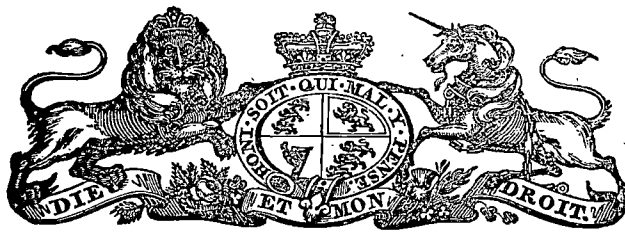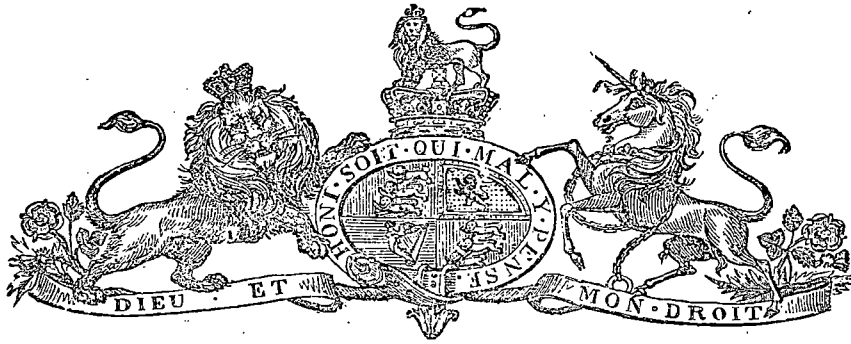1871.

TASMANIA.

HOUSE OF ASSEMBLY.

DEGREE OF ASSOCIATE OF ARTS.

REPORT FOR 1871.

Laid upon the Table by the Colonial Treasurer, and ordered by the House to be printed, November 8, 1871.

TASMANIAN COUNCIL OF EDUCATION.

DEGREE OF ASSOCIATE OF ARTS.—SEPTEMBER, 1871.

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.

GEORGE WILSON WATERHOUSE, Pupil of the Horton College, Ross. Awarded the Council's Gold Medal as the Senior Associate of the year, First Prize of Books of the value of £10 for Mathematics, Prize of Books of the value of £7 10s. for Latin, Second Prize of Books of the value of £5 each for English, Greek, and French.

CHARLES CALEB WILLIAMSON, Pupil of the Church Grammar School, Launceston. Awarded the Council's First Prize of Books of the value of £10 each for English and French, and Prize of Books of the value of £7 10s. for Latin.

CHARLES MAYNE MAXWELL, Pupil of the Hutchins School, Hobart Town.

FREDERICK SCOTT ALDRED, Pupil of the High School, Hobart Town. Awarded the Council's First Prize of Books of the value of £10 for Greek.

CHARLES HENRY CRESWELL, Pupil of the High School, Hobart Town.

CHARLES WILLIAM BUTLER, Pupil of the Hutchins School, Hobart Town. Awarded the Council's First Prize of Books of the value of £5 for Natural Philosophy, and Second Prize of Books of the value of £5 for Mathematics.

THOMAS JAMES CRISP, Pupil of the High School, Hobart Town.

HENRY MORRISS, Pupil of the Hutchins School, Hobart Town.

SECOND CLASS.

HERBERT JAMES GIBLIN, Pupil of the High School, Hobart Town.

LESLIE JOHN BEDFORD, Pupil of the Hutchins School, Hobart Town.

THIRD CLASS.

ALFRED JAMES BISDEE, Pupil of the Hutchins School, Hobart Town.

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, 18*th September,* 1871.

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 bring up the following Report.

Thirteen Candidates presented themselves for the Preliminary Examination on Monday, September 4th.

The Reading aloud was this year conducted in private, the President alone being present with the Examiner. The bulk of the Candidates acquitted themselves creditably, Waterhouse and Giblin very well. All read with a fair amount of intelligence,—most, so far as the words were concerned, correctly ; but one or two shewed a tendency towards slovenly pronunciation, especially in slurring over the termination *ing*, and the *h* between words closely connected ; as, for instance, *with 'im* instead of *with him.*

The passage from Ruskin given for dictation was well transcribed : out of the whole thirteen papers there were but five misspelt words.

Some of the Analysis and the Parsing was excellent, and almost all satisfactory,—none so bad as to justify rejection.

Of the six simple Arithmetic sums set, two Candidates did only the minimum of three correctly, five had four right, four sent up five without mistake, while two only, Aldred and Giblin, managed to present six correct answers. Some of the mistakes were undoubtedly due to the fact that Candidates will perversely persevere in doing their sums on scraps of paper and then copying them off, instead of at once working them on the paper they intend to send up. In easy sums like those of the Preliminary there should be no blundering.

The History and the Geography were very good. In Geography, Maxwell was only one short of obtaining full marks. Of course there were slips, and one or two that were very strange ; as, for instance, one Candidate made Cape Pillar the southern point of Tasmania, and another Cape Horn the southern point of Africa ; but such errors were few and far between.

The whole of the thirteen Candidates having satisfied the requirements of the Preliminary Examination, presented themselves on Tuesday, the 5th September, for the Ordinary Examination, which was continued during five days, with two papers of 3½ hours morning and afternoon, the subjects being English, Latin, Greek, French, and Mathematics, presented by all Candidates alike ; and on Monday, the 11th, was held the examination in Natural Philosophy and in Drawing, which were taken up by a portion only of the Candidates.

The reports on the answering in the several subjects are as follow :—

I. ENGLISH, INCLUDING HISTORY AND GEOGRAPHY.—All of the Candidates passed, three—Williamson, Waterhouse, and Aldred—with credit. The general average of marks, 655 out of 1000, is unusually high for so large a number of Candidates, being 155 more than is required for passing. All the work was well done, the only point of general weakness being the original composition ; for, though most of these were in fair enough English, they lacked order and method, which seems to argue a want of practice in such work. And here it may be noted, that there were found in the written answers of every Candidate singular instances of misspelling, which perhaps might have been corrected had there been more time for revision, but which with plenty of practice in writing would scarcely have occurred at all. The preparation of the work prescribed in English History and Geography alike was excellent.

II. LATIN.—One Candidate failed, and of the remainder three—Waterhouse, Williamson, and Aldred—passed with credit. The general average of those who passed was high—486 out of a possible 800. The translation from English into Latin, and also that into English from a Latin author not previously read, were much better than they have usually been ; the answers to the grammatical questions were very fair : the translations from the books prescribed shewed that they had been well studied, but these might have been improved by a little more practice in written, as well as in *vivâ voce,* construing. For the first time in these Examinations there has occurred, in this subject, an exact tie. After the most careful perusal of the papers bearing the mottoes Ars and Lux, the total of the marks awarded to them was the same. The recommendation of the Examiner therefore is, that the amount of the First and of the Second Prize be added together and divided into two equal First Prizes, to be awarded to Waterhouse and Williamson.

III. GREEK.—One Candidate failed ; of the rest, no fewer than six—Aldred, Waterhouse, Creswell, Crisp, Williamson, and Maxwell—passed with credit : Aldred especially distinguished himself. The general average nearly equalled that attained in Latin, being 474. The translations from Xenophon were very good, those from the Medea less commendable, shewing in most cases rather a want of critical accuracy. However, to compensate for this, all the allusions in the play

and the difficult passages set had been, by most, carefully got up. The weak point was the formation of words, and the translation at sight of a passage from Thucydides; still the general result was so good that it is hardly fair to find fault.

IV. FRENCH.—Three Candidates failed, doing very badly in grammar. Of the remainder, three—Williamson, Waterhouse, and Maxwell—obtained credit, and the general average of the 10 who passed is 399, or only one mark short of the number required for passing with credit. Williamson's papers were admirable. The only question in which, as a rule, all failed was one bearing on the derivation of French words from Latin, for none seemed to have laid hold of the general principles which govern the changes of Latin words into their modern French form. The translations from the prescribed books and that of a passage at sight were generally creditable; but none, save Williamson and Waterhouse, translated well from English into French.

V. MATHEMATICS.—None fell short of the standard for passing: two—Waterhouse and Butler—attained that for passing with credit. In Arithmetic, Butler and Morris did really well; in Algebra, Waterhouse and Butler very fairly; in Euclid, Waterhouse and Creswell answered creditably; but in the Trigonometry, Waterhouse alone showed mastery over the subject. His superiority here gave him a great lead in the Mathematical Class List, and the number of marks he obtained has been only once exceeded,—by Hogg in 1864. The great fault in the papers generally was the want of that precision and accuracy which ought to characterise all mathematical work. Fewer questions done without the slightest slip would earn higher marks. Still the general average for so large a number of Candidates cannot be called unsatisfactory, being 317 out of a possible 800.

VI. NATURAL PHILOSOPHY was presented by four only of the Candidates, one of whom could scarcely have expected to pass; of the other three, Butler alone showed real grasp and power, and his work was very creditable.

VII. DRAWING was presented by two Candidates only, one of whom—Creswell—passed. His drawing from the flat was very good, but his drawing from the model and his problems in perspective were so far inferior that he could not possibly obtain credit.

On adding together the marks obtained in the several subjects, it appeared that of the thirteen Candidates two had failed to obtain the Degree; that one had reached the standard for Third Class, two that for a Second, and that no less than eight had got beyond the number of marks required for a First Class; and accordingly on the evening of Monday, 11th September, the following Class List was published :—

	Marks.
First Class.—Waterhouse	3303
Williamson	2761
Maxwell	2725
Aldred	2720
Creswell	2670
Butler	2542
Crisp	2289
Morriss	2209
Second Class.—Giblin	2119
Bedford	1820
Third Class.—Bisdee	1459

Such a Class List speaks for itself, but a comparison with former years brings out its excellence more strongly. It is as follows :—

YEAR.	Total No. of Candidates.	Rejected at Preliminary Examination.	Admitted to Examination.	Passed for A.A.	First Class.	Second Class.	Third Class.	Highest obtained.	Average of all who passed.
1860	12	3	9	4	3	1	0	2247	2132
1861	12	2	10	8	2	2	4	2722	2013
1862	10	2	8	4	0	1	3	2028	1788
1863	6	1	5	3	0	3	0	2003	1921
1864	6	0	6	6	2	2	2	3295	2228
1865	15	1	14	14	6	2	6	2955	2028
1866	7	0	7	7	2	2	3	2836	1932
1867	10	1	9	9	4	3	2	2530	2095
1868	5	0	5	5	3	0	2	2999	2205
1869	10	1	9	8	6	1	1	3041	2362
1870	8	2	6	5	4	0	1	2354	2117
1871	13	0	13	11	8	2	1	3303	2430
TOTAL..	114	13	91	84	40	19	25	2637*	2095*

* Average of previous years.

From the foregoing Table it will be seen—

1st. That the average of First Classes, 8 out of 11, or 73 per cent., is far greater than the average hitherto obtained, 32 out of 73, about 44 per cent.

2nd. That the general average of marks obtained by the Candidates who passed—viz. 2430—exceeds that of previous years by 345. And

3rd. That the total, 3303, obtained by George Wilson Waterhouse, the Senior Associate, but junior Candidate, of the year, exceeds the average of all past Senior Associates by upwards of 650 marks, and is slightly above the number attained by Hogg in 1864, hitherto supposed unapproachable.

It is gratifying to note that of the eight First Classes of the present year no fewer than 6 have attained the standard which the Council has fixed for 1872.

That so many should have done so well, proves that Teachers and Pupils have alike been doing their best to obtain the honours and the prizes which the Council's Scheme of Examination holds forth, that the experience of past years has not been forgotten, and that the warnings and fault-findings which have so often been seen in the Examiners' Reports have not been fruitless.

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

The Council's Gold Medal .... G. W. Waterhouse.
First Prize for English .... C. C. Williamson.
First Prizes for Latin .... { G. W. Waterhouse. C. C. Williamson.
First Prize for Greek .... F. S. Aldred.
First Prize for French.................... C. C. Williamson.
First Prize for Mathematics .... G. W. Waterhouse.

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

First Prize for Natural Philosophy .... C. W. Butler.
Second Prize for English .... G. W. Waterhouse.
Second Prize for Greek .... G. W. Waterhouse.
Second Prize for French.................. G. W. Waterhouse.
Second Prize for Mathematics .... C. W. Butler.

The Examiners have to acknowledge the great assistance afforded by the Secretary to the Council, without which indeed it would have been impossible to have completed the work of the Examination within so short a time ; and have also to acknowledge the promptness and care with which the papers were printed by the Government Printer.

Full Tables of the Results will be found appended to the Report.

For the Examiners,

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

Hobart Town, 15th September, 1871.

TASMANIAN COUNCIL OF EDUCATION.

EXAMINATION FOR THE DEGREE OF ASSOCIATE OF ARTS—September, 1871.

GENERAL CLASS LIST.

FIRST CLASS.

NAME.	MARKS.	AGE.		PRIZES.	SCHOOL.	TEACHER.
		yrs.	ms.			
Waterhouse, G. W.	3303	15	6	Gold Medal. Prize for Latin. 1st Prize Mathematics. 2nd Prize English. 2nd Prize Greek. 2nd Prize French.	Horton College, Ross.	W. W. Fox, Esq., B.A.
Williamson, C. C.	2761	16	10	1st Prize English. Prize for Latin. 1st Prize French.	Church Grammar School, Launceston.	Rev. W. A. Brooke, M.A.
Maxwell, C. M.	2725	17	2	—	Hutchins School, Hobart Town.	Rev. J. R. Buckland, B.A.
Aldred, F. S.	2720	16	5	1st Prize Greek.	High School, Hobart Town.	Rev. R. D. Poulett Harris, M.A.
Creswell, C. H.	2670	17	4	—	ditto.	ditto.
Butler, C. W.	2542	17	0	1st Prize Natural Philosophy. 2nd Prize Mathematics.	Hutchins School, Hobart Town.	Rev. J. R. Buckland, B.A.
Crisp, T. J.	2289	15	10	—	High School, Hobart Town.	Rev. R. D. Poulett Harris, M.A.
Morriss, Henry	2209	17	7	—	Hutchins School, Hobart Town.	Rev. J. R. Buckland, B.A.

SECOND CLASS.

NAME.	MARKS.	AGE.		PRIZES.	SCHOOL.	TEACHER.
Giblin, H. J.	2119	17	2	—	High School, Hobart Town.	Rev. R. D. Poulett Harris, M.A.
Bedford, L. J.	1820	17	6	—	Hutchins School, Hobart Town.	Rev. J. R. Buckland, B.A.

THIRD CLASS.

NAME.	MARKS.	AGE.		PRIZES.	SCHOOL.	TEACHER.
Bisdee, A. J.	1459	16	9	—	Hutchins School, Hobart Town.	Rev. J. R. Buckland, B.A.

For the Examiners,

11th September, 1871.

M. H. IRVING, M.A.

SPECIAL CLASS LIST.

English.	Latin.	Greek.	French.	Mathematics.	Natural Philosophy.	Drawing.
FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.
Williamson. Waterhouse. Aldred.	Waterhouse. } Williamson. } Aldred.	Aldred. Waterhouse. Creswell. Crisp. Williamson. Maxwell.	Williamson. Waterhouse. Maxwell.	Waterhouse. Butler.	Butler.	None.
SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.
Maxwell. Giblin. Creswell. Butler. Crisp. Morriss. Bisdee. Bedford.	Maxwell. Creswell. Crisp. Morriss. Butler. Giblin. Bedford. Bisdee.	Morriss. Giblin. Bedford. Butler. Bisdee.	Aldred. Butler. Giblin. Creswell } Morriss } Crisp.	Creswell. Maxwell. Aldred. Morriss. Crisp. Giblin. Bisdee. Williamson. Bedford.	Waterhouse. Maxwell.	Creswell.

For the Examiners,

11th September, 1871.

M. H. IRVING, M.A.

TASMANIAN COUNCIL OF EDUCATION.

EXAMINATION for the Degree of ASSOCIATE OF ARTS.—September, 1871.

TABULATED RESULTS.

NO.	NAMES.	DATE OF BIRTH.	SCHOOL.	TEACHER.	English.	Latin.	Greek.	French.	Mathematics.	Natural Philosophy.	Drawing.	TOTAL.	CLASS.
				[Maximum No. of Marks..	1000.	800.	800.	600.	800.	300.	300.		
1	George Wilson Waterhouse	4 April, 1856	Horton College, Ross	W. W. Fox, Esq., B.A.	816 c	644 c	635 c	479 c	563 c	166	—	3303	First.
2	Charles Caleb Williamson	18 November, 1854	Church Grammar School, Launceston	Rev. W. A. Brooke, M.A.	838 c	644 c	531 c	533 c	215	—	n.p.	2761	First.
3	Charles Mayne Maxwell	24 July, 1854	Hutchins School, Hobart Town	Rev. J. R. Buckland, B.A.	704	513	515 c	408 c	429	156	—	2725	First.
4	Frederick Scott Aldred	29 April, 1855	High School, ditto	Rev. R. D. Poulett Harris, M.A.	753 c	600 c	649 c	392	326	—	—	2720	First.
5	Charles Henry Creswell	4 May, 1854	Ditto	Ditto	687	511	554 c	359	434	—	125	2670	First.
6	Charles William Butler	18 September, 1854	Hutchins School, Hobart Town	Rev. J. R. Buckland, B.A.	668	434	355	377	483 c	228 c	—	2542	First.
7	Thomas James Crisp	4 November, 1855	High School, ditto	Rev. R. D. Poulett Harris, M.A.	661	484	540 c	357	247	—	—	2289	First.
8	Henry Morriss	1 March, 1854	Hutchins School, ditto	Rev. J. R. Buckland, B.A.	558	481	488	359	323	—	—	2209	First.
9	Herbert James Giblin	30 July, 1854	High School, ditto	Rev. R. D. Poulett Harris, M.A.	690	422	408	363	236	—	—	2119	Second.
10	Leslie John Bedford	5 March, 1854	Hutchins School, ditto	Rev. J. R. Buckland, B.A.	501	408	368	362	181	—	—	1820	Second.
11	Alfred James Bisdee	25 December, 1854	Ditto	Ditto	520	351	353	n.p.	235	n.p.	—	1459	Third.

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

For the Examiners,

M. H. IRVING, M.A.

Hobart Town, 11th September, 1871.

8

TASMANIAN COUNCIL OF EDUCATION.

EXAMINATION FOR THE DEGREE OF ASSOCIATE OF ARTS.—SEPTEMBER, 1871.

PRELIMINARY EXAMINATION.

Arithmetic. Geography. History.

Four Hours.

The working of every Arithmetic question must be sent up in full. Three questions must be done correctly.

1. Multiply fifty-seven millions four hundred and nine thousand six hundred and twelve by 93576. Write down the product in words.

2. Divide 2,000,000,000,000 by 2567803. Write down the last remainder in words.

3. If the equator be 24,000 miles long, how many inches does a point on the equator revolve in a second?

4. Multiply £17 18s. 9d. by 3657.

5. Sound travels 1130 feet in a second. How many miles off is a cannon if the flash is seen twenty-four seconds before the report is heard?

6. One clock gains three seconds, and another loses four seconds, in twenty-four hours. If set together at noon on 1st Jan. 1871, how many minutes and seconds were they apart at noon on 29th June, 1871?

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7. Name the chief mountain ranges in Europe, and briefly indicate their position.

8. Name in order the countries through which a traveller would pass, and the chief river mouths he would cross, in a journey round the south coast of Asia from Aden to the Corea.

9. Name the southern points of England, Asia, Hindostan, Africa, Greece, and Tasmania.

10. Name in order from east to west the six southern counties of England and a chief town in each.

11. On what river, and in what country or district, are the following towns situated:—Lisbon, Liverpool, Lyons, New Orleans, Quebec, Strasbourg?

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12. Give the date of the accession of every King of England called Henry.

13. State, with dates, how the following persons are known in connexion with the History of England:—Sir Walter Raleigh, Sir William Wallace, Sir Robert Walpole, Sir Robert Peel.

14. What events in the History of England, and at about what dates, were associated with these places:—Bothwell Bridge, Dunbar, Lewes, Marston Moor?

15. To what reigns and what dates would you refer these events:—The first use of artillery in battle by Englishmen, the first printing of books in England, the plantation of Ulster, and the Peninsular War?

16. Give a brief account of the impeachment of Warren Hastings, the Battle of Bunker's Hill, the Crimean War, the trial of the seven Bishops.

PRELIMINARY EXAMINATION.

English.

1. Analyse the following passage fully and carefully, indicating clearly the relation of the several sentences to one another:—

> What in me is dark,
> Illumine; what is low, raise and support;
> That to the highth of this great argument
> I may assert Eternal Providence,
> And justify the ways of God to man.—MILTON.

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

> The great duty which lies upon every man is to act his part to perfection.—ADDISON.

Passage for Dictation.

3. It is only by the habit of representing faithfully all things that we can truly learn what is beautiful and what is not. The ugliest objects contain some element of beauty; and in all it is an element peculiar to themselves, which cannot be separated from their ugliness, but must either be enjoyed together with it, or not at all. The more a painter accepts nature as he finds it, the more unexpected beauty he discovers in what he at first despised; but let him once arrogate the right of rejection, and he will gradually contract his circle of enjoyments, until what he supposed to be nobleness of selection ends in narrowness of perception. Dwelling perpetually upon one class of ideas, his art becomes at once monstrous and morbid; till at last he cannot faithfully represent even what he chooses to retain: his discrimination contracts into darkness, and his fastidiousness fades into fatuity.—RUSKIN.

The following questions did not form part of the Preliminary Examination.

4. Point out clearly the errors of Grammar in the following:—

> (1.) Thou great first Cause, least understood,
> Who all my sense confined.—POPE.

> (2.) I could a tale unfold whose lightest word
> Should harrow up thy heart.—SHAKSPERE.

> (3.) Avoid such games which require long attendance.—J. TAYLOR.

> (4.)   Him I accuse
> The city gates by this hath entered.—SHAKSPERE.

> (5.) Can England spare from her service such men as him?—BROUGHAM.

5. In how many different ways can the word *that* be employed in English? Construct a short clause or sentence to exemplify each.

6. Explain the meaning of the prefixes in associate, atheist, eclipse, enrage, paraphrase, symphony: and of the suffixes in calamity, chivalry, fearless, gloomy, monstrous, torrid. Give one other instance of the employment of each.

7. Name four of what Morell calls compound adjectives, and explain the composition of each.

8. Write down the comparison of six words irregularly compared in English.

9. Give Morell's Table of Pronouns with one example of each class.

10. Give the precise name for each of the italicized sentences in the following:—

> (a) I know not *how he did it.*
> (b) *Whither I go* ye cannot come.
> (c) Instruct me, *for thou knowest.*
> (d) Hope never comes, *that comes to all.*

11. Name with their meanings and their uses the auxiliary verbs employed in English.

12. What is the meaning of the following English words:—aloud, bough, dew, hail, hear, so, throw, rain, were, you? Write down with its meaning a word pronounced like each but differently spelt.

11

English.

Three Hours and a half.

COMPOSITION. MORELL—Grammar and Analysis. MILTON—Paradise Lost, Book I.

1. Write a brief account of any public building you know.

2. Analyse fully—All these sources of energy can therefore be traced back to the action of the sun *either now or in ages long past*, and all this energy has been conveyed to the earth by the undulating motion of that extremely rare medium to which we give the name of luminiferous ether.

State exactly what kind of phrase you consider the words in italics to be, and why.

3. Give the meaning and the etymology of every word of foreign origin occurring in the foregoing.

4. Give Morell's Table of Conjunctions with one example of each class.

5. Analyse—

Too well I see and rue the dire event,
That with sad overthrow, and foul defeat,
Hath lost us Heaven, and all this mighty host
In horrible destruction laid thus low,
As far as Gods and heavenly essences
Can perish ; for the mind and spirit remains
Invincible, and vigour soon returns,
Though all our glory extinct, and happy state
Here swallowed up in endless misery.

6. Distinguish in the following words the stem and the affix, and give the meaning of each :—
Beatific, besmear, bondage, bossy, disdain, forbid, foresight, golden, manacle, repair, utmost, witness.

7. Point out and explain anything peculiar or faulty in the grammar of these extracts :—
(a) Is this the seat that we must change for heaven ?
(b) How changed from him who didst outshine
Myriads, though bright.
(c) To be weak is miserable, doing or suffering.
(d) Fallen such a pernicious height.
(e) The thunder perhaps hath spent his shafts.
(f) To their great general's voice they soon obeyed.

8. Explain fully the allusions in the following, and, if you can, refer to the context :—
(1.) Briareus or Typhon.
(2.) The potent rod of Amram's son.
(3.) A leper once he lost, but gained a king.
(4.) Whose orb through optic glass the Tuscan artist views.

9. Where are the places mentioned in the following ?—
(a) Dropt like a falling star on Lemnos.
(b) Not Babylon or great Alcairo.
(c) The race that fought at Thebes or Ilium.
(d) Or on the Delphian cliff or in Dodona.
(e) Above the Aonian Mount.
(f) Jousted in Trebizond.
Briefly indicate the allusions.

10. Derive and illustrate the formation of affair, aught, deify, double, envy, join, obey, own, righteous, which.

11. Give the meaning and the etymology of abyss, adamantine, architrave, conclave, disastrous, emperor, empyreal, horizontal, joust, night-foundered, pygmy, scandal.

12. Quote from your Milton two instances of each of the following :—(a) Comparisons. (b) Use of metaphorical language. (c) Latin constructions. (d) Words used with a different accent from that which they now have, (e) Or with a meaning other than their present one.

N.B.—No instance quoted in the paper is to be given.

History and Geography.

Three Hours and a half.

1. Trace the descent from Henry VII. of Queen Elizabeth, Mary Queen of Scots, Lady Jane Grey, and Darnley. On what grounds was Mary's claim to the crown better than, and in what respect inferior to, that of Lady Jane Grey?

2. Give some account of the Court of High Commission, Escheats, Monopolies, the Statute of the Six Articles.

3. Give a brief account with dates of Babington, Cabot, Empson, More, Simnel, Tyndal.

4. Give a brief sketch of Edward VI.'s reign.

5. Narrate briefly the rise and the downfall of Essex.

6. Give a full account of the " Invincible Armada."

7. Tell all you know about the battles of Bosworth, Flodden, Pavia, Pinkie, St. Quentin, Zutphen.

8. " Thus the King made profit upon his subjects for the war, and upon his enemies for the peace." Explain.

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9. Explain why Geography is divided into three branches. What are these,—and why have they received their respective names?

10. Give a brief account of France, its physical features, climate, productions, and manufactures. Illustrate by a rough outline map, marking thereon its chief towns, rivers, and mountains.

11. " The commerce of England is far greater than that of any other nation ancient or modern." Why is this? What are the principal import and export trades of Great Britain, and with what countries?

12. Where are the following? Explain the meaning of their names as given in your Geography. Brazil, Brussels, Cornwall, Constantinople, Florida, Himaleh, Lincoln, Maryland, Norwich, Tigris.

13. Draw an outline of the coast of Australia. Mark the chief rivers, bays, capes, and seaport towns.

14. Name the chief exports of Hindostan. Name and indicate the position of its principal ports.

15. What are the following, and where chiefly found—banyan, beaver, cocoa, condor, geyser, mahogany, ourang utan, pampa, tea, walrus?

16. What and where are Annapolis, Aragon, Balkh, Coblentz, Drave, Godavery, Grindelwald, Hecla, Hedjaz, Jungfrau, Konieh, Manilla, Monte Rotondo, Naples, Onega, Paramatta, Potosi, Sunda, Tralee, Utah?

Latin.—I.

Three Hours and a half.

LIVY—Book II. GRAMMAR. COMPOSITION.

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. Translate literally—

Forte ibi tum seges farris dicitur fuisse matura messi. Quem campi fructum quia religiosum erat consumere, desectam cum stramento segetem magna vis hominum simul immissa corbibus fudere in Tiberim tenui fluentem aqua, ut mediis caloribus solet. Ita in vadis hæsitantis frumenti acervos sedisse illitos limo : insulam inde paulatim, et aliis, quæ fert temere flumen, eodem invectis, factam. Postea credo additas moles, manuque adjutum, ut tam eminens area firmaque templis quoque ac porticibus sustinendis esset.

2. Decline acer, is, jus, miles.

3. Compare æger, benevolus, magnus, malus, prope, similis.

4. Give the principal parts of curro, erumpo, exuo, fugo, fundo, pello, possideo, vivo.

5. Write down plup. ind. act. of ago, fut. ind. act. of egero, imp. subj. of fio, imperative of obliviscor, perf. ind. act. of sentio, plup. subj. act. of fero, pres. subj. of utor, pres. subj. act. of volo.

6. Parse assuesse, decresset, discussurus, messi, nocentium, pacis, rem, vinculo.

7. Construct or quote phrases to illustrate the following :—A double direct question, a frequentative verb, the use of the gerundive, a sentence of purpose, an ablative of price, a dativus commodi, an accusative of nearer definition, an objective genitive.

8. Derive fully and give the meanings of collega, deinceps, illecebræ, mansuetus, mollis, paludatus, prætexta, Scævola, stipendium, sublicius, tergiversor, vicæpotæ.

9. Give the precise meaning of the termination in auctoritas, fallax, gratia, sacramentum, secessio, toties. Under what form does each appear in English?

10. Translate, explain, and refer to the context—(1) Eo nisi corporibus armisque cuneo viam erupere. (2) In summa ædificabat Velia. (3) De publico est elatus. (4) Omni acto triumpho depositus triumphus clarior fuit. (5) Signum inde factum et inscriptum, ex Cassia familia datum. (6) Præsultatorem sibi displicuisse. (7) Laxior annona rediit. (8) Stabant deligati ad palum nobilissimi juvenes.

11. Translate into idiomatic English—

Hos agmine venientes T. Herminius legatus conspicatus, interque eos insignem veste armisque Mamilium noscitans, tanto vi majore, quam paulo ante magister equitum, cum hostium duce prœlium iniit, ut et uno ictu transfixum per latus occiderit Mamilium, et ipse inter spoliandum corpus hostis veruto percussus, cum victor in castra esset relatus, inter primam curationem expirarit. Tum ad equites dictator advolat, obtestans, ut fesso jam pedite descendant ex equis et pugnam capessant. Dicto paruere : desiliunt ex equis, provolant in primum, et pro antesignanis parmas objiciunt. Recipit extemplo animum pedestris acies, postquam juventutis proceres æquato genere pugnæ secum partem periculi sustinentes vidit. Tum demum impulsi Latini, perculsaque inclinavit acies. Equiti admoti equi, ut persequi hostem posset. Secuta et pedestris acies. Ibi nihil nec divinæ nec humanæ opis dictator prætermittens ædem Castori vovisse fertur, ac pronuntiasse militi præmia, qui primus, qui secundus castra hostium intrasset. Tantusque ardor fuit, ut eodem impetu, quo fuderant hostem, Romani castra caperent.

12. Translate into Latin—

Once on a time when all the parts in man did not as now agree together, but each member had its own plan and its own speech, the other parts were indignant that by their care, toil, and ministry everything was provided for the belly ; which idle in the midst of all did nought but enjoy the pleasures given it. So they agreed that the hands should bear no food to the mouth, nor the mouth accept it if given, nor the teeth chew it. In this temper, while desiring to tame the belly by hunger, the members themselves and the whole body came to utter leanness (tabes). So was it plain, that the duty of the belly also was not small : that it is not nourished more than nourishing, giving back to every part of the body from the food it digests (conficere) the blood whereby we live and are strong.

13. Translate—

Ubi hostes viderunt, ea quæ diu longoque spatio refici non posse sperassent, paucorum dierum opere et labore ita refecta, ut nullus perfidiæ neque eruptioni locus esset, neque quidquam omnino relinqueretur, quo aut vi militibus, aut igni operibus nocere possent : eodemque exemplo sentiunt totam urbem, qua sit aditus a terra, muro turribusque circumiri posse, sic, ut ipsis consistendi in suis munitionibus locus non esset, quum pœne inædificata in muris ab exercitu nostro mœnia viderentur, ac tela manu conjicerentur ; suorumque tormentorum usum, quibus ipsi magna speravissent, spatio propinquitatis interire ; parique conditione bellandi ex muro et turribus data, virtute se nostris adæquare non posse intelligunt, ad deditionem recurrunt.

Latin.—II.

OVID—Fasti, Book I. HORACE—Odes, Books III. & IV.

1. Translate—

Sumpsi animum, gratesque deo non territus egi,
  Verbaque sum spectans pauca locutus humum :
Dic, age, frigoribus quare novus incipit annus,
  Qui melius per ver incipiendus erat?
Omnia tunc florent, tunc est nova temporis ætas,
  Et nova de gravido palmite gemma tumet,
Et modo formatis operitur frondibus arbos,
  Prodit et in summum seminis herba solum,
Et tepidum volucres concentibus aëra mulcent,
  Ludit et in pratis luxuriatque pecus.
Tum blandi soles, ignotaque prodit hirundo,
  Et luteum celsa sub trabe figit opus ;
Tum patitur cultus ager et renovatur aratro ;
  Hæc anni novitas jure vocanda fuit.
Quæsieram multis : non multis ille moratus
  Contulit in versus sic sua verba duos :
Bruma novi prima est veterisque novissima solis ;
  Principium capiunt Phœbus et annus idem.

2. Translate—

(a) Paullum sepultæ distat inertiæ
  Celata virtus.   Non ego te meis
    Chartis inornatum silebo,
      Totve tuos patiar labores
Impune, Lolli, carpere lividas
Obliviones.   Est animus tibi
  Rerumque prudens et secundis
    Temporibus dubiisque rectus ;
Vindex avaræ fraudis et abstinens.
Ducentis ad se cuncta pecuniæ,
  Consulque non unius anni,
    Sed quoties bonus atque fidus
Judex honestum prætulit utili,
Rejecit alto dona nocentium
  Vultu, per obstantes catervas
    Explicuit sua victor arma.
Non possidentem multa vocaveris
Recte beatum : rectius occupat
  Nomen beati, qui Deorum
    Muneribus sapienter uti
Duramque callet pauperiem pati
Pejusque leto flagitium timet,
  Non ille pro caris amicis
    Aut patria timidus perire.

Or, (b) O nata mecum consule Manlio,
  Seu tu querelas sive geris jocos
    Seu rixam et insanos amores
      Seu facilem, pia testa, somnum ;
Quocunque lectum nomine Massicum
Servas, moveri digna bono die,
  Descende Corvino jubente
    Promere languidiora vina.
Non ille, quamquam Socraticis madet
Sermonibus, te negleget horridus :
  Narratur et prisci Catonis
    Sæpe mero caluisse virtus.
Tu lene tormentum ingenio admoves
Plerumque duro ; tu sapientium
  Curas et arcanum jocoso
    Consilium retegis Lyæo ;
Tu spem reducis mentibus anxiis,
Viresque et addis cornua pauperi
  Post te neque iratos trementi
    Regum apices neque militum arma.
Te Liber, et, si læta aderit, Venus,
Segnesque nodum solvere Gratiæ,
  Vivæque producent lucernæ,
    Dum rediens fugat astra Phœbus.

3. Translate into Latin Verse—

Pelides I, Thetis' renowned son,
Whom valour gave a glorious name to own,
Who foes so oft with conquering arms laid low,
And thousands many put to flight alone.
But my great fame is from great Hector slain,
Who often put-to-rout (debilito) the Argive powers ;
He, killed by me avenging, paid the due :
Then by my sword down-fell the Trojan-towers (Pergama).

4. Give the meaning and the derivation of anceps, auspicium, baculum, carica, omen, stella, sublimis, trabeatus.

5. Translate and explain—(1) Africa victorem de se vocat. (2) Dicta quoque est Latium terra latente Deo. (3) E quibus hæc populum spectat at illa Larem. (4) Ille nefastus erit per quem tria verba silentur. (5) Placat equo Persis radiis Hyperiona cinctum. (6) Qua fert sublimes alta Moneta gradus. (7) Sic petitur cœlum non ut ferat Ossan Olympus. (8.) Tradiderat famulas jam tibi Rhenus aquas.

6. What derivations does Ovid give for Agonalia, augurium, hostia, victima?

7. Give the meaning and the derivation of adorea, ales, elementa, immolo, probrosus, testa, vectigal.

8. Translate and explain—(1) Auguris Argivi domus ob lucrum demersa exitio. (2) Anciliorum et nominis et togæ oblitus. (3) Ex quo destituit Deos mercede pacta Laomedon. (4) Docte sermones utriusque linguæ. (5) Ixion Tityosque vultu risit invito. (6) Laurea donandus Apollinari. (7) Memphin carentem Sithoniæ nive (8) Raro antecedentem scelestum deseruit pede poena claudo.

9. Write down an example and give the scansion of the Sapphic Stanza.

10. Explain the grammar of (a) flumen Metaurum, (b) utinam præstes, (c) legis expertes Latinæ, (d) multi Lydia nominis, (e) madidis subjeci sulfura venis, (f) mihi castæque damnatum Minervæ.

11. Where and what were Baiæ, Hæmus, Liris, Mænalus, Numantia, Rhodope, Tanais, Venafrum?

12. Give a brief account of Hypermnestra, Ilia, Pirithous, Regulus, Stesichorus, Tullus.

13. Mention any Greek words adopted by Horace or Ovid.

14. Explain and illustrate the principles involved in these derivations—(a) Tibicen, tibicinis, from tibia and cano, (b) nuncupo, nuncupare, from nomen and capio.

Greek.—I.

Three Hours and a half.

XENOPHON—Anabasis, Book I.   GRAMMAR.

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. Translate literally—

Ἐπύαξα δὲ, ἡ Συεννέσιος γυνὴ, προτέρα Κύρου πέντε ἡμέραις εἰς Ταρσοὺς ἀφίκετο· ἐν δὲ τῇ ὑπερβολῇ τῶν ὀρῶν τῶν εἰς τὸ πεδίον δύο λόχοι τοῦ Μένωνος στρατεύματος ἀπώλοντο. Οἱ μὲν ἔφασαν ἁρπάζοντάς τι κατακοπῆναι ὑπὸ τῶν Κιλίκων, οἱ δὲ ὑπολειφθέντας, καὶ οὐ δυναμένους εὑρεῖν τὸ ἄλλο στράτευμα οὐδὲ τὰς ὁδοὺς, εἶτα πλανωμένους ἀπολέσθαι· ἦσαν δ᾽ οὖν οὗτοι ἑκατὸν ὁπλῖται. Οἱ δ᾽ ἄλλοι ἐπεὶ ἧκον, τήν τε πόλιν τοὺς Ταρσοὺς διήρπασαν, διὰ τὸν ὄλεθρον τῶν συστρατιωτῶν ὀργιζόμενοι, καὶ τὰ βασίλεια τὰ ἐν αὐτῇ.

2. Decline throughout ἡμέρα, ὄρος, οὗτος, χάρις, ὤν (participle), and τίς.

3. Write throughout the 2nd Aorist Optative Passive of κατακόπτω, the 2nd Aorist Indicative Middle of ἀπόλλυμι, the Present Subjunctive Middle of πλανάομαι, the 1st Aorist Imperative Passive of λείπω, the Present Indicative Active of δίδωμι, and the Imperative of εἰμί (I am).

4. Give the principal parts of δοκέω, ἐλαύνω, ἔχω, καίω, λαμβάνω, λέγω, λύω, φυλάττω.

5. Form 3rd Pl. Imp. Ind. Act. ἀπαιτέω, 3rd Sing. 1 Aor. Ind. Act. δίδωμι, Nom. 2 Aor. Part. Pass. ἐκπλήσσω, 3rd Sing. 1 Aor. Ind. Pass. ἥδομαι, 1 Aor. Inf. Pass. καταλεύω, 3 Sing. Plup. Ind. Act. προΐστημι, 1 Sing. 2 Aor. Ind. Act. συνάγω, 3rd Plur. 1 Aor. Subj. Mid. ψηφίζω.

6. Parse ἀπαρασκευότατον, αὐτόμολοι, εὐώδη, ἡμίσει, κρείττους, πρόφασιν; and, the verbs διεσπάσθαι, ἐθεώρει, ἡρπασμένα, θηρῷεν, μέμνοιο, ὀκνοίην.

7. Parse and explain any peculiarity of formation in ἐδίδου, ἔμεινα, ἠνέσχετο, θᾶσσον, πλησιαίτατος, πρόοιτο, συνείπετο, χρῆσθαι.

8. Derive fully and give the meanings of ἀλέτης, ἁμαξιτός, δαρεικός, δασμός, δρεπανηφόρος, ἐπίρρυτος, εὐήθεια, εὐνοϊκῶς, εὐώνυμος, ὁλκάς, σύνθημα, φοινικιστής.

9. Where and what are Abydos, Cappadocia, Castolus, Psarus, Samos, Sardis, Stymphalus, Thapsacus, Thrace?

10. Translate and explain the grammar of all the oblique cases in the following :—

(a) ἐνταῦθα ἦσαν κῶμαι μεσταὶ σίτου καὶ οἴνου.

(b) ἀνέβη οὖν, οὐδενὸς κωλύοντος.

(c) σκεπτέον ἐστὶν ὅπως ὡς ἀσφαλέστατα ἄπιμεν.

(d) εὔηθες ἂν εἴη αἰτεῖν ἡγεμόνα παρὰ τούτου ᾧ λυμαινόμεθα τὴν πρᾶξιν.

11. Translate and explain the following :—

    (a) τὰ Λύκαια ἔθυσε καὶ ἀγῶνα ἔθηκε.

    (b) ἐφ᾽ ᾗ λέγεται Μίδας τὸν Σάτυρον θηρεῦσαι, οἴνῳ κεράσας αὐτήν.

    (c) ὁ δὲ σίγλος δύναται ἑπτὰ ὀβολοὺς καὶ ἡμιοβόλιον Ἀττικούς.

    (d) οἱ τῶν ἀρίστων Περσῶν παῖδες ἐπὶ ταῖς βασιλέως θύραις παιδεύονται.

12. Translate into idiomatic English—

Ὦ ἄνδρες Ἕλληνες, οὐκ ἀνθρώπων ἀπορῶν βαρβάρων συμμάχους ὑμᾶς ἄγω, ἀλλὰ νομίζων ἀμείνονας καὶ κρείττους πολλῶν βαρβάρων ὑμᾶς εἶναι, διὰ τοῦτο προσέλαβον. Ὅπως οὖν ἔσεσθε ἄνδρες ἄξιοι τῆς ἐλευθερίας, ἧς κέκτησθε, καὶ ὑπὲρ ἧς ὑμᾶς ἐγὼ εὐδαιμονίζω. Εὖ γὰρ ἴστε, ὅτι τὴν ἐλευθερίαν ἑλοίμην ἂν ἀντὶ ὧν ἔχω πάντων καὶ ἄλλων πολλαπλασίων. Ὅπως δὲ καὶ εἰδῆτε, εἰς οἷον ἔρχεσθε ἀγῶνα, ἐγὼ ὑμᾶς εἰδὼς διδάξω. Τὸ μὲν γὰρ πλῆθος πολὺ καὶ κραυγῇ πολλῇ ἐπίασιν· ἂν δέ ταῦτα ἀνάσχησθε, τὰ ἄλλα καὶ αἰσχύνεσθαί μοι δοκῶ, οἵους ἡμῖν γνώσεσθε τοὺς ἐν τῇ χώρᾳ ὄντας ἀνθρώπους. Ὑμῶν δὲ ἀνδρῶν ὄντων καὶ εὐτόλμων γενομένων, ἐγὼ ὑμῶν τὸν μὲν οἴκαδε βουλόμενον ἀπιέναι τοῖς οἴκοι ζηλωτὸν ποιήσω ἀπελθεῖν, πολλοὺς δὲ οἶμαι ποιήσειν τὰ παρ᾽ ἐμοὶ ἑλέσθαι ἀντὶ τῶν οἴκοι. ·

Greek.—II.

Three Hours and a half.

EURIPIDES—Medea.

1. Translate—

ἤδη δὲ πάντα τἀμά σοι βουλεύματα
λέξω. δέχου δὲ μὴ πρὸς ἡδονὴν λόγους.
πέμψασ᾽ ἐμῶν τιν᾽ οἰκετῶν Ἰάσονα
εἰς ὄψιν ἐλθεῖν τὴν ἐμὴν αἰτήσομαι·
μολόντι δ᾽ αὐτῷ μαλθακοὺς λέξω λόγους,
ὡς καὶ δοκεῖ μοι ταῦτα καὶ καλῶς ἔχει,
γάμους τυράννων, οὓς προδοὺς ἡμᾶς ἔχει,
καὶ ξύμφορ᾽ εἶναι καὶ καλῶς ἐγνωσμένα·
παῖδας δὲ μεῖναι τοὺς ἐμοὺς αἰτήσομαι,
οὐχ ὡς λιποῦσα πολεμίας ἐπὶ χθονὸς
ἐχθροῖσι παῖδας τοὺς ἐμοὺς καθυβρίσαι,
ἀλλ᾽ ὡς δόλοισι παῖδα βασιλέως κτάνω.
πέμψω γὰρ αὐτοὺς δῶρ᾽ ἔχοντας ἐν χεροῖν,
λεπτόν τε πέπλον καὶ πλόκον χρυσήλατον·
κἄνπερ λαβοῦσα κόσμον ἀμφιθῇ χροΐ,
κακῶς ὀλεῖται πᾶς θ᾽ ὃς ἂν θίγῃ κόρης·
τοιοῖσδε χρίσω φαρμάκοις δωρήματα.

2. Translate—

τί δέ σοι παῖδες πατρὸς ἀμπλακίας
μετέχουσι ; τί τούσδ᾽ ἔχθεις ; οἴμοι,
τέκνα, μή τι πάθηθ᾽ ὡς ὑπεραλγῶ.
δεινὰ τυράννων λήματα, καί πως
ὀλίγ᾽ ἀρχόμενοι, πολλὰ κρατοῦντες,
χαλεπῶς ὀργὰς μεταβάλλουσιν.
τὸ γὰρ εἰθίσθαι ζῆν ἐπ᾽ ἴσοισιν
κρεῖσσον· ἐμοίγ᾽ οὖν, εἰ μὴ μεγάλως,
ὀχυρῶς γ᾽ εἴη καταγηράσκειν.
τῶν γὰρ μετρίων πρῶτα μὲν εἰπεῖν
τοὔνομα νικᾷ, χρῆσθαί τε μακρῷ
λῷστα βροτοῖσιν· τὰ δ᾽ ὑπερβάλλοντ᾽
οὐδένα καιρὸν δύναται θνητοῖς·
μείζους δ᾽ ἄτας ὅταν ὀργισθῇ
δαίμων οἴκοις ἀπέδωκεν.

Name and scan the last two lines.

3. Rearrange the following into seven Iambic Lines, and mark the scansion :—

> οὐ νῦν πρῶτον ἀλλὰ πολλάκις ὀργὴν τραχεῖαν κατεῖδον ὡς κακὸν ἀμήχανον·
> γῆν γὰρ τήνδε καὶ δόμους παρόν σοι ἔχειν, κρεισσόνων βουλεύματα φερούσῃ κούφως,
> χθονὸς ἐκπεσεῖ οὕνεκα ματαίων λόγων· καὶ οὐδὲν μὲν ἐμοὶ πρᾶγμα
> μή ποτε παύσῃ λέγουσα ὡς Ἰάσων ἐστὶ κάκιστος ἀνήρ.

4. Translate into English—

> ταῦτα δὲ ἔχων ἔφη πρὸς τοῖς ἐν Πύλῳ στρατιώταις ἐντὸς ἡμερῶν εἴκοσιν ἢ ἄξειν Λακε-
> δαιμονίους ζῶντας ἢ αὐτοῦ ἀποκτενεῖν. τοῖς δὲ Ἀθηναίοις ἐνέπεσε μέν τι καὶ γέλωτος τῇ
> κουφολογίᾳ αὐτοῦ, ἀσμένοις δ' ὅμως ἐγίγνετο τοῖς σώφροσι τῶν ἀνθρώπων, λογιζομένοις δυοῖν
> ἀγαθοῖν τοῦ ἑτέρου τεύξεσθαι, ἢ Κλέωνος ἀπαλλαγήσεσθαι, ὃ μᾶλλον ἤλπιζον, ἢ σφαλεῖσι
> γνώμης Λακεδαιμονίους σφίσι χειρώσασθαι. καὶ πάντα διαπραξάμενος ἐν τῇ ἐκκλησίᾳ, καὶ
> ψηφισαμένων Ἀθηναίων αὐτῷ τὸν πλοῦν, τῶν τε ἐν Πύλῳ στρατηγῶν ἕνα προσελόμενος
> Δημοσθένην, τὴν ἀγωγὴν διὰ τάχους ἐποιεῖτο. τὸν δὲ Δημοσθένην προσέλαβε πυνθανόμενος
> τὴν ἀπόβασιν αὐτὸν ἐς τὴν νῆσον διανοεῖσθαι. οἱ γὰρ στρατιῶται κακοπαθοῦντες τοῦ χωρίου
> τῇ ἀπορίᾳ καὶ μᾶλλον πολιορκούμενοι ἢ πολιορκοῦντες ὥρμηντο διακινδυνεῦσαι.

5. Put into Greek—

    (a) Together with you, said he, I will suffer whatever may be needful.

    (b) We all see that the general has a large force, both foot, cavalry, and naval.

    (c) If it seems good to you, read me the letter from the king.

    (d) My mistress would not have sailed to Greece, had not the pine fallen.

6. What was about the date of the production of the Medea ? Name the characters who appear in the play.

7. Medea calls the Corinthians Σισύφειοι. Why? and why was the name an epithet of contempt ?

8. Give the meaning and exemplify fully the formation of these words,—ἀπενάσθην, δρασείω, ἐξελᾷς, κηδεμών, ὄλωλα, ὄμμα, παραμπίσχειν, πλημμελής, ῥᾳθυμία, ὠσθήσει.

9. Translate and explain fully the grammar and the meaning of these lines :—

> τοσοῦτον οὖν σου τυχνάνειν βουλήσομαι,
> ἤν μοι πόρος τις μηχανή τ' ἐξευρεθῇ
> πόσιν δίκην τῶνδ' ἀντιτίσασθαι κακῶν
> τὸν δόντα τ' αὐτῷ θυγατέρ' ἥ (or ἥν or ᾗ) τ' ἐγήματο.

10. Translate and point out the alterations in meaning produced by the various readings in the following :—

    (a) ἐρετμῶσαι χέρας ἀνδρῶν ἀρίστων (or ἀριστέων).

    (b) ἀνακαλεῖ δὲ δεξιᾶς (or δεξιὰς) πίστιν μεγίστην.

    (c) ἤκουσά του λέγοντος, or ἤκουσα τοῦ λέγοντος.

    (d) θάρσει κρατεῖς (or κάτει) τοι καὶ σὺ πρὸς τέκνων.

11. Translate and explain fully the grammar of τούσδ' ἐρημώσας ἔχε, κείνῳ τόδε μὴ χαράσσου, καὶ δὴ τεθνᾶσι, παῖδας ἐκδιδάσκεσθαι σοφούς, σοφώτερ' ἢ κατ' ἄνδρα συμβαλεῖν ἔπη, οὐ μὴ δυσμενὴς ἔσει φίλοις.

12. Translate and explain the metaphor or the allusions in οὐ ξυγγενῆ μεθορμίσασθαι τῆσδε ἔχουσα συμφορᾶς, ἐξίασι πάντα δὴ κάλων, γούνων ὡς μάτην ἐχρώσμεθα, ἐν γὰρ ἐκτενεῖ σ' ἔπος, ὀμφαλὸν γῆς θεσπιῳδόν, ἐκ τοῦδ' ἀναψόμεσθα πρυμνήτην κάλων.

French.

Molière—L'Avare.   Guizot—Edouard III. et les Bourgeois de Calais.

To pass, Questions 1—6 inclusive must be answered fairly.

1. Give the meaning and the feminine of acteur, blanc, chanteur, fâcheux, fils, grec, mon, oisif, sec, traitre.

2. Write down these tenses—imperfect indicative of feindre, present indicative of recevoir, imperfect subjunctive of songer, imperative of suivre, present subjunctive of tenir, preterite definite of venir, present subjunctive of voir, present indicative of vouloir.

3. Write down the first person singular of the present indicative, the future indicative, and the imperfect subjunctive of aller, courir, devoir, dire, mourir, pouvoir, prendre, résoudre.

4. Put into French—(*a*) What do you want? (*b*) Why must you go? (*c*) Give to each what you owe him. (*d*) Let no one say that to-day shall certainly have its to-morrow. (*e*) In the eyes of God the rich man is worth (valoir) no more than the poor. (*f*) You are wrong, it is he only who is right. (*g*) Go and see if it still rains. (*h*) The twenty-eighth of August, eighteen hundred and seventy-one.

5. Translate literally—

Le roi Edouard ne laissait pas ses troupes dans une complète oisiveté ; des attaques sur les petites villes du Calaisis les tenaient en haleine. Terouenne fut prise d'assaut, malgré le secours qu'Arnould d'Aueneham parvint à lui amenir en passant au travers des Anglais qui le tenaient enfermé dans Calais ; la petite ville de Mare succomba aussi ; mais Guisnes et Ardres résistèrent et échappèrent à la destruction que les Anglais faisaient subir aux places dont ils s'emparaient, pour les punir du temps qu'ils perdaient devant Calais.

6. Give the English of amorce, boiteux, brasseur, cocher, coin, dégât, dîmes, poignée, renfort, rosser, tousser, traire.

7. Translate—

Hélas! mon pauvre argent, mon pauvre argent, mon cher ami on m'a privé de toi! et, puisque tu m'es enlevé, j'ai perdu mon support, ma consolation, ma joie ; tout est fini pour moi, et je n'ai plus que faire au monde ! Sans toi il m'est impossible de vivre. C'en est fait ; je n'en puis plus, je me meurs, je suis mort, je suis enterré. N'y a-t-il personne qui veuille me ressusciter, en me rendant mon cher argent, ou en m'apprenant qui l'a pris? Hé ! que dites-vous? Ce n'est personne. Il faut, qui que ce soit qui ait fait le coup, qu'avec beaucoup de soin on ait épié l'heure ; et l'on a choisi justement le temps que je parlais à mon traitre de fils. Sortons. Je veux aller quérir la justice, et faire donner la question à toute ma maison, à servantes, à valets, à fils, à fille, et à moi aussi.

8. Translate—

L'entreprise réussit, et la confiance dans la mission divine de Jeanne s'empara de tous les cœurs. A peine entrée dans Orléans, elle dirigea elle-même toutes les sorties ; fille intrépide à la fois et timide, qu'aucun danger ne faisait reculer, mais qui ne pouvait, disait-elle, voir le sang d'un Français sans que ses cheveux se dressassent sur sa tête. Les plus vaillants capitaines de l'armée du roi rejoignirent Jeanne dans Orléans ; chaque jour les Anglais étaient obligés d'abandonner une de leurs bastilles, et les Français y mettaient le feu. Dans la nuit du 7 au 8 mai, le comte de Suffolk et lord Talbot, qui depuis sept mois dirigeaient le siége, prirent le parti de l'abandonner, et le lendemain, qui était un dimanche, ils levèrent le camp et se retirèrent, tandis que Jeanne recommandait aux siens, "pour l'amour et pour l'honneur du saint dimanche," de les laisser partir sans les attaquer.

9. Translate and explain—(*a*) Il ménaça de faire passer la garnison de la ville au fil de l'épée quand il en serait maître. (*b*) Tu fais le raisonneur. Je te baillerai de celle raisonnement-ci par les oreilles. (*c*) Il me semble que j'entends un chien qui aboie. N'est ce point qu'on en voudrait à mon argent.

10. Put into French—(1) I will willingly put myself into the power of the King of England, in my shirt, my head bare, and a halter round my neck. (2) We must eat to live, not live to eat. (3) He never says I give, but I lend you good day.

11. The following old French words are quoted from Froissart by Guizot. Give their meaning and their etymology :—Jà, moult, occire, oncques.

12. Give the etymology of the four French words following :—cheval, été, nuit, pourceau. Explain and illustrate the formation of each.

13. Put into French—After my arm-chair, walking towards the north, you discover my bed which is placed at the bottom of my room : 'tis placed in the happiest manner; the first rays of the sun come to play upon my curtains. I see them in the fine summer days advancing along the white wall, just as the sun rises; the elms which are in front of my window divide them in a thousand ways, and make them quiver on my bed, rose and white coloured, which reflecting them sheds on all sides a delicious tinge. I hear the swallows on the roof, and other birds in the elms ; and in the whole universe no person has a waking so agreeable, so peaceful as mine.

14. Translate—

A peu de distance du village qu'il habitait, se dresse une chaîne de hauteurs, dernier embranchment des Alpes Pennines. A la base du monte Mucrone, le pic le plus élevé de ces montagnes, une petite vallée, s'enfonçant tout à coup, sombre, noire, couverte de vapeurs, hérissée de rochers, bordée de précipices, semble de loin répondre à la description que Virgile et Dante nous font des bouches de l'enfer. Mais à mesure qu'on s'en approche, les rochers se montrent parés d'une belle verdure, plaisante à la vue ; les précipices offrent des versants en pente douce, où des arbustes fleuris s'échelonnent en petites collines charmantes, couvertes de bosquets naturels, et la vapeur, changeant de nuances aux rayons du soleil, tour à tour blanche, rose, violacée, finit par s'évanouir tout à fait.

Euclid, Books 1—4. Arithmetic.

Three Hours and a half.

The work of every Arithmetic question must be sent up in full.

1. State the three postulates.

2. Any two sides of a triangle are together greater than the third side.

3. In any right-angled triangle the square described upon the side subtending the right angle is equal to the squares described upon the sides containing the right angle.

4. Having drawn the figure for the foregoing, I. 47., prove that the difference of the squares described on the sides containing the right angle is equal to the difference of the squares described on the two lines joining the right angle with the outer corners of the square described on the side subtending the right angle.

5. In every triangle the square of the side subtending either of the acute angles is less than the squares of the sides containing it by twice the rectangle contained by either of these sides and the straight line intercepted between the acute angle and the perpendicular let fall upon the side from the opposite angle.

6. If two circles touch each other externally in any point the straight line which joins their centres shall pass through that point.

7. A segment of a circle being given, describe the circle of which it is a segment.

8. The straight lines joining the extremities of parallel chords in a circle are equal.

9. About a given circle describe a triangle equiangular to a given triangle.

10. In a given circle inscribe an equilateral and equiangular hexagon. To what is the side of the hexagon equal?

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11. Simplify this fraction—

$$\frac{3\frac{3}{7}}{1\frac{1}{5}\text{ of }2\frac{2}{3}} + \frac{8\frac{1}{4}\text{ of }\frac{16}{7}}{11} - \frac{9\frac{3}{4}\text{ of }1\frac{1}{8}}{4\left(\frac{1}{2}+\frac{1}{24}\right)} + \frac{2-\frac{4}{7}}{1-\frac{4}{9}}$$

12. If a piece of copper weighing 4 cwt. 3 qrs. 21 lbs. can be made into a wire 1 mile 3 furlongs 27½ yards long, find exactly to a fraction of an ounce the weight of copper required for a double line of telegraph 600 miles long.

13. The French stere contains 35·317 English cubic feet. What decimal of a stere is an English gallon which contains 277·274 cubic inches? Calculate your answer to five places of decimals.

14. Find the least common multiple of the 9 digits. Explain the reason of the process you adopt.

15. The short side of a rectangular field, the length of which is twice its breadth, is 6 chains 45 links. Find the exact time in which a man will walk round it 10 times, going at a uniform speed of $4\frac{1}{2}$ miles an hour.

16. A man has to pay four sums of £208 7s. 6d., £512 10s. 0d., £706 4s. 2d., and £908 3s. 4d. He is allowed $2\frac{1}{2}$ per cent. discount on the first, 2 per cent. on the second, and $3\frac{1}{2}$ per cent. on the last two. How much money will pay the four?

Algebra.

Three Hours and a half.

1. The sum of a and b is divided by their difference, and to this quotient is added the quotient of a divided by b. The cubes of a and b are then added together and their sum divided by the product of the sum and the difference of a and b.

Write down a fraction having the former quantity as denominator and the latter as numerator. Simplify it and find its value when $a = b = 1$.

2. Find the value of $\dfrac{a - b + c}{a - b - c} - \dfrac{ad - bc}{bd + ac} - \sqrt{\dfrac{b^3}{a^3} - \dfrac{a^3}{c^3}}$, when $a = 1, b = 2, c = -\frac{1}{2}$, $d = 0$.

3. In $x^3 - y^3$ substitute $a + \sqrt{b}$ for x, and $a - \sqrt{b}$ for y. Arrange the result in factors.

4. Divide $x^4 - 13x^2 + 36$ by $x^2 + 5x + 6$.

5. Divide $\dfrac{x^3}{6} - \dfrac{x}{4} + \dfrac{1}{8} - \dfrac{5x^2}{36}$ by $\dfrac{x}{3} - \dfrac{1}{2}$. Verify your answer by Multiplication.

6. Simplify—

$$\frac{x + 2}{2(x + 1)} + \frac{2 - x}{2(x - 1)} - \frac{x}{x^2 + 1}, \text{ and } \frac{x^{3n}}{x^n - 1} - \frac{x^{2n}}{x^n + 1} - \frac{1}{x^n - 1} + \frac{1}{x^n + 1}.$$

7. If a men in x days consume p cwt. of flour, and if 4 women eat as much as 3 men, find an expression for the number of lbs. of flour that b women will require for $x + 1$ days.

8. Find the G.C.M. of $6x^2 + x - 2$ and $9x^3 + 48x^2 + 52x + 16$.

9. Given a the first term and d the common difference of a series of quantities in Arithmetical Progression. Calculate a formula for the nth term, and for the sum of n terms.

Given a 10, d — 2, find the sum of 8 terms.

10. Write down ·0024374 and ·0002435 as Vulgar Fractions.

State and explain the algebraical formula on which your Arithmetic rule depends.

11. Shew how to express any fraction $\dfrac{a}{b}$ as a continued Fraction. Hence determine 3 convergents to 3·14159.

12. Prove that if the two digits of any number between 10 and 100 be reversed, the difference between the old and the new number is divisible by 9.

13. Extract the square root of $a^4 - 4a^3 + 10a^2 - 12a + 9$.

14. Solve these Equations—

(1.) $\frac{1}{10}\left(7x + 6\frac{1}{3}\right) + \frac{1}{12}\left(11x - \frac{1}{2}(x - 1\frac{1}{2})\right) = \frac{1}{5}\left(3x + 1\right) + \frac{1}{22}\left(43x - \frac{1}{3}(3 - 8x)\right)$

(2.) $\sqrt{x} + \sqrt{x - \sqrt{1 - x}} = 1.$

(3.) $\frac{x-1}{x-2} - \frac{x-2}{x-3} = \frac{x-4}{x-5} - \frac{x-5}{x-6}$

(4.) $\frac{x+y}{3} + \frac{y-x}{2} = 9$
$\frac{x}{2} + \frac{x+y}{9} = 5$

15. Solve also the following—

(1.) $\frac{2x}{x+2} + \frac{x+2}{2x} = 2.$

(2.) $\sqrt{x+9} = 2\sqrt{x} - 4.$

(3.) $x^2 + y^2 = 20$
$xy - x - y = 2$

16. The volume of a Pyramid varies jointly as the area of its base and its altitude. A Pyramid whose base is 9 feet square, and height 10 feet, contains 10 cubic yards. If the base of another Pyramid is a yard square, and its content 2 cubic yards, find its height.

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Three Hours and a half.

1. Describe a triangle having its sides in the ratio of 4, 3, and 2.

2. The side of an isosceles triangle is produced, and the exterior angle bisected. Prove that the bisecting line is parallel to the base.

3 The circles described on two sides of a triangle as diameters intersect in a point in the third side, or third side produced.

4. If two triangles have one angle of the one equal to one angle of the other and the sides about the equal angles proportionals, the triangles shall be equiangular and shall have those angles equal which are opposite to the homologous sides.

5. Four straight lines are proportionals if the rectangle contained by the extremes is equal to the rectangle contained by the means.

6. An angle of a triangle is bisected by a line, which also cuts the base; the rectangle contained by the sides of the triangle is equal to the rectangle contained by the segments of the base together with the square of the line which bisects the angle.

7. If two straight lines are cut by parallel planes they are cut in the same ratio.

8. If three straight lines meet in one point, and at that point the same straight line stands at right lines to each of them, they are all in the same plane.

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9. Define the versed sine. Given vers $A = \frac{1}{5}$, find tan A.

10. If the earth's equatorial diameter be 7925 miles, calculate the length of 72° along the equator.

11. If $6 \tan \theta + 12 \cot \theta = 5 \sqrt{3} \sec \theta$, find θ.

12. Standing 100 feet away from the foot of a tower, I find that it subtends an angle of 60°. Find its height.

13. Prove that $\sin \overline{A + B} = \sin A \cos B + \sin B \cos A.$

14. Hence calculate sin 75°.

15. Prove that (a) $\tan A = \dfrac{\sin \frac{2}{3} A + \sin \frac{4}{3} A}{\cos \frac{2}{3} A + \cos \frac{4}{3} A}$

     (b) $\dfrac{1 + \sin 2A}{1 + \cos 2A} = \frac{1}{2} (1 + \tan A)^2$

16. Solve completely the triangle, $a = 90$, $B = 45°$, $C = 60°$.

17. Calculate the area of a triangular field in acres, roods, and perches, the sides being 70, 80, and 90 yards.

18. Given log 2 = ·30103, and log 3 = ·4771213, calculate the logarithms of ·72, $2\frac{1}{4}$, $\sqrt{60}$.

Natural Philosophy.

Three Hours and a half.

1. If the resultant of two forces acting at right angles is 20, and is inclined at an angle of 30° to one component, find the two components.

2. State and prove the proposition known as the Triangle of Forces.

3. Two parallel forces of 400 and 225 pounds respectively act at a distance of 60 inches. Find the magnitude and position of their resultant, (a) if concurrent, (b) if non-concurrent.

4. Find geometrically the centre of gravity of half a hexagon. Find its place exactly if the side of the hexagon is 12 inches.

5. What is the mechanical advantage in the wheel and axle? What difficulty is there in increasing it? By what other arrangement is this difficulty met, and what is the mechanical advantage in this?

6. The total length of the beam of a false balance is 2 feet. Find the length of the arms if the sum of the apparent weights in the two scales of a weight of 10 lbs. be 25 lbs.

7. Weight of pulleys disregarded, how many pulleys must there be on the first system if 1 quarter sustains 4 cwt.?

8. A plane rises 6 in 57. Find to the nearest ounce the horizontal force which will sustain a weight of 40 lbs.: and find also the pressure on the plane.

9. A bullet is fired straight up, with an initial velocity of 1100 feet a second. How high will it go?

10. What is the First Law of Motion? Explain why it cannot be established by direct experiment.

11. One body is let fall, and 2″ later another is dropped from the same point. What is the distance between them when the first has been falling exactly 10″?

12. Explain fully the principle and the action of the Safety Valve.

13. Define specific gravity. Write down as nearly as you can the specific gravity of Aluminium, Brick, Gold, Lead, Oxygen, Sea Water.

14. A mixture of silver and copper weighs 2lbs. Troy, and its specific gravity is 10. How many ounces and pennyweights of each metal are there in it, the specific gravity of silver being 10·5, and that of copper 9?

15. Give a full account of the working of the common pump, and of the limit to its action.

16. What is the atmospheric pressure if the Mercurial Barometer stands at 29·5 inches?

Drawing.

No. 1.—From the Flat.

Two hours.

Copy the drawing given.   As nearly as you can, the size of the original.
No means of measurement permitted.

No. 2.—Linear Perspective.

Two hours.

1. Represent a pyramid, having a base 4 feet square, and a height of 6 feet.   One side parallel to, but 1 foot within the " picture plane ;" the nearest angle 2 feet to the left of the " centre ;" " horizontal line" to be 5 feet above " ground plane ;" " distance" 8 feet ; scale, half inch to a foot.

2. A horizontal square of 3 feet ; one of its angles touching the " transparent plane," 4½ feet below the level of the eye, 2 feet to the right of the " centre."   The two nearest sides to be placed at equal angles to the transparent plane.

   " Distance" 5 feet ; scale, half inch to a foot.

3. A rectangular vertical plane 8 feet high and 7 feet wide at right angles to the " transparent plane," 10 feet to the right of the " centre ;" the nearest edge of the plane being 4 feet beyond the transparent plane. Height of the eye 5 feet. " Distance" 15 feet. Scale, half inch to a foot.

4. In the centre of the above plane, represent a square of 4 feet, having its sides parallel to those of the rectangular figure.

No. 3.—From Models.

Two hours.

Make a careful drawing of the arrangement of cubes, &c. as placed before you.
No ruling of lines permitted.