three hundred and nine thousand five hundred and seven. Write down the remainder in words as well as in figures.

3. How many pounds of mutton at $4\frac{1}{4}d.$ can be bought for £102? How much more would 4972 pounds of beef at $6\frac{1}{2}d.$ cost?

4. A runner does a mile in 4 minutes 32 seconds. How many yards feet and inches does he traverse in each second, there being 1760 yards in a mile?

5. If a revenue of £69,480,000 is paid by a population of 28,756,824, calculate to the nearest farthing the amount paid on the average by each person.

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6. Go round the coast line of Europe from the Dardanelles to the North Cape, naming in succession the principal seas, gulfs, or bays, and the countries bordering on them.

7. Name the capitals of the following countries:—China, Hindostan, Ireland, La Plata, New Zealand, Persia, Peru, Portugal, Prussia, Queensland, South Australia, United States, and indicate briefly the geographical position of each country named.

8. Through what countries and in what general compass direction do the following rivers run:—Amazon, Danube, Elbe, Euphrates, Ganges, Nile, St. Lawrence, Zambesi?

9. Give the geographical position of these mountains:—Andes, Blue Mountains, Caucasus, Cheviots, Himalaya, Mount Cook, Pyrenees, Ural.

10. Where and what are the following:—Aden, Cairo, Canton, Greenland, Liverpool, Ontario, Paraguay, Shannon?

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11. Name in order, with the dates of the accession of each, the Sovereigns of England from 1700 A.D. till the present time.

12. Explain very briefly what events in English History are known as the Wars of the Roses, the Gunpowder Plot, the Great Revolution, and at what dates they severally occurred.

13. Name with dates, and a brief account of their causes and results, three battles fought between England and Scotland.

14. What do you know of the following persons, and what important connection had they with the History of England:—Strongbow, Isabella of France, Hampden?

15. With what events in English History and at what dates were the following places associated:—Evesham, Clarendon, Bosworth?

Preliminary Examination.

MONDAY, 6TH SEPTEMBER. 2 to 5 P.M.

1. Analyse carefully, indicating clearly the mutual relations of the sentences, the passage following :—

    If we look at the feudal polity as a scheme of civil freedom, it bears a noble countenance. To the feudal law it is owing that the very names of right and privilege were not swept away as in Asia by the desolating hand of power. The tyranny which on every favourable moment was breaking through barriers would have rioted without control, if, when the people were poor and disunited, the nobility had not been brave and free.— HALLAM.

2. Parse, according to Morell's scheme, every word in the following :—

    The presages of discovering land were now so numerous and promising that Columbus deemed them infallible.—ROBERTSON.

4. Give the meaning of the following, and explain any peculiarity of construction in them :—.
    (a) There's many a slip 'twixt the cup and the lip.
    (b) A few years are soon over and we shall meet again.

5. Correct the errors in the following, and give your reasons for the corrections :—
    (a) Whoever he selects, I will be content.
    (b) Morning or evening, certainly not midday, are the best time for study.

6. Into how many classes and on what principle has Morell divided English Irregular Verbs ? Write down the principal parts of three verbs from each class.

7. Whence did we get, and what is the meaning of, the prefixes in Ashore, Distracted, Foretell, Hemisphere: and the suffixes in Article, Friendship, Morning, Music ?

8. To the following simple sentence—The king loved his people—add (1) an adverbial sentence of manner, (2) an adversative co-ordinate sentence. What names will you give to the new sentence, and why ?

9. Enumerate with two examples of each the various classes of adjectives given by Morell. How would you parse the words *iron* and *then* in An iron door, The then queen.

10. Explain by examples why *what* and *as* are called compound relatives.

3. Passage for Dictation :—

    But, meanwhile the marine deities were incorruptible. It was not possible to starch the sea, and precisely as the stiffness fastened upon men it vanished from ships. What had once been a mere raft with rows of formal benches, pushed along by laborious flap of oars, and with infinite fluttering of flags and swelling of poops above, gradually began to lean more heavily into the deep water, to sustain a gloomy weight of guns, to draw back its spider-like feebleness of limb and open its bosom to the wind, and finally darkened down from all its painted vanities into the long low hull familiar with the overflying foam, that has no other pride but in its daily duty and victory ; while through all these changes it gained continually in grace, strength, audacity, and beauty, until at last it has reached such a pitch of all these that there is not, except the very loveliest creatures of the living world, anything in nature so absolutely notable, bewitching, and according to its means and measure heart-occupying, as a well-handled ship under sail on a stormy day.—RUSKIN.

Euclid and Arithmetic.

TUESDAY, 7TH SEPTEMBER. 9 A.M. to 1 P.M.

1. Construct a triangle, whose sides shall be equal to three given straight lines.
   Supply the condition omitted, and shew why it is necessary.

2. A straight line falls on two parallel straight lines, state and prove the three resultant equalities.

3. Apply to a given straight line a parallelogram, equal to a given triangle, and having one angle equal to a given rectilineal angle.

4. Prove that the diagonals of a square intersect at right angles.

5. Prove that if a straight line be divided into any two parts, the square of the whole line is equal to the squares of the two parts, together with twice the rectangle contained by them.

6. Prove that if a straight line be divided into two equal and also two unequal parts ; the squares of the two unequal parts are together double of the square of half the line and of the square of the line between the points of section.

7. If one circle touch another internally in any point, the straight line joining their centres passes through the point of contact. Prove this.

8. Prove that the diameter is the greatest straight line in a circle : and that of all other lines that nearer to the centre is greater than one more remote.

9. On a given straight line describe a segment of a circle which shall contain an angle equal to a given rectilineal angle.

10. Three points are given not in the same straight line, find a point equidistant from them.

11. Describe a circle about a given triangle.

12. In a given circle inscribe a regular hexagon.

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13. 5793 persons pay £6 7s. 9½d. apiece yearly during life, but in each year 847 die. How much money will be paid in five years?

14. Reduce 520 acres 3 roods 19 perches to the decimal of a square mile : and 3 quarters 25 pounds to that of a cwt.

15. Find to three places of decimals the square root of 941·635.

16. Calculate the difference between ⅛ of 3·4 of £1·125, and ⅕ of 3·6 of £6·789. State the result in pounds shillings and pence.

17. What do you mean by a pure circulator? State and prove the rule for reducing one to a vulgar fraction.

18. Explain what is meant by true discount. Find it for £579 due in 3½ years at 7½ per cent. simple interest.

English.

TUESDAY, 7TH SEPTEMBER. 2 to 5 P.M.

MORELL—Grammar and Analysis. GOLDSMITH—The Deserted Village.

1. Define these grammatical terms, a labial, a syllable, a noun, a conjunction, a sentence, an inflection.

2. Enumerate the various relations of the verb, classifying them under the five heads given by Morell.

3. Analyse the following—
      (a). 'Twas certain he could write and cypher too.
      (b). Ill fares the land, to hastening ills a prey,
          Where wealth accumulates, and men decay.
          Princes and lords may flourish, or may fade;
          A breath can make them, as a breath has made :
          But a bold peasantry, their country's pride,
          When once destroyed, can never be supplied.
      (c). Of all the thoughts of God, that are
          Borne inward unto souls afar
          Along the Psalmist's music deep,
          Now tell me if that any is
          For gift or grace surpassing this,
          'He giveth his beloved sleep.'

4. In the last extract there is a rhyme good to the eye but faulty to the ear. Point it out and explain why it is so.

5. Parse fully every italicised word in the following:—
      (a). Gave *just* what life required.
      (b). Brightened all the *green*.
      (c). *Verging* to decline, its splendours rise.
      (d). When the poor exiles fondly looked their *last*.

6. What is peculiar in the use of the italicised words in the following ?
      (a). The *hawthorn* bush.
      (b). As ocean sweeps the *laboured* mole away.
      (c). To *husband* out life's taper.
      (d). Where toil, *remitting*, lent its turn to play.

7. What faults are found in the following ?
      (a). The swain mistrustless of his smutted face.
      (b).   The hare
          Pants to the place from whence at first she flew.
      (c). The cooling brook, the grassy-vested green.
      (d). Where yon anchoring vessel spreads the sail.

8. Explain the meaning of the following. Name and if you can illustrate by one or two other examples the figure employed.
      (a). To spurn imploring famine from the gate.
      (b). Seats made for talking age.
      (c). And shouting Folly hails them from her shore.

9. In the following compounds explain clearly the grammatical relation which subsists between the former and the latter part, and give one compound similarly formed to each of them,
      Grass-grown, hollow-sounding, spendthrift, watch-dog.

10. Specify the meaning of the termination in each of the following and give another instance of its use—brighten, careless, downward, draught, early, hamlet, manliness, silken, sloth, terrible.

11. Give the etymology of bless, bower, charm, feat, joy, judge, note, nurse, pause, plaint, pomp, prey.

12. Explain fully the derivation and illustrate the formation of disdain, female, forlorn, fashion, peasant, pursue, redress, survey.

13. Write a brief sketch of the life and character of Alfred.

Algebra,

WEDNESDAY, 8TH SEPTEMBER, 9 A.M. to 1 P.M.

1. Four times b is deducted from five times a, and the remainder is divided by four times the sum of a and b; write down an algebraic expression for a quantity which multiplied by itself shall produce the quotient.

    Calculate the value of this expression when a is 8, and b is 1.

2. Add together $\dfrac{x + y}{7x^2y - xy^2}$, $\dfrac{y - x}{xy^2 + 7x^2y}$ and $\dfrac{15}{y^2 - 49x^2}$

3. Two places A and B are x miles apart; P starts from A and walks for p hours at the rate of a miles per hour; and Q starts from B one hour later and walks for two hours longer at the rate of b miles per hour. Find an expression for the distance between them when thus halted.

    Let $x = 120$, $p = 6$, $a = 3\frac{1}{2}$, $b = 4$.

4. Multiply $a^2 + b^2 + c^2 - ab - ac - bc$ by the sum of a, b, and c.

5. Divide $x^6 + 64y^6 + 2xy (x^4 - 16y^4)$ by $x^2 + 4y^2$.

    Arrange the quotient by descending powers of x.

6. Substitute a^4 for x in the expression $x^2 - a^2x - 12a^4$, and arrange the resulting expression in factors.

7. A clock is right at 9 A.M. on Monday. At 9 P.M. on Tuesday it is found to have gained p minutes. How many minutes will it at the same rate have gained by 9 A.M. on Friday?

8. Prove that $(a - b) (b - c) (c - a) = a^2 (c - b) + b^2 (a - c) + c^2 (b - a)$.

9. Reduce to its lowest terms $\dfrac{x^2 - 10x + 21}{x^3 - 46x - 21}$

10. Solve this equation $\dfrac{3x + 5}{7} - \dfrac{2x + 7}{3} + 10 - \dfrac{3x}{5} = 0$.

11. Find x y and z from the simultaneous equations

    $\dfrac{6y - 4x}{3z - 7} = 1$, $\dfrac{5z - x}{2y - 3z} = 1$, $\dfrac{y - 2z}{3y - 2x} = 1$.

12. A regiment is formed into a solid square and the number of men in each side counted. After 336 men had been dismissed, it was again formed into square and the number in each side found to be 6 less. Find the number present at first.

13. Find x and y from

    $\dfrac{x}{x - y} - \dfrac{x - y}{x + y} = 1$ and $2 + 3xy = 3x$.

14. Divide $6x^{-1} - 27y^{-2}$ by $4x^{-\frac{1}{3}} - 3y^{-\frac{2}{3}}$.

15. If $\dfrac{a}{b} = \dfrac{c}{d}$, prove that $\dfrac{a}{c} = \dfrac{a + b}{c + d} = \sqrt{\dfrac{a^2 + b^2}{c^2 + d^2}}$

16. What number of terms of the series 11, 9, 7, &c. will be equal in sum to 35?

17. Investigate a formula for the sum of a series in Geometrical Progression. Apply it to find the value of 7 terms of 36, 12, 4, $\dfrac{4}{3}$ &c.

18. How and why is the preceding formula modified in the case of an infinite series if the common ratio is less than unity. Apply this to calculate the value of ·1357357.

19. Reduce to its simplest form

    $$\dfrac{1}{\sqrt{10} - \sqrt{6}} + \dfrac{·5}{\sqrt{2·5} + \sqrt{1·5}}.$$

20. Prove that the number of combinations of n things taken $n - r$ together is equal to the number of them taken r together. What relation between the coefficients of the expansion of $(1 + x)^n$ depends upon this?

History and Geography.

1. What notices are there of the History of Britain prior to its invasion by Julius Cæsar? In what authors, and of about what dates, do these occur?

2. Explain the etymology of the following local names :—Kent, Bangor, Stonehenge, Britain. Give also the derivation and the meaning of the following :—Curfew, Domesday Book, Investiture, Witenagemot.

3. Give with dates a brief account of the six successive settlements of German invaders in Britain.

4. To what Kings of England, and for what cause, were the following names given :—Beauclerc, Confessor, Martyr, Plantagenet, Rufus, Unready? Give the dates of their accessions.

5. Trace the descent of Matilda, Queen of Henry I., from Egbert. Give the dates of accession of any monarchs in the direct line of the genealogy.

6. Give a brief account of the growth of the Norman power in France.

7. What was probably the population of England at the Conquest? How do you arrive at the estimate?

8. State what you know of the life of Robert, son of the Conqueror.

9. Give a brief account of the reign of Richard Cœur de Lion.

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1. Draw an outline map of Tasmania, marking these places :—Hobart Town, Launceston, Richmond, Ross, Campbell Town, Fingal, Perth, Falmouth, Deloraine : these capes,—South, North, Grim, Pillar, Portland, Sorell, Fluted, Eddystone : these lakes,—Crescent, St. Clair, Echo, and the Great Lake : Ringarooma Bay, Port Davey, Macquarie Harbour, Storm Bay : these mountains,—Ben Lomond, Table Mountain, Wyld's Crag, and the Frenchman's Cap : and the course of these rivers,—South Esk, Derwent, Gordon, and Mersey.

2. Of what shape is the Earth generally said to be? Give and explain a more accurate name for its form. Give the length of the polar and the equatorial diameter.

3. Explain briefly what you mean by the Latitude and the Longitude of a place. Give approximately the Latitude and Longitude of Hobart Town, London, Point de Galle, Cape Horn, Singapore, Canton.

5. Name some (not more than 8) of the principal towns which are seats of peculiar manufactures in Great Britain. Give the geographical position of each, and name the product for which it is celebrated.

6. Describe the course of these Rivers, and name the principal tributaries of each :—Danube, Mississippi, Murray, Ganges, Amazon.

7. Name the Political Divisions of British North America, and the chief town of each : giving the geographical position of the latter.

8. Where are the West Indies? Why were they so called? Name the principal islands, and the countries to which they severally belong, and draw a rough map to shew their relative positions.

9. Where and what are the following :—Afghanistan, Andaman, Bon, Breda, Brocken, Cadiz, Delagoa, Erie, Fife, Fiji, Gondar, Hawaii, Michigan, Obi, Race, Solway, Texas, Utah, Vosges, Zanzibar.

Latin.—I.

THURSDAY, 9TH SEPTEMBER. 9 to 1.

VIRGIL—Æneid, Book VI. LIVY, Book I.

In parsing a word, if a Noun *give case, number, gender, together with nominative and genitive singular; if a* Verb *give person, number, tense, mood, voice, together with the first person singular present and perfect indicative, the supine in -um, and the infinitive: wherever practicable explain the construction fully.*

1. Decline throughout the substantives currus, iter, mons, sacerdos; the adjectives alius, supplex; the numerals unus and tres; and the pronoun ille.

2. Write down throughout, perf. ind. of audeo, plup. subj. act. of consto, fut. ind. act. of eo, imperf. subj. act. of fero, imperat. pass. of fungor, pres. ind. act. of malo, imperat. of sum, fut. perf. ind. act. of venio.

3. Give the principal parts of ago, averto, dirimo, excutio, maneo, pando, pango, pello, posco, sæpio, texo, vello.

4. Translate literally—

Tum lituo in lævam manum translato, dextra in caput Numæ imposita, precatus ita est. 'Juppiter pater, si est fas hunc Numam Pompilium, cujus ego caput teneo, regem Romæ esse, uti tu signa nobis certa acclarassis inter eos fines, quos feci.' Tum peregit verbis auspicia, quæ mitti vellet. Quibus missis declaratus rex Numa de templo descendit.

Qui regno ita potitus urbem novam, conditam vi et armis, jure eam legibusque ac moribus de integro condere parat. Quibus cum inter bella assuescere videret non posse, quippe efferari militia animos, mitigandum ferocem populum armorum desuetudine ratus, Janum ad infimum Argiletum indicem pacis bellique fecit, apertus ut in armis esse civitatem, clausus pacatos circa omnes populos significaret.

5. In the foregoing in what cases and why are (a) lituo, (b) Romæ, (c) regno? Parse acclarassis and mitigandum.

6. Translate literally—

O tandem magnis pelagi defuncte periclis!
Sed terra graviora manent. In regna Lavinî
Dardanidæ venient; mitte hanc de pectore curam;
Sed non et venisse volent. Bella, horrida bella,
Et Thybrim multo spumantem sanguine cerno.
Non Simoïs tibi, nec Xanthus, nec Dorica castra
Defuerint: alius Latio jam partus Achilles,
Natus et ipse dea: nec Teucris addita Juno
Usquam aberit. Quum tu supplex in rebus egenis
Quas gentes Italum aut quas non oraveris urbes!

7. Parse the words italicized in the following:—Threïcia fretus *cithara* — *miserere* patris — *Phœbi* nondum patiens — *inaugurato* consecrabant — *aliquanto* ægrius tulit — aram inquit hic *dicatum iri* — e suis unum *sciscitatum* mittit — nigrantes *terga* juvencos.

8. Give with their meanings the words from which are derived alienigena, assiduus, auspicium, baculum, bruma, contio, documentum, ferrugineus, impune, inextricabilis, inolesco, solstitialis.

9. Give the Latin for the following:—

(a) He elected none among the patres that the order might be more despised.

(b) Collatinus says that there is no need of words.

(c) Let the elections for making a king be held as soon as possible.

(d) He thought it far the most important thing to perform the sacrifices.

10. Give a brief account of the Constitution of Servius Tullius.

11. Translate into idiomatic English—

Lucumoni contra, omnium heredi bonorum, cum divitiæ jam animos facerent, auxit ducta in matrimonium Tanaquil, summo loco nata, et quæ haud facile iis, in quibus nata erat, humiliora sineret ea, quæ innupsisset. Spernentibus Etruscis Lucumonem exule advena ortum, ferre indignitatem non potuit, oblitaque ingenitæ erga patriam caritatis, dummodo virum honoratum videret, consilium migrandi ab Tarquiniis cepit. Roma est ad id potissima

visa : in novo populo, ubi omnis repentina atque ex virtute nobilitas sit, futurum locum forti ac strenuo viro ; regnasse Tatium Sabinum ; arcessitum in regnum Numam a Curibus ; et Ancum Sabina matre ortum nobilemque una imagine Numæ esse. Facile persuadet ut cupido honorum, et cui Tarquinii materna tantum patria esset. Sublatis itaque rebus amigrant Romam. Ad Janiculum forte ventum erat. Ibi ei carpento sedenti cum uxore aquila, suspensis demissa leniter alis, pileum aufert ; superque carpentum cum magno clangore volitans, rursus, velut ministerio divinitus missa, capiti apte reponit ; inde sublimis abiit.

12. About how far from Rome and in what direction is each of the following situate ?—Alba, Capua, Collatia, Cumæ, Cures, Fidena, Ostia, Tarquinii, Tibur, Veii.

13. Translate into idiomatic English—

> Vidi et crudeles dantem Salmonea pœnas,
> Dum flammas Jovis et sonitus imitatur Olympi.
> Quatuor hic invectus equis et lampada quassans,
> Per Graium populos mediæque per Elidis urbem
> Ibat ovans, divumque sibi poscebat honorem,
> Demens ! qui nimbos et non imitabile fulmen
> Ære et cornipedum pulsu simularat equorum.
> At pater omnipotens densa inter nubila telum
> Contorsit ; non ille faces, nec fumea tædis
> Lumina ; præcipitemque immani turbine adegit.
> Nec non et Tityon, Terræ omniparentis alumnum,
> Cernere erat, per tota novem cui jugera corpus
> Porrigitur ; rostroque immanis vultur obunco
> Immortale jecur tondens, fecundaque pœnis
> Viscera, rimaturque epulis, habitatque sub alto
> Pectore ; nec fibris requies datur ulla renatis.

14. Translate into idiomatic English—

Attende enim paullisper cogitationemque sobrii hominis punctum temporis suscipe. Ego, qui sum illorum, ut ipse fateor, familiaris, ut a te arguor, socius, nego quidquam esse medium ; confiteor eos, nisi liberatores populi Romani conservatoresque rei publicæ sint, plus quam sicarios, plus quam homicidas, plus etiam quam parricidas esse, siquidem est atrocius patriæ parentem quam suum occidere. Tu, homo sapiens et considerate, quid dicis ? Si parricidas, cur honoris causa a te sunt et in hoc ordine et apud populum Romanum semper appellati ? cur M. Brutus, referente te legibus est solutus, si ab urbe plus quam decem dies abfuisset ? cur ludi Apollinares incredibili M. Bruti honore celebrati ? cur provinciæ Bruto et Cassio datæ ? cur quæstores additi ? cur legatorum numerus auctus ? Atque hæc acta per te. Non igitur homicidas. Sequitur, ut liberatores tuo judicio sint, quandoquidem tertium nihil potest esse.

Latin.—II.

THURSDAY, 9TH SEPTEMBER. 2 *to* 5 P.M.

HORACE—Odes, Books I. & II. GENERAL QUESTIONS.

1. How does Latin form (a) adjectives signifying full of, (b) frequentative verbs, (c) distributive numerals. Give examples.

2. Mention one or two irregular nouns of the 1st, of the 2nd, and of the 3rd declension. Explain what the irregularity is in each.

3. Translate and explain the following passages—

> (1.) Si potuit manes arcessere conjugis Orpheus.
> (2.) Ipsumque Æaciden genus armipotentis Achilli.
> (3.) Hoc animo agitavi te novacula cotem discissurum.
> (4.) Cum omnium sacellorum exaugurationes admitterent aves, in Termini fano non addixere.
> (5.) Licebit injecto ter pulvere curras.
> (6.) Quæ Venus quinta parte sui nectaris imbuit.
> (7.) Te bis Afro murice tinctæ vestiunt lanæ.
> (8.) Victorum nepotes rettulit inferias Jugurthæ.

4. Scan these lines and give the metrical name of each :—

    (1.) Bis patriæ cecidere manus. Quin protenus omnia.
    (2.) Solvitur acris hiems grata vice Veris et Favoni.
    (3.) Tu ne quæsieris, scire nefas, quem mihi, quem tibi.
    (4.) Vocatus atque non vocatus audit.
    (5.) Otium Divos rogat in patenti.
    (6.) Munera nec quidquam tibi prodest.

5. Translate—

    (a) Parcus Deorum cultor et infrequens
       Insanientis dum sapientiæ
         Consultus erro, nunc retrorsum
           Vela dare atque iterare cursus
       Cogor relictos : namque Diespiter,
       Igni corusco nubila dividens
         Plerumque, per purum tonantes
           Egit equos volucremque currum ;
       Quo bruta tellus et vaga flumina,
       Quo Styx et invisi horrida Tænari
         Sedes Atlanteusque finis
           Concutitur. Valet ima summis
       Mutare et insignem attenuat Deus
       Obscura promens ; hinc apicem rapax
         Fortuna cum stridore acuto
           Sustulit, hic posuisse gaudet.

    (b) Unde si Parcæ prohibent iniquæ,
       Dulce pellitis ovibus Galæsi
       Flumen et regnata petam Laconi
         Rura Phalanto.
       Ille terrarum mihi præter omnes
       Angulus ridet, ubi non Hymetto
       Mella decedunt viridique certat
         Bacca Venafro.
       Ver ubi longum tepidasque præbet
       Jupiter brumas, et amicus Aulon
       Fertili Baccho minimum Falernis
         Invidet uvis.
       Ille te mecum locus et beatæ
       Postulant arces ; ibi tu calentem
       Debita sparges lacrima favillam
         Vatis amici.

Note anything you think requires explanation in the foregoing.

6. Quote any allusions to contemporary events at Rome which seem to fix the date of publication of the Odes of Horace.

7. To whom and why does Horace give these epithets,—Erycina, Cynthius, Panthoïdes, Euius.

8. Briefly explain the phrases,—Attalicæ conditiones, sæva Pelopis domus, bimaris Corinthus, Babylonii numeri, Noricus ensis, venena Colcha.

9. Name any of the peculiar grammatical constructions or imitations of Greek Syntax occurring in your Horace.

10. Construct a scheme of the metre of the Alcaic stanza and quote a verse in illustration of it.

11. Translate into Latin Prose in the style of Livy—

One day a strange woman appeared before the King and offered him nine books to buy : and when he refused them she went away, and burnt three of the nine books, and brought back the remaining six and offered to sell them at the same price that she had asked for the nine : and when he laughed at her she went as before and burnt three more books, and came back and asked still the same price for the three that were left. Then the King, struck by her pertinacity, consulted his augurs what this might be : and they bad him by all means buy the three, and said he had done wrong not to buy the nine, for these were the books of the Sibyl and contained great secrets. So the books were kept underground in the Capitol in a stone chest, and two men were appointed to take charge of them, and consult them when the State was in danger.

12. Translate into Latin Hexameters—

> For thou must go o'er many a hill and plain
> Until to Sparta thou art come at last,
> And when the ancient city thou hast past
> A mountain shalt thou reach, that men now call
> Great Tænarus, that riseth like a wall
> 'Twixt plain and upland; therein shalt thou find
> The wide mouth of a cavern huge and blind,
> Wherein there never cometh any sun,
> Whose dreadful darkness all things living shun.

Greek.—I.

FRIDAY, 10th SEPTEMBER. 9 A.M. to 1 P.M.

XENOPHON—Anabasis, Book VI. HERODOTUS, Book III., c. 1—60.

N.B.—The principal parts of a verb are the 1st person singular of its present, future, and perfect active, of its perfect passive and 2nd aorist active. In parsing a noun give gender, number, case, and nominative and genitive singular; in parsing a verb, tense, mood, voice, and principal parts.

1. Decline the nouns βοῦς, ἡμέρα, πόλις, the adjectives ἥττων and μέγας, the participle δούς, and the pronoun οὗτος.

2. Write down these tenses throughout,—Pres. Ind. Act. of ἀδικέω (all forms), 1 Aor. Opt. Mid. of ἀποκρίνομαι, 2 Aor. Ind. Mid. of γίνομαι, 1 Aor. Opt. Act. of ἁρπάζω, Pres. Opt. Act. of εἰμί, 2 Aor. Subj. Act. of δίδωμι.

3. Write down the 1st person Singular of each of these tenses,—2 Perf. Ind. Act. of λανθάνω, 2 Aor. Ind. Act. of ἔχω, 2 Aor. Opt. Act. of αἱρέω, 1 Aor. Opt. Pass. of δέομαι, Fut. Ind. Mid. of πάσχω, Imp. Ind. Act. of εἶμι; and the principal parts of ἄγω, βάλλω, γιγνώσκω, ἐλαύνω, ἵστημι, λείπω, ὁράω, πλήσσω, ῥέω, σημαίνω, τρέπω.

4. Translate literally—

Ἀλλὰ χρὴ παρασκευασαμένους τὴν γνώμην πορεύεσθαι, ὡς νῦν ἢ εὐκλεῶς τελευτῆσαι ἔστιν, ἢ κάλλιστον ἔργον ἐργάσασθαι Ἕλληνας τοσούτους σώσαντας. Καὶ ὁ θεὸς ἴσως ἄγει οὕτως, ὃς τοὺς μεγαληγορήσαντας ὡς πλέον φρονοῦντας ταπεινῶσαι βούλεται, ἡμᾶς δὲ τοὺς ἀπὸ θεῶν ἀρχομένους ἐντιμοτέρους ἐκείνων καταστῆσαι. Ἀλλ' ἕπεσθαι χρὴ καὶ προσέχειν τὸν νοῦν, ὡς ἂν τὸ παραγγελλόμενον δύνησθε ποιεῖν.

5. In the foregoing why is (a) Ἕλληνας accusative, (b) ἐκείνων genitive, (c) δύνησθε subjunctive? Parse χρή, ταπεινῶσαι, καταστῆσαι, νοῦν.

6. Translate literally—

Οὗτος ὁ Φάνης, μεμφόμενός κού τι Ἀμάσι, ἐκδιδρήσκει πλοίῳ ἐξ Αἰγύπτου, βουλόμενος Καμβύσῃ ἐλθεῖν ἐς λόγους. οἷα δὲ ἐόντα αὐτὸν ἐν τοῖσι ἐπικούροισι λόγου οὐ σμικροῦ, ἐπιστάμενόν τε τὰ περὶ Αἴγυπτον ἀτρεκέστατα, μεταδιώκει ὁ Ἄμασις, σπουδὴν ποιεύμενος ἑλεῖν. μεταδιώκει δὲ, τῶν εὐνούχων τὸν πιστότατον ἀποστείλας τριήρεϊ κατ' αὐτόν.

7. In the foregoing why is πλοίῳ dative? λόγου genitive? εὐνούχων genitive? Parse οἷα, ἀτρεκέστατα, ἑλεῖν, ἀποστείλας.

8. Parse these words,—ἀνενειχθέντα, ἀξιοχρέῳ, ἐννενώκασι, ἐχρᾶτο, ἡμισέσιν, ἴοιμεν, ἵππεις, μνησθῇ, περικεχυμένων, τεύξεσθαι.

9. Give fully the meaning and the derivation of γνωσιμαχεῖν, ἐναλλάξ, ἰχθυοφάγοι, κρεουργηδόν, λαφυροπωλεῖν, ναυπηγήσιμος, πεντηκόντορος, πολιορκεῖν, σύνθημα, φαλακροῦσθαι.

10. Translate into idiomatic English—

Ταῦτα δέ μιν ποιεῦντα ἐδικαίωσε Κροῖσος ὁ Λυδὸς νουθετῆσαι τοιῖσδε τοῖσι ἔπεσι· "Ὦ βασιλεῦ, μὴ πάντα ἡλικίῃ καὶ θυμῷ ἐπίτρεπε· ἀλλ' ἴσχε καὶ καταλάμβανε σεωυτόν. ἀγαθόν τι, πρόνοον εἶναι· σοφὸν δὲ ἡ προμηθίη. σὺ δὲ κτείνεις μὲν ἄνδρας, σεωυτοῦ πολιήτας, ἐπ' οὐδεμιῇ αἰτίῃ ἀξιοχρέῳ ἑλών· κτείνεις δὲ παῖδας. ἢν δὲ πολλὰ τοιαῦτα ποιῇς, ὅρα ὅκως μή σευ

ἀποστήσονται Πέρσαι. ἐμοὶ δὲ πατὴρ σὸς Κῦρος ἐνετέλλετο πολλὰ κελεύων σὲ νουθετέειν, καὶ ὑποτίθεσθαι ὅ τι ἂν εὑρίσκω ἀγαθόν." Ὁ μὲν δὴ εὔνοιαν φαίνων συνεβούλευέ οἱ ταῦτα. ὁ δ' ἀμείβετο τοῖσδε· " Σὺ καὶ ἐμοὶ τολμᾷς συμβουλεύειν, ὃς χρηστῶς μὲν τὴν σεωυτοῦ πατρίδα ἐπετρόπευσας, εὖ δὲ τῷ πατρὶ τῷ ἐμῷ συνεβούλευσας, κελεύων αὐτὸν Ἀράξεα ποταμὸν διαβάντα ἰέναι ἐπὶ Μασσαγέτας, βουλομένων ἐκείνων διαβαίνειν ἐς τὴν ἡμετέρην ; καὶ ἀπὸ μὲν σεωυτὸν ὤλεσας, τῆς σεωυτοῦ πατρίδος κακῶς προστάς· ἀπὸ δὲ ὤλεσας Κῦρον, πειθόμενόν σοι. ἀλλ' οὔ τι χαίρων· ἐπεί τοι καὶ πάλαι ἐς σὲ προφάσιός τευ ἐδεόμην ἐπιλαβέσθαι."

11. Translate into idiomatic English—

Τὴν μὲν νύκτα οὕτω διήγαγον· ἅμα δὲ τῇ ἡμέρᾳ οἱ στρατηγοὶ εἰς τὸ ἐρυμνὸν χωρίον ἡγοῦντο· οἱ δὲ εἵποντο ἀναλαβόντες τὰ ὅπλα καὶ τὰ σκεύη. Πρὶν δὲ ἀρίστου ὥραν εἶναι, ἀπετάφρευσαν, ᾗ ἡ εἴσοδος ἦν εἰς τὸ χωρίον, καὶ ἀπεσταύρωσαν ἅπαν, καταλιπόντες τρεῖς πύλας. Καὶ πλοῖον ἐξ Ἡρακλείας ἧκεν ἄλφιτα ἄγον καὶ ἱερεῖα καὶ οἶνον. Πρωῒ δ' ἀναστὰς Ξενοφῶν ἐθύετο ἐπεξόδια· καὶ γίγνεται τὰ ἱερὰ ἐπὶ τοῦ πρώτου ἱερείου. Καὶ ἤδη τέλος ἐχόντων τῶν ἱερῶν, ὁρᾷ ἀετὸν αἴσιον ὁ μάντις Ἀρηξίων, Παρράσιος, καὶ ἡγεῖσθαι κελεύει τὸν Ξενοφῶντα. Καὶ διαβάντες τὴν τάφρον τὰ ὅπλα τίθενται, καὶ ἐκήρυξαν ἀριστήσαντας ἐξιέναι τοὺς στρατιώτας σὺν τοῖς ὅπλοις, τὸν δὲ ὄχλον καὶ τὰ ἀνδράποδα αὐτοῦ καταλιπεῖν.

12. Put into Greek in the style of Xenophon—

(a) You heard yesterday that it was impossible for us marching on foot to cross the rivers, and get safe to Greece.

(b) The barbarians will become bolder than ever now that they see you in want of necessaries.

(c) Of the soldiers some had javelins and targets, others had shields and swords.

(d) You shall not depart (strongest possible negative) before you have tasted of all the good things which you now see lying before you.

13. Translate—

ἀεὶ γὰρ ἔγωγε μέμνημαι, καὶ ἀρχομένου τοῦ πολέμου καὶ μέχρι οὗ ἐτελεύτησε, προφερόμενον ὑπὸ πολλῶν ὅτι τρὶς ἐννέα ἔτη δέοι γενέσθαι αὐτόν. ἐπεβίων δὲ διὰ παντὸς αὐτοῦ, αἰσθανόμενός τε τῇ ἡλικίᾳ, καὶ προσέχων τὴν γνώμην, ὅπως ἀκριβές τι εἴσομαι· καὶ ξυνέβη μοι φεύγειν τὴν ἐμαυτοῦ ἔτη εἴκοσι μετὰ τὴν ἐς Ἀμφίπολιν στρατηγίαν, καὶ γενομένῳ παρ' ἀμφοτέροις τοῖς πράγμασι, καὶ οὐχ ἧσσον τοῖς Πελοποννησίων διὰ τὴν φυγὴν, καθ' ἡσυχίαν τι αὐτῶν μᾶλλον αἰσθέσθαι.

𝕲𝖗𝖊𝖊𝖐.—II.

FRIDAY, 10th SEPTEMBER. 2 to 5 p.m.

Homer—Iliad VI. General Questions.

1. Translate—

Εὖ γὰρ ἐγὼ τόδε οἶδα κατὰ φρένα καὶ κατὰ θυμόν·
Ἔσσεται ἦμαρ ὅτ' ἄν ποτ' ὀλώλῃ Ἴλιος ἱρὴ
Καὶ Πρίαμος καὶ λαὸς ἐϋμμελίω Πριάμοιο.
Ἀλλ' οὔ μοι Τρώων τόσσον μέλει ἄλγος ὀπίσσω,
Οὔτ' αὐτῆς Ἑκάβης οὔτε Πριάμοιο ἄνακτος
Οὔτε κασιγνήτων, οἵ κεν πολέες τε καὶ ἐσθλοὶ
Ἐν κονίῃσι πέσοιεν ὑπ' ἀνδράσι δυσμενέεσσιν,
Ὅσσον σεῦ, ὅτε κέν τις Ἀχαιῶν χαλκοχιτώνων
Δακρυόεσσαν ἄγηται, ἐλεύθερον ἦμαρ ἀπούρας.
Καί κεν ἐν Ἄργει ἐοῦσα πρὸς ἄλλης ἱστὸν ὑφαίνοις,
Καί κεν ὕδωρ φορέοις Μεσσηΐδος ἢ Ὑπερείης
Πόλλ' ἀεκαζομένη, κρατερὴ δ' ἐπικείσετ' ἀνάγκη.
Καί ποτέ τις εἴπῃσι ἰδὼν κατὰ δάκρυ χέουσαν,
'Ἕκτορος ἥδε γυνὴ, ὃς ἀριστεύεσκε μάχεσθαι
Τρώων ἱπποδάμων, ὅτε Ἴλιον ἀμφεμάχοντο.'
Ὣς ποτέ τις ἐρέει· σοὶ δ' αὖ νέον ἔσσεται ἄλγος
Χήτεϊ τοιοῦδ' ἀνδρὸς, ἀμύνειν δούλιον ἦμαρ.
Ἀλλά με τεθνηῶτα χυτὴ κατὰ γαῖα καλύπτοι
Πρίν γ' ἔτι σῆς τε βοῆς σοῦ θ' ἑλκηθμοῖο πυθέσθαι.

2. Translate and explain fully these passages—

    (1.) τεθναίης, ὦ Προῖτ', κάκτανε Βελλεροφόντην.

    (2.) δίδου δ' ὅ γε θυγατέρα ἥν.

    3.) —— πάροιθε δὲ λάμπετο δουρὸς

      αἰχμὴ χαλκείη περὶ δὲ χρύσεος θέε πόρκης.

    (4.) —— ὁ δ' ἀγλαΐηφι πεποιθὼς

      ῥίμφα ἑ γοῦνα φερεῖ μετὰ ἤθεα καὶ νόμον ἵππων.

    (5.) λαβὼν ἐκ τοῦ ἱματίου ἑκατέρου κροκύδα ἀλείφει τῷ αἵματι λίθους ἕπτα.

    (6.) ἀλλὰ καὶ τότε ὕσθησαν αἱ Θῆβαι ψακάδι.

    (7.) ἀσθενὲς δὲ τὸ ὕδωρ τῆς κρήνης ἔλεγον εἶναι οἱ κατάσκοποι.

    (8.) κήρυγμα ἐποιήσατο, ὃς ἂν ἢ οἰκίοισι ὑποδέξηταί μιν ἢ προσδιαλέχθῃ, ζημίαν τοῦτον ὀφείλειν, ὅσην δὴ εἴπας.

3. Parse these words,—ἀγλαΐηφι, δίδου, ἔκτα, ἐλέλιχθεν, εὐρρεῖος, λελαθέσθαι, πεφυγμένον, σεῖο.

4. Give the meaning and the derivation of αἴθοψ, βουπλῆγι, ἑλκεσίπεπλος, ἵππουρις, λυκόοργος, πότνια, φύλοπις, χρυσήνιος.

5. Translate and explain the constructions in ἀτυζομένω πεδίοιο, βοὴν ἀγαθὸς, χαρείη φρένα μήτηρ, οὐ μὴ προδώσεις με.

6. Draw a rough map of Greece, shewing the divisions and the principal Towns in each.

7. Where and what are Corcyra, Crete, Lycia, Lydia, Samos, Serbonis, Thebes, Xanthus ?

8. Prove by examples that a Greek present tense generally contains *more* than the simple root of the verb.

9. Explain what the Digamma was. Point out any lines in the extract from Homer in which the metre makes it probable that it was used.

10. State which of the following are right, and which wrong. Correct the latter and give the precise English equivalent of each :—

    1. ἐὰν ἔχω δώσω.   3. εἰ ἔχοιμι ἂν, δοίην ἄν.

    2. ἐὰν ἔσχον, ἂν ἔδωκα.   4. εἰ ἔσχε, ἔδωκε.

11. Name a few of the principal differences between Homer's inflection of verbs and those you find in Xenophon.

12. What is the government of comparative adjectives in Greek ? Construct an example.

13. What do you mean by Euphony ? Give three or four instances in which a desire for Euphony has affected the form of Greek words.

14. Give the meanings of these roots in Greek—λεγ- τεμ- ὀπ- πραγ-. Give English words derived from each.

Mathematics.

SATURDAY, 11th SEPTEMBER. 9 a.m. *to* 1 p.m.

Euclid—Books VI. & XI. Trigonometry.

1. The vertical angle of a triangle is bisected by a line which cuts the base. State and prove the proportion which follows.

2. Prove that equal parallelograms, which have one angle of the one equal to one angle of the other, have their sides about the equal angles reciprocally proportional.

    State and prove the converse of the foregoing.

3. If two triangles which have two sides of the one proportional to two sides of the other be joined at one angle so as to have the homologous sides parallel; prove that the remaining sides will be in one straight line.

4. Explain clearly what is meant by saying that similar triangles are in the duplicate ratio of their homologous sides. If the homologous sides of two similar triangles be in the ratio of 2 : 1, and the lesser triangle contains 24 square inches, how many will the larger contain ?

5. If a perpendicular be drawn from the right angle to the base of a right-angled triangle, state all the proportions which follow.
   If the sides contain severally a and $3a$ linear units, find the number of such units in each segment of the base and in the perpendicular.

6. Define a prism, a pyramid, a cone, a cylinder, a cube, an icosahedron.

7. From a given point above a plane, draw a straight line perpendicular to the plane.

8. The plane angles containing a solid angle are together less than four right angles. Prove this.

9. Taking the nearest value of π to 4 places of decimals, find the length in yards, feet, and inches of an arc of 15° 27′ 39″ to a radius of one mile.

10. Investigate a formula for sin (A ± B) in terms of the sines and cosines of the simple angles.

11. Assuming these and corresponding expressions for cos (A ± B), calculate sin 18° and cos 18°.

12. Prove these equalities—

   (a) $\quad \tan 2A - \tan A = \dfrac{\sin A}{2 \cos^3 A - \cos A} = \dfrac{2 \sin A}{\cos 3 A + \cos A}$.

   (b) $\quad \sin 2 A = \dfrac{1 - \tan^2 (45° - A)}{1 + \tan^2 (45 - A)} = \cos (30° - 2a) - \cos (30° + 2 A)$.

13. If A, B, and C be the three angles of a triangle, prove that sin (A + B) sin (B + C) = sin A . sin C.

14. Define a logarithm. Prove that the logarithm of a quotient is equal to the logarithm of the dividend diminished by the logarithm of the divisor.

15. Find the sine of an angle of a triangle in terms of the sides.

16. Let the sides of a triangle be 35, 40, and 45 : find the three angles by logarithms.

17. Given $a = 50$, $b = 100$, $C = 50°$. Solve the triangle.

18. Investigate formulæ for the radii of the circle inscribed in, and that circumscribed about a triangle. Compare their lengths if the sides of the triangle be 4, 5, 7.

French.

SATURDAY, 10TH SEPTEMBER. 2 to 5 P.M.

VOLTAIRE—Charles XII., Books 5 & 6. RACINE—Athalie.

[*Questions 1—6 must be answered satisfactorily.*]

1. Give the meaning and the feminine of auteur, blanc, bref, instituteur, las, menteur, mou, net, sec, serviteur.

2. Write down throughout the imperfect indicative of haïr, the conditional of voir, the present subjunctive of envoyer, the imperfect subjunctive of devoir, the preterite definite of être, the present indicative interrogative and negative of perdre.

3. Write down the present and the past participle, the 1st person singular present indicative, and the 2nd person imperative of these verbs,—conclure, dire, jeter, moudre, naître, prendre, suivre, venir.

4. Translate literally—
   Le premier ministre changea bientôt d'avis. Le roi ne pouvait que négocier, et le czar pouvait donner de l'argent : il en donna, et ce fut de celui même de Charles XII. qu'il se

servit; la caisse militaire prise à Pultava fournit de nouvelles armes contre le vaincu. Il ne fut alors plus question de faire la guerre aux Russes. Le crédit du czar fut tout-puissant à la Porte : elle accorda à son envoyé des honneurs dont les ministres moscovites n'avaient point encore joui à Constantinople.

5. Put into French—

(1.) The boy comes home from school every Saturday.

(2.) If you are hungry take a piece of bread.

(3.) Remember this, that I shall expect you here to-morrow.

(4.) Lessons are longer this year than they were last year.

6. Give the English of these words,—appuyer, aube, blocus, bouc, brancard, dérober, écarlate, orage, parvis, terrassé.

7. Give the French for these nouns and prefix to each the definite article,—book, fall, flesh, hatred, health, heat, salt, treason, witness, worm.

8. How would you express in prose these phrases from the Athalie ?—

(1.) J'ai nom Eliacin. (2.) Leur nombre assemblé près de vous est redoublé.
(3.) Pourriez-vous douter de l'accepter ? (4.) Je me sens prêt de lui donner ma vie.

9. Translate and explain—

(1.) Ta hautesse sait que j'ai été élevé à me servir d'une hache pour fendre du bois, et non d'une épée pour commander tes armées.

(2.) Les uns barricadaient les fenêtres, les autres enfonçaient des solives derrière les portes en forme d'arcs-boutants.

(3.) Les viellards remplis de l'indignation la plus vive s'en retournèrent en criant, " Ah ! la tête de fer, puisqu'il veut périr, qu'il périsse ! "

10. Translate into French—

(1.) His brother was dragged from the seraglio to become sultan, without there being one single drop of blood shed.

(2.) In order to converse with the French Ambassador the King, rather than speak French, had an interpreter brought.

(3.) A solemn oath binds them all to this son of David who is to be revealed to them to-day.

11. From what Latin words are derived—

Gendre, impôt, réduit, soulever ?

Give one or two other words to illustrate the formation of each.

12. Translate—

C'était pendant l'horreur d'une profonde nuit ;
Ma mère Jézabel devant moi s'est montrée,
Comme au jour de sa mort, pompeusement parée :
Ses malheurs n'avaient point abattu sa fierté ;
Même elle avait encor cet éclat emprunté
Dont elle eut soin de peindre et d'orner son visage,
Pour réparer des ans l'irréparable outrage :
" Tremble," m'a-t-elle dit, " fille digne de moi ;
Le cruel Dieu des Juifs l'emporte aussi sur toi.
Je te plains de tomber dans ses mains redoutables,
Ma fille." En achevant ces mots épouvantables,
Son ombre vers mon lit a paru se baisser,
Et moi, je lui tendais les mains pour l'embrasser ;
Mais je n'ai plus trouvé qu'un horrible mélange
D'os et de chair meurtris et traînés dans la fange,
Des lambeaux pleins de sang, et des membres affreux
Que des chiens dévorants se disputaient entre eux.

13. Translate—

Le kan des Tartares et le bacha, qui voulaient prendre le roi en vie, honteux de perdre du monde, et d'occuper une armée entière contre soixante personnes, jugèrent à propos de mettre le feu à la maison pour obliger le roi de se rendre ; ils firent lancer sur le toit, contre les portes et contre les fenêtres, des flèches entortillées de mèches allumées : la maison fut

en flammes et un moment ; le toit tout embrasé était près de fondre sur les Suédois. Le roi donna tranquillement ses ordres pour éteindre le feu : trouvant un petit baril plein de liqueur, il prend le baril lui-même, et, aidé de deux Suédois, il le jetta à l'endroit où le feu était le plus violent ; il se trouva que ce baril était rempli d'eau-de-vie : mais la précipitation, inséparable d'un tel embarras, empêcha d'y penser. L'embrasement redoubla avec plus de rage : l'appartement du roi était consumé ; la grande salle où les Suédois se tenaient était remplie d'une fumée affreuse, mêlée de tourbillons de feu qui entraient par les portes des appartements voisins ; la moitié du toit était abîmée dans la maison même ; l'autre tombait en dehors en éclatant dans les flammes.

14. Translate—

Un siècle environ après César les barques des Bretons consistaient en carènes d'osier recouvertes de cuir. Les habitants de la Bretagne étaient moins ignorants dans l'art de la guerre que dans celui de la navigation. Protégés par de petits boucliers, armés de longues épées, qu'ils maniaient avec adresse, mais inutiles dès qu'on les attaquait corps à corps, ils ne combattaient jamais en masses : ils s'avançaient par faibles détachements qui s'appuyaient réciproquement. Leur force principale résidait dans l'infanterie ; ils employaient cependant un grand nombre de chars de guerre armés de faux. Ils commençaient par les faire courir rapidement de tous côtés en lançant des traits, cherchant ainsi à jeter le désordre dans les rangs ennemis par la seule frayeur que causaient l'impétuosité des chevaux et le bruit des roues ; puis ils rentraient dans les intervalles de leur cavalerie, sautaient à terre et combattaient à pied mélés aux cavaliers ; pendant ce temps les conducteurs se retiraient peu à peu du théâtre de l'action et se plaçaient avec les chars de manière à recueillir à besoin les combattants.

15. Translate into French—

We set out about three o'clock in the afternoon, our intention being to reach to-day only an inn about eighteen miles from Melbourne on the road to Sydney. For the first time was I about to set foot in an Australian inn, and my companion amused himself by giving me fearful accounts of the establishment in which we were to pass the night. So, what was not my surprise in finding a very tolerable inn, where they gave us two capital rooms and set before us a good dinner. Among other things, they gave us lobster ! lobster prepared at Bourdeaux : and if I speak of this 'tis but to make you see that you might find all sorts of provisions in these bush inns.

But we paid to match ! The price of everything was then fabulous.

Natural Philosophy.

MONDAY, 13th SEPTEMBER. 9 to Noon.

1. At what angle must two forces of 9 and 12 act in order that their resultant may be 15? Find the sine of the angle which each force makes with it.

2. A cord passes over two pulleys, ten feet apart and in the same horizontal line. To each end of the cord is attached a weight of fourteen pounds. From its middle point is suspended a weight of ten pounds. How far will this point be drawn vertically downwards in the position of equilibrium ?

3. Prove that the resultant of two concurrent parallel forces is concurrent with the components and equal to their sum : that the resultant of two non-concurrent parallel forces is equal to their difference and concurrent with the greater : and that, in all cases, the moments of the components about a point in their resultants are equal.

4. A uniform pole 60 pounds in weight and 20 feet long rests with its lower end in the angle of a wall and the ground. Its upper end is drawn up 60° above the horizontal position by a rope passing through a pulley in the wall 30 feet vertically above the lower end. Find the tension of the rope.

5. From one angle of a uniform square whose side is four feet is cut another square whose side is two feet. Find the distance of the centre of gravity of the remaining figure from the opposite angle.

6. Explain the action of the Wheel and the Compound Axle. Calculate its mechanical advantage.

Ex.: Radius of wheel 30 inches, radii of axle 3 and 5 inches, P 12 pounds, find W.

7. Calculate the horizontal force which will keep at rest a weight of 40 pounds on a plane inclined at an angle of 45° to the horizon.

8. A body is let fall from rest. Another body is let fall a seconds later. Calculate a formula for the distance between them after the first has been falling x seconds, taking $g = 32$.
 Ex. : Let $x = 6$, $a = 3$.

9. A cubic foot of fir weighs 40 pounds. Floating in water with one face horizontal, how much of the vertical sides will be above water ?

10. Make a rough sketch of a Bramah's Press, and explain clearly the mode and the principle of its action.

11. What is the change in the atmospheric pressure if the barometer falls from 30 to 29·5 inches ?

12. If a cubic inch of one metal weighs 10·36 ozs., and a cubic foot of another weighs 960 pounds avoirdupois, calculate the ratio of their specific gravities.

Inorganic Chemistry.

MONDAY, 13TH SEPTEMBER. 2 *to* 5 P.M.

1. Distinguish between a mechanical and chemical combination ; and explain, with illustration, the law of "multiple proportion."

2. What is meant by *convection, conduction, radiation,* and *reflexion* of heat ? Shew how water can be made to boil in a tube which contains ice, and explain the reason.

3. Define heat of liquidity and heat of gaseity, and describe experiments to shew the latter in steam.

4. Explain fully what is meant by a chemical equivalent. Give those of oxygen, nitrogen, sulphuric acid, and muriatic acid, and interpret the symbols—
$$HO ; HO_2 ; NO_3 ; SO_4 ; C_aO, CO_2 ; \& C_4H_3O_4.$$

5. Cold condenses liquids : why then does ice form at the surface of a pond ? Can ice be formed in any other way than by the abstraction of heat ?

6. Describe experiments to illustrate the chemical properties of—
  (1.) Hydrogen.
  (2.) Chlorine.
  (3.) Hydrochloric acid.

7. Describe the construction and use of—
  (1.) The Davey lamp.
  (2.) The blow-pipe.

8. What constitutes the illuminating power of a burning substance ? In the constituents of coal-gas, which are valuable, and by what means are the valueless expelled ?

9. Explain the philosophy of—
  (1.) A soap-bubble.
  (2.) A burning candle.

10. What is the chemical composition of a diamond, petroleum, kelp, kerosene, and common salt ?

11. Distinguish between organic and inorganic chemistry, and explain the use of the knowledge of chemical science in the farmer.

TASMANIAN COUNCIL OF EDUCATION.

Hobart Town, 9th April, 1868.

EXAMINATION FOR THE DEGREE OF ASSOCIATE OF ARTS, 1869.

THE Council of Education have directed the publication of the following Scheme of Examination for the Degree of Associate of Arts for the year 1869.

The Conditions upon which the Degree is granted, and Honours and Prizes are awarded, are also published for general information.

By Order of the Council,

GEORGE RICHARDSON, *Secretary to the Council.*

SKETCH of the Examination for the Degree of ASSOCIATE OF ARTS *for the Year* 1869.

ENGLISH.—The Candidate will be examined in *Goldsmith's Deserted Village,* with Questions on the Etymology and Grammatical construction of the Language ; in History of England, *Student's Hume, Books I. and II. ;* and will be required to write a short original Composition, or a Report founded upon some abstract of facts furnished to him. He will also be examined in Physical, Commercial, and Political Geography. Books recommended : Poetical Reading Book with Aids for Grammatical Analysis, &c., by Morell and Ihne, (2s. 6d., Gordon); Morell's Grammar and Analysis with the Exercises, (3s. 6d., Constable) ; Smith's Student's Hume, (7s. 6d., Murray) ; Cornwell's School Geography, (3s. 6d., Simpkin & Co.)

LATIN.—Virgil, *Æneid, Book VI.,* Horace, *Odes, Books I. and II.;* Livy, *Book I.* Questions will also be given on the Language, and the historical and geographical allusions. A passage for translation from some other Latin author ; and passages of English for translation into Latin Prose and Verse.

GREEK.—Xenophon, *Anabasis, Book VI. ;* Homer, *Iliad, Book VI. ;* Herodotus, *Book III.,* Chapters 1 to 60 inclusive. Questions on the Language, and the historical and geographical allusions. A passage for translation from some other Greek author.

FRENCH.—Voltaire, *Charles XII., Books V. and VI.;* Racine, *Athalie.* Questions on the Language, and the historical and geographical allusions; a passage from some other French author for translation into English, and from some English author into French.

GERMAN.—Schiller, *Maria Stuart.* Questions on the Language, and the historical and geographical allusions; a passage from some other German author for translation into English, and from an English author into German.

ITALIAN.—Silvio Pellico, *Le Mie Prigioni,* with questions on the Language, and the grammatical construction; a passage from some other Italian author for translation into English, and from an English author into Italian.

PURE MATHEMATICS.—Euclid, *Books I. II. III. IV.,* Arithmetic, and Algebra. Candidates for Honours will be required to satisfy the Examiners in Euclid, *Book VI. and Book XI. to the 21st proposition inclusive,* Plane Trigonometry, and the use of Logarithms.

NATURAL PHILOSOPHY.—Newth's First Book of Natural Philosophy.

CHEMISTRY.—Inorganic Chemistry. Wilson's Chemistry, (3s., Chambers' Educational Course.)

ZOOLOGY AND BOTANY.—Elementary questions will be set on the description and classification of animals, their habits and geographical distribution; and on the mercantile and industrial uses of animal products. Also, the description and classification of plants, their uses, and geographical distribution. Plants, and parts of plants, will be given for description. Text Books: Milne Edwards's Zoology, 7s. 6d., (Renshaw) and Lindley's Elements of Botany, 12s., (Bradbury).

GEOLOGY.—Page's Advanced Text Book of Geology, 5s., (Blackwood).

DRAWING.—Drawing from the Flat, from Models, and in Perspective. A fair degree of skill in freehand Drawing will be required in order that a Student may pass in this section.

SCALE OF MARKS.

	Full Marks obtainable.
English	1000
Latin	800
Greek	800
French, German, or Italian	600
Pure Mathematics	800
Elementary Principles of Hydrostatics and Mechanics	300
Chemistry	300
Zoology and Botany	300
Geology	300
Drawing	300

	Marks.
Standard for First Class	2150
Standard for Second Class	1750
Standard for Third Class	1350

PRELIMINARY EXAMINATION FOR THE DEGREE OF ASSOCIATE OF ARTS.

Previously to the Examination for the Degree of Associate of Arts, every Candidate will be required to satisfy the Examiners in—

1. Reading aloud a passage from some English prose author.
2. Writing from dictation.
3. The Analysis and Parsing of a passage from some standard English author.
4. The first four Rules of Arithmetic, Simple and Compound.
5. Geography. Under this head a competent knowledge will be required of the chief ranges of mountains, the principal rivers, the principal towns, and the coast-line of one or more of the countries in the following list:—England, Scotland, Ireland, Europe, Asia, Africa, North America, South America, Australasia.
6. The outlines of English History since the Conquest; that is to say, the succession of Sovereigns, the chief events, and some account of the leading men in each reign.

EXAMINATION FOR THE DEGREE OF ASSOCIATE OF ARTS.

The examination for those Students who have satisfactorily passed the preliminary examination will comprise the subjects mentioned in the following ten sections, in four of which at least, Latin being one, the Candidate must satisfy the Examiners :—

1. English.
2. Latin.
3. Greek.
4. French, German, or Italian.
5. Pure Mathematics.

6. The Elementary Principles of Hydrostatics and Mechanics.
7. The Elements of Chemistry.
8. Zoology and Botany.
9. Drawing and Architecture.
10. Geology.

PRIZES.

1. The Council's Gold Medal, of the value of Ten Pounds, will be awarded to the Senior Associate, provided he be placed by the Examiners in the First Class of Associate of Arts.

2. Books to the value of Ten Pounds will be awarded as the First Prize in Sections 1, 2, 3, 4, and 5, to the Candidate who most distinguishes himself in each of those subjects, provided he be placed by the Examiners in the First Class of the Associates of Arts.

3. Books to the value of Five Pounds will be awarded as the Second Prize for each of the above-named Subjects, at the discretion of the Examiners.

4. Prizes of the value of Five Pounds each will, at the discretion of the Examiners, be awarded to the Candidates who most distinguish themselves in Sections 6, 7, 8, 9, and 10, provided their names appear in the Class List of those recommended for the Degree.