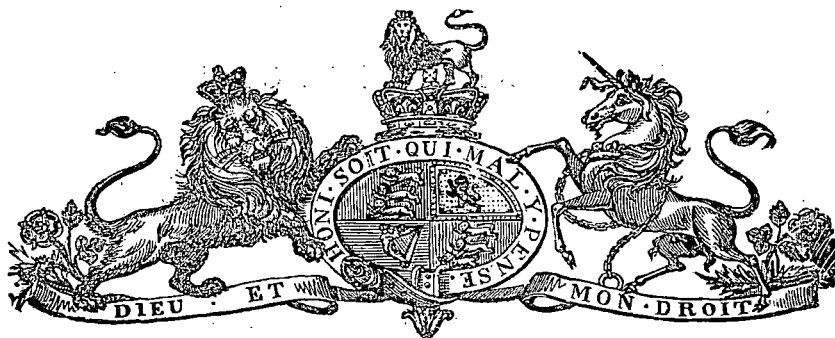1873.

TASMANIA.

LEGISLATIVE COUNCIL.

DEGREE OF ASSOCIATE OF ARTS:

EXAMINERS' REPORT FOR 1873.

Laid upon the Table by Mr. Chapman, and ordered by the Council to be printed,
October 3, 1873.

TASMANIAN COUNCIL OF EDUCATION.

DEGREE OF ASSOCIATE OF ARTS.—SEPTEMBER, 1873.

IN conformity with the Rules and Regulations of the Tasmanian Council of Education, the Council has 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 :—

FIRST CLASS.

ARTHUR PITCAIRN CANAWAY, Hutchins School, Hobart Town. Awarded the Council's Gold Medal as Senior Associate of the year, the Council's First Prize of the value of £10 for English, a Prize of the value of £5 each for Natural Philosophy and Chemistry, and Second Prize of the value of £5 each for Latin, Greek, French, and Mathematics.

ALFRED DORAN, Hutchins School, Hobart Town. Awarded the Council's First Prize of the value of £10 each for Latin, Greek, and French.

CHARLES JAMES PIKE, High School, Hobart Town. Awarded the Council's First Prize of the value of £10 for Mathematics. ·

HERVEY MORRES MURRAY PRIOR, High School, Hobart Town.

SECOND CLASS.

CHARLES RICHARD MORRISS, Hutchins School, Hobart Town.

THIRD CLASS.

ERNEST WADDELL PERKINS, Hutchins School, Hobart Town.
WILLIAM ROSSENDELL PIERCE, High School, Hobart Town.
CLARA MARTHA DOWDELL. Tutor, Miss Garrett, Hobart Town.
GEORGE THEOPHILUS EDDIE, Church Grammar School, Launceston.
EDWARD GEORGE DAWES. Tutor, Rev. E. Symonds, Hobart Town.

On the 25th September the Degree was conferred upon all the foregoing with the exception of G. T. Eddie, who did not present himself.

The Council has further directed the publication of the names of the under-mentioned Candidates over the age of 19 years, who have passed the Examination for the Degree of Associate of Arts to the satisfaction of the Examiners, and upon whom the Degree has been conferred accordingly.

SECOND CLASS.

JAMES BACKHOUSE WALKER. Private Study, Hobart Town.
SARAH THOMPSON WALKER. Private Study, Hobart Town.

The Report of the Examiners, together with the General and Special Class Lists, and the tabulated results of the Examination, are appended.

By Order of the Council,

GEO. RICHARDSON, *Secretary.*

Hobart Town, 25 September, 1873.

EXAMINERS' REPORT.

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

ON behalf of the Examiners appointed by you to conduct the Examination for the Degree of Associate of Arts, I have the honour to submit the following Report.

The Preliminary Examination was held simultaneously in Hobart Town and Launceston on Wednesday, 3rd September. For this sixteen Candidates, thirteen male and three female, presented themselves, of whom two were rejected,—one for deficiency in Arithmetic, the other for ignorance in Geography. Of the rest it may be reported as follows:—

The Reading aloud was very fair.

The English Analysis and Parsing was, on the whole, satisfactory, and the passage dictated was written out with scarcely any mistakes.

The dates asked from English History were very correctly given, and throughout a very creditable knowledge of persons and events was shewn.

Of the Geography it is not possible to report so favourably. While one or two Candidates made scarcely a single slip, others shewed either gross ignorance or very great carelessness.

Arithmetic.—The sums set were perfectly straightforward, such as could not by any possibility be misunderstood. Seven of the Candidates—one of them a female—did the eight sums absolutely right without mistake, and three others failed in one sum only.

As a whole, therefore, the Preliminary Examination, which was rigorously confined to the subjects specified in the Council's scheme, may be pronounced a satisfactory one.

The ordinary Examination next claims attention. It commenced on Tuesday, the 9th September, and continued till midday on Tuesday the 16th, comprising 6½ days' work, with an average of seven hours daily.

Of the twelve Candidates, two—one male and one female—were rejected.

Two who passed—one male and one female—were over the age prescribed for ordinary Examinees, and all account of their work is therefore excluded from the reports which follow; but it may here be stated generally that the work of these two Candidates, J. B. Walker and Sarah Walker, was throughout very good, each obtaining a Second Class, though each presented four subjects only.

The reports on the work of the remaining twelve are:—

I. ENGLISH, INCLUDING HISTORY AND GEOGRAPHY.—A somewhat involved and difficult passage—the opening sentences of the translation of Milton's Defence of the People of England—which it is improbable that any Candidate had studied before, was, with scarcely an exception, well and intelligently analysed. All the questions on the book prescribed were throughout fairly done. The derivations given showed commendable study, but in some instances, a singular want of common sense; as, for instance, when a Candidate sought a Greek etymology for the last syllable of the common English word *landscape*; or, stranger still, when another believed that the first syllable of *elbow* might be identified with the Arabic article *el*, the.

Half a dozen common words in everyday use were proposed, and derivations and definitions asked. The former were fair, the latter not good. Nor is it possible to commend the English Essays, most of which were "rudis indigestaque moles,"—a few commonplaces strung together without order or method. It is however due to Candidates generally, to record that throughout the English papers there occurred hardly any misspelt words, in which particular a great improvement upon former years was manifested. On the whole it may be said of this part of the Examination, that what could be prepared beforehand was well done, the portion which required original work on the spur of the moment was indifferent.

From this comment, however, must be excepted the papers of Pike and Canaway, the answering of both being good throughout.

HISTORY.—A very fair knowledge of the important period prescribed was shown by all the candidates; one or two of the brief historical narratives asked were admirably done, both as histories

of events and as English compositions. In this paper Prior and Canaway specially distinguished themselves.

GEOGRAPHY.—Answering, on the whole, fair. The Map of Tasmania did not show on the part of all candidates quite so much acquaintance with the geography of the Island as is desirable, but the information inserted was generally correct. The most general failure was in assigning an approximate latitude and longitude to well-known places. Canaway and Doran did well throughout this paper.

The general result of the examination in English History and Geography was, that of the twelve candidates three passed with credit, seven passed, and one failed.

For purposes of comparison we may select 1871, an exceptionally good year, in which the number of candidates who passed was nearly the same as this year, 11 then against 10 now.

In that year the average of marks was 655. This year it falls but little short, being 630 out of a possible 1000.

II. LATIN.—Eleven Candidates. Four passed with credit, six passed, one failed. Average of marks 470 as against 486 in 1871.

The translations of passages from the books prescribed were very good, as were also the answers to questions set directly upon those books: the derivations were rather weak: the translations of a piece of Latin at sight good with one exception: the translation of English into Latin Prose, as might be expected, very unequal: and the Latin Verses only in one or two instances commendable.

III. GREEK.—Eight Candidates, four passed with credit, four passed. Average of marks 511 as against 478 in 1871.

The whole of the book-work was good, the derivations alone excepted. Candidates do not see that in this, as in other languages, there are certain principles involved in the formation of words, but proceed on mere chance resemblance to identify words utterly diverse. The translation at sight from Greek into English was generally fair. English sentences were creditably translated into Greek by Doran, Canaway, and Pike.

IV. FRENCH.—Presented by twelve, of whom two failed, five passed with credit, five passed. Average of marks 363, against 399 in 1871.

In this subject the largest amount of marks was assigned to what may be styled unprepared work, and in it most of the Candidates acquitted themselves very creditably. The translations of French at sight were good, some almost faultless: and those of English at sight into French showed considerable knowledge of the language and its idioms.

V. GERMAN.—*Rev. R. D. Poulett-Harris, M.A., Examiner.*—One Candidate passed. The grammatical questions were fairly answered. The translations scarcely indicated a sufficiently careful study of the prescribed book. The general sense of the passages was correctly given, but there were numerous inaccuracies. The translation at sight was attempted with fair success. The Examiner would recommend to future Candidates (1.) A more thorough study of the prescribed text; (2.) A careful reading of the historical period comprised in the drama or narrative; and (3.) Constant practice in composition.

VI. MATHEMATICS.—Presented by twelve. Three passed with credit, eight passed, one failed. Average of marks 342, against 317 in 1871. The Arithmetic and Euclid were decidedly good; the Algebra somewhat inferior to the ordinary run of these Examinations. In the higher papers Pike and Canaway specially distinguished themselves.

VII. NATURAL PHILOSOPHY.—Six Candidates, of whom two only passed, one with credit. Most of the Candidates had evidently studied their text book but had not really mastered the principles, or they could not have failed as they did in problems altogether depending on those principles. The failures were not, as they have often been, Arithmetical, but were entirely due to misunderstanding of the questions or misapplication of what had been learnt.

VIII. CHEMISTRY.—*H. M. Andrew, Esq., M.A., Examiner.*—Five Candidates. One passed with credit, two passed, two failed. Canaway's work was very good; that of the other two who passed fair. The papers of all, however, proved that beyond mere book study some practical laboratory work is essential to real mastery even of the rudiments of the subject.

IX. MUSIC.—*J. Summers, Esq., Mus. Bac., Examiner.*—Two Candidates. Both failed, being unprepared in the rudiments of the science.

On adding together the marks in the several subjects, it appeared that, of the ten who passed, four had surpassed the standard fixed for a First Class; that one was entitled to be placed in the Second, and five in the Third Class; and, accordingly, the following List was published on Thursday, 18th September,—the Returns from the Examiners in Melbourne having been only that morning received.

FIRST CLASS.—Canaway, A. P. 3295
Doran, A. 3056
Pike, C. J..................... 3012
Prior, H. M. M. 2489
SECOND CLASS.—Morriss, C. R. 2173
THIRD CLASS.—Perkins, E. W. 1879
Pearce, W. R. 1817
Dowdell, Clara M............. 1558
Eddie, G. T.................. 1593
Dawes, E. G. 1407

The following Table shows how this Examination stands as compared with passed years :—

	No. of Candidates.	Rejected at Preliminary.	Admitted to A.A. Examination.	Passed.	First Classes.	Second Classes.	Third Classes.	Average of highest Marks obtained.	Average of all who passed.	Highest Marks yet gained.	Highest average yet reached.
										1871.	
1860–1871	114	13	91	84	40	19	25	2637	2095	3303	2430
1872	11	0	11	9	3	1	5	2821	2075		
1873	14	2	12	10	4	1	5	3295	2228		

On the whole, therefore, the Examination closed must be accounted satisfactory; and the Council will, doubtless, be glad to observe that under precisely similar conditions as to papers set and the valuing of answers, two out of the three female Candidates of the year have succeeded in obtaining fair places in the Class Lists. That their standard should, for the present at least, be fixed a trifle below that for male Candidates is certainly not inequitable. It is not now lower than that with which the Associates of 1860 started: and doubtless, as now in Victoria, here also the female Candidates will soon be able to ask only " a fair field and no favour."

The Priz es which by the Council's Regulation must be awarded are—

The Council's Gold Medal........................ A. P. Canaway.
First Prize for English.. .... A. P. Canaway.
First Prize for Latin............................. A. Doran.
First Prize for Greek............................ A. Doran.
First Prize for French........................... A. Doran.
First Prize for Mathematics...................... C. J. Pike.
Prize to the Senior Female Associate .... Clara M. Dowdell.

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

Prize for French .... Clara M. Dowdell.
Prize for Natural Philosophy .... A. P. Canaway.
Prize for Chemistry .... A. P. Canaway.
Second Prize for Latin .... A. P. Canaway.
Second Prize for Greek.......................... A. P. Canaway.
Second Prize for French .... A. P. Canaway.
Second Prize for Mathematics .... A. P. Canaway.

The Examiner present at Hobart Town desires to acknowledge the valuable assistance of your Secretary, without whose aid he could not possibly have got through his portion of the work in the time, and the rapidity and care with which the Examination Papers were prepared by the Government Printer.

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

For the Examiners,
M. H. IRVING, *M.A.*

TASMANIAN COUNCIL OF EDUCATION.

EXAMINATION FOR THE DEGREE OF ASSOCIATE OF ARTS, SEPTEMBER, 1873.

GENERAL CLASS LIST.

FIRST CLASS.

NO.	NAME.	MARKS.	AGE. yrs. mths.			SCHOOL.	TEACHER.
1	Canaway, A. P.	3295	16 6	Council's Gold Medal 1st Prize English .... Prize Chemistry .... Prize Natural Philosophy.... 2nd Prize Latin .... 2nd Prize Greek.......... 2nd Prize French.......... 2nd Prize Mathematics	£10 £5 £5 £5 £5 £5 £5	Hutchins	Rev. J. R. Buckland, B.A.
2	Doran, A.	3056	15 10	1st Prize Latin .... 1st Prize Greek ... . 1st Prize French	£10 £10 £10	Hutchins	Rev. J. R. Buckland, B.A.
3	Pike, C. J.	3012	17 1	1st Prize Mathematics	£10	High	Rev. R. D. P. Harris, M.A.
4	Prior, H. M. M.	2489	17 0	..		High	Rev. R. D. P. Harris, M.A.

SECOND CLASS.

5	Morriss, C. R.	2173	17 2	..		Hutchins	Rev. J. R. Buckland, B.A.

THIRD CLASS.

6	Perkins, E. W.	1879	16 10	..		Hutchins	Rev. J. R. Buckland, B.A.
7	Pierce, W. R.	1817	17 3	..		High	Rev. R. D. P. Harris, M.A.
8	Dowdell, Clara M.	1558	18 8	Council's Prize for Senior Female Associate .... Prize for French	£5 £5	Private Hob. Town	Miss Garrett.
9	Eddie, G. T.	1593	17 8	..		Launceston Church Grammar	Rev. W. H. Savigny, M.A.
10	Dawes, E. G.	1407	17 6	..		Private Hob. Town	Rev. E. Symonds.

For the Examiners,

18th September, 1873.

M. H. IRVING, M.A.

SPECIAL CLASS LIST.

English.	Latin.	Greek.	French.	German.	Pure Mathematics.	Natural Philosophy.	Chemistry.	Music.
FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.
Canaway. Doran. Pike. — —	Doran. Canaway. Pike. Prior. —	Doran. Canaway. Pike. Prior. —	Doran. Canaway. Pike. Morriss. Dowdell.	— — — — —	Pike. Canaway. Prior. — —	Canaway. — — — —	Canaway. — — — —	— — — — —
SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.
Prior. Dawes. Perkins. Eddie. Dowdell. Pierce. Morriss.	Morriss. Perkins. Pierce. Eddie. Dawes. — —	Morriss. Pierce. Perkins. — — — —	Prior. Eddie. Perkins. Dawes. Pierce. — —	Dowdell. — — — — — —	Doran. Eddie. Morriss. Dowdell. Perkins. Dawes. Pierce.	Pike. — — — — — —	Pike. Doran. — — — — —	— — — — — — —

For the Examiners,

Hobart Town, 18th September, 1873.

M. H. IRVING, M.A.

TASMANIAN COUNCIL OF EDUCATION.

EXAMINATION for the Degree of ASSOCIATE OF ARTS.—*September,* 1873.

TABULATED RESULTS.

NO.	NAME.	DATE OF BIRTH.	SCHOOL.	TEACHER.	*English.*	*Latin.*	*Greek.*	*French.*	*German.*	*Pure Mathematics.*	*Natural Philosophy.*	*Chemistry.*	*Music.*	TOTAL.	CLASS.
				[*Maximum No. of Marks*	1000.	800.	800.	600.	600.	800.	300.	300.	400.		
1	Canaway, Arthur Pitcairn	31 March, 1857	Hutchins School	Rev. J. R. Buckland, B.A.	c 769	c 573	c 596	c 444	..	c 529	c 190	c 221	..	3295	First.
2	Doran, Alfred	23 Nov., 1857	Hutchins School	Rev. J. R. Buckland, B.A.	c 718	c 678	c 637	c 483	..	391	n.p.	149	..	3056	First.
3	Pike, Charles James	7 August, 1856	High School	Rev. R. D. Poulett Harris, M.A.	c 697	c 542	c 550	c 428	..	c 541	102	125	..	3012	First.
4	Prior, Hervey Morres M.	9 Sept., 1856	High School	Rev. R. D. Poulett Harris, M.A.	665	c 5`4	c 542	348	..	e 400	..	..	..	2489	First.
5	Morriss, Charles Richard	15 July, 1856	Hutchins School	Rev. J. R. Buckland, B.A.	511	413	512	c 425	..	312	n.p.	..	..	2173	Second.
6	Perkins, Ernest Waddell	25 Nov., 1856	Hutchins School	Rev. J. R. Buckland, B.A.	594	406	354	288	..	237	n.p.	n.p.	..	1879	Third.
7	Pierce, William Rossendell	2 June, 1856	High School	Rev. R. D. Poulett Harris, M.A.	569	397	412	244	..	195	..	..	..	1817	Third.
8	Dowdell, Clara Martha	8 Jan., 1855	Private, Hobart Town	Miss Garrett	574	..	..	c 401	301	282	..	..	n.p.	1558	Third.
9	Eddie, George Theophilus	29 Jan., 1856	Church Grammar School, Launceston	Rev. W. H. Savigny, M.A.	591	365	..	314	..	323	n.p.	..	..	1593	Third.
10	Dawes, Edward George	1 March, 1856	Private Tuition, Hobart Town	Rev. E. Symonds	619	325	..	255	..	208	..	..	..	1407	Third.

NOTE.—*c.* passed with credit; *n.p.* not passed.

For the Examiners,

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

Hobart Town, 18*th September,* 1873.

TASMANIAN COUNCIL OF EDUCATION.

EXAMINATION FOR THE DEGREE OF ASSOCIATE OF ARTS, SEPTEMBER, 1873.

Separate List.—Candidates over 19 years of age.

TABLE OF MARKS.

NAME.	*Residence.*		*English.*	*Latin.*	*French.*	*German.*	*Pure Mathematics.*	TOTAL.	CLASS.
		[*Max. No. of Marks*.	1000.	800.	600.	600.	800.		
Walker, James Backhouse	Hobart Town	Private Study	854 c	590c	524c	—	316	2284	Second.
Walker, Sarah Thompson	Hobart Town	Private Study	626	—	447c	427c	303	1803	Second.

NOTE.—*c.* passed with credit.

For the Examiners,

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

18*th September*, 1873.

SPECIAL CLASS LIST.

Separate List.— Candidates over 19 years of age.

English.	Latin.	French.	German.	Pure Mathematics.
FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.
Walker, J. B.	Walker, J. B.	Walker, J. B.	Walker, Sarah T.	—
—	—	Walker, Sarah T.	—	—
SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.
Walker, Sarah T.	—	—	—	Walker, J. B.
—	—	—	—	Walker, Sarah T.

For the Examiners,

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

18*th September*, 1873.

TASMANIAN COUNCIL OF EDUCATION.

EXAMINATION FOR THE DEGREE OF ASSOCIATE OF ARTS.—SEPTEMBER, 1873.

Preliminary Examination.

All marks obtained by those who pass will be carried forward into the ordinary Examination.

ARITHMETIC.

Two hours.

M. H. IRVING, M.A., Examiner.

No credit will be given for any question unless the whole of the work be sent up and the answer be absolutely correct.

No Candidate will pass who does not do correctly one sum in each question.

1. Multiply—
   - (a) 964382 by 7485.
   - (b) 769345 by 8597.

2. Divide—
   - (a) Ten million one thousand by 7329.
   - (b) 3,604,001 by 2708.

3. Multiply—
   - (a) £875 16s. 9¼d. by 456.
   - (b) £469 15s. 6½d. by 738.

4. Divide—
   - (a) One million pounds 2s. 2¼d. into 529 equal parts.
   - (b) £37,831,928 15s. 3¾d. by 1935.

ENGLISH.

Two hours.

1. Analyse the following :—" If it is my blood you want, I am ready to die, that the church may obtain liberty and peace : but I forbid you to hurt any of my people."

   [Be careful to state fully the nature of each sentence, and its relation to other sentences.]

2. Parse fully according to Morell's Scheme—

   " The barbarous manners of the middle ages had hardly yet been perceptibly mitigated, and laws retain their barbarity long after manners have been softened."

3. Write from dictation—

   The first and most obvious division of the Archipelago would therefore be into quiescent and volcanic regions, and it might perhaps be expected that such a division would correspond to some differences in the character of the vegetation and the forms of life. This is the case, however, to a very limited extent : and we shall presently see that, although this development of subterranean fires is on so vast a scale, has piled up chains of mountains twelve thousand feet in height, has broken up continents and raised up islands out of the ocean, yet it has all the character of a recent action, which has not yet succeeded in obliterating the traces of a more ancient distribution of land and water.

HISTORY AND GEOGRAPHY.

Three hours.

1. Name the chief mountain ranges of Europe. Give briefly their direction and position.

2. Give some account of these rivers :—The Amazon, Ganges, Murray, Niger, Volga, Yangtzekiang, stating where they rise, through what countries and in what direction they flow.

3. Name in order from north to south six of the prominent headlands on the east coast of North and South America.

4. Indicate as clearly and precisely as you can the locality of Berlin, Calcutta, Canton, Liverpool, New York, Rome, San Francisco, St. Petersburg.

5. Name in order, with the dates of their accessions, the Sovereigns of Great Britain since 1700.

6. In whose reign, against whom, and at what date, were fought the battles of Bannockburn, Blenheim, Inkerman, Lexington, Plassey, Waterloo ?

7. In whose reign were the following persons distinguished, and in connection with what events :— Thomas Cromwell, Stephen Langton, Lord Howard of Effingham, the Duke of Cumberland, Sir Robert Peel, Horatio Nelson ?

8. In whose reign did these events happen :—The Conquest of Ireland, the Union with Scotland, the Gunpowder Plot, the passing of the Reform Bill, the first French Revolution, the Execution of Queen Mary ?

𝕰𝖓𝖌𝖑𝖎𝖘𝖍.—I.
COWPER—Task, I. MORELL—Grammar and Analysis.
M. H. IRVING, M.A., Examiner.
Three hours.

1. Analyse carefully according to Morell's Second Scheme—

   "Although I fear, lest, if in defending the people of England I should be as copious in words and empty of matter as most men think Salmasius has been in his defence of the king, I might seem to deserve justly to be accounted a verbose and silly defender : yet, since no man thinks himself obliged to make so much haste as not to premise some introduction at least, according as the weight of his subject requires, if I take the same course I am in hopes of attaining two things which indeed I earnestly desire."—MILTON.

2. Give fully the derivation and briefly define the meaning of these words in common use :— authority, dictionary, landscape, parable, tax, telescope.

3.   (a) The Pleasures of Hope were written by Campbell.
   (b) Now abideth faith, hope, charity, these three.
   (c) Every limb and feature has a becoming grace.
   (d) Wherein doth sit the dread and fear of kings.

   In the foregoing is the number of the verb correct or not ? Give reasons for your answer.

4. Construct short sentences to show all the various uses of the word "as" in English, and explain to what it is equivalent in each.

5. Give Morell's Table of Adverbs, and an example of each class.

6. In what sense, differing from that in which they are now used, does Cowper employ alcove, hedgerow, restless, saturate, speculative, with pain ? Quote the line in which each occurs.

7. Give the derivations of atom, avenue, colonnade, cover, crystal, disdain, elbow, fashion, flail, mischief, nurse, paralytic, philosophy, sedan, vermicular.

   Give other words containing the roots found in atom, philosophy, vermicular.
   Illustrate by other words the changes in cover, flail, nurse.

8. Explain the meaning of the prefix in athwart, below ; and of the suffix in boyish, flight, growth, hillock, lambkin, loathsome, sickness, silence, songster, voracious.

   For each give one word similarly formed.

9. Explain clearly, and illustrate by another example, the relation of the prefix to the latter part of the compound in ankle-deep, glossy-leaved, moonbeam, sheepfold, sunburnt, well-watered.

10. Write notes (a) on the analysis of — long time elapsed or e'er our sires complained — she snores the sick man dead : though not a year but pilfers — strange there should be found, who renounce ; and (b) on the grammar of — enlightening every moment every spot : she would sit and weep : these ages past : indulges life to peculators.

11. Explain fully and refer to the context—
    (a) Great skill have they in palmistry.
    (b) Nor does the chisel occupy alone
        The powers of sculpture, but the style as much.
    (c) The favoured isles, so lately found.
    (d)   Benevolus reprieves
        The obsolete prolixity of shade.

12. Quote, or give what you can of the general purport of the fifteen or twenty lines immediately following :—
    (a) No tree in all the grove but has its charms.
    Or (b) By ceaseless action all that is subsists.

English.—II.

COMPOSITION.

One hour.

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

"The English Language is particularly prone to redundancy of speech."

Write a short essay on this assertion; proving by examples that such a tendency does exist; examining its cause; and discussing the question of its advantage or disadvantage.

Or, A brief essay on "Civilization."

History and Geography.

HUME—History of England, 1688—1820.   CORNWELL—School Geography.

Three hours.

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

1. Give a brief sketch of the Rising in 1745.
2. Give a brief sketch of the political career of the younger Pitt.
3. Explain fully the following: (*a*) "Is it taken? No; it will be soon." (*b*) "The folly of England and the ruin of America." (*c*) "Victory or Westminster Abbey." (*d*) "He was never in the way and never out of the way." (*e*) "I recommended my soul to God, and my cause to my country."
4. Give the date and the principal provisions of the following:—The Bank Restriction Act; the Act of Union (Scotland); Mr. Peel's Act; the Occasional Conformity Act; the Royal Marriage Act ; the Septennial Act.
5. Give some account of the following treaties, with dates:—Peace of Aix-la-Chapelle, Peace of Amiens, Peace of Paris, Quadruple Alliance, Peace of Tilsit, Peace of Utrecht.
6. Who were the following persons? With what important events, at about what dates, were they connected?—Beresford, Byng, Hunt, Parker, Sydney Smith, Vernon, Wilkes, Wolfe.

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1. Draw a rough outline map of Continental Europe: mark upon it the principal mountain chains and river basins.
2. Enumerate the principal islands of Malaysia, distinguishing those known as the Sunda Isles. Describe the fauna, flora, and mineral resources of Malaysia.
3. Draw a rough outline map of Tasmania, marking on it the chief capes, bays, and rivers, and the principal towns.
4. Name the chief Towns, the principal products, manufactures, and exports, of Hindostan.
5. What are the following mentioned in your Geography, and what is the meaning of the name of each :—Agulhas, Algiers, Anatolia, Bombay, Brazil, Cordillera, Florida, Galapagos, Natal, Rafflesia, Shahynshah, Tongataboo?
6. Where and what are the following? Give approximately the latitude and longitude of each :—Antigua, Bocca Tigris, Chicago, Dardanelles, Geysers, La Plata, Livonia, Magnetic Pole, Nyassi, Panama, Vosges, Yokohama.

Latin.—I.

Four hours.

VIRGIL—Æneid II. HORACE—Odes I. II. CICERO—Speeches against Catiline I. II. III.

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

Translate carefully, adding such notes as you deem necessary :—

(*a*)   Forsitan et Priami fuerint quæ fata, requiras.
Urbis uti captæ casum convulsaque vidit
Limina tectorum, et medium in penetralibus hostem,
Arma diu senior desueta trementibus ævo
Circumdat nequidquam humeris, et inutile ferrum
Cingitur, ac densos fertur moriturus in hostes.
Ædibus in mediis, nudoque sub ætheris axe,
Ingens ara fuit, juxtaque veterrima laurus,
Incumbens aræ atque umbra complexa penates.

Hic Hecuba et natæ nequidquam altaria circum,
Præcipites atra ceu tempestate columbæ,
Condensæ et divum amplexæ simulacra sedebant.
Ipsum autem sumtis Priamum juvenalibus armis
Ut vidit,—' Quæ mens tam dira, miserrime conjux,
Impulit his cingi telis ? aut quo ruis ?' inquit.
'Non tali auxilio, nec defensoribus istis
Tempus eget ; non, si ipse meus nunc afforet Hector.
Huc tandem concede ; hæc ara tuebitur omnes,
Aut moriere simul.' Sic ore effata recepit
Ad sese, et sacra longævum in sede locavit.

(b)   Nunc decet aut viridi nitidum caput impedire myrto
Aut flore, terræ quem ferunt solutæ.
Nunc et in umbrosis Fauno decet immolare lucis,
Seu poscat agna sive malit hædo.
Pallida Mors æquo pulsat pede pauperum tabernas
Regumque turres. O beate Sesti,
Vitæ summa brevis spem nos vetat inchoare longam.
Jam te premet nox fabulæque Manes
Et domus exilis Plutonia ; quo simul mearis,
Nec regna vini sortiere talis.

(c)   At, ne quis modici transiliat munera Liberi,
Centaurea monet cum Lapithis rixa super mero
Debellata, monet Sithoniis non levis Evius,
Quum fas atque nefas exiguo fine libidinum
Discernunt avidi. Non ego te, candide Bassareu,
Invitum quatiam nec variis obsita frondibus
Sub divum rapiam. Sæva tene cum Berecynthio
Cornu tympana, quæ subsequitur cæcus Amor sui,
Et tollens vacuum plus nimio Gloria verticem, .
Arcanique Fides prodiga perlucidior vitro.

(d)   Ergo obligatam redde Jovi dapem
Longaque fessum militia latus
Depone sub lauru mea nec
Parce cadis tibi destinatis.
Oblivioso levia Massico
Ciboria exple, funde capacibus
Unguenta de conchis. Quis udo
Deproperare apio coronas
Curatve myrto ? quem Venus arbitrum
Dicet bibendi ? Non ego sanius
Bacchabor Edonis : recepto
Dulce mihi furere est amico.

(e)   Utrumque sacro digna silentio
Mirantur Umbræ dicere ; sed magis
Pugnas et exactos tyrannos
Densum humeris bibit aure vulgus.
Quid mirum, ubi illis carminibus stupens
Demittit atras bellua centiceps
Aures et intorti capillis
Eumenidum recreantur angues ?
Quin et Prometheus et Pelopis parens
Dulci laborum decipitur sono ;
Nec curat Orion leones
Aut timidos agitare lyncas.

(f) Hujus tu neque auctoritatem verebere, neque judicium sequere, neque vim per-timesces ? Quæ tecum, Catilina, sic agit, et quodam modo tacita loquitur :—Nullum jam aliquot annis facinus exstitit, nisi per te ; nullum flagitium sine te : tibi uni multorum civium neces, tibi vexatio direptioque sociorum impunita fuit ac libera : tu non solum ad negligendas leges et quæstiones, verum etiam ad evertendas perfringendasque valuisti. Superiora illa, quamquam ferenda non fuerunt, tamen, ut potui, tuli : nunc vero me totam esse in metu propter unum te, quidquid increpuerit, Catilinam timeri, nullum videri contra me consilium iniri posse, quod a tuo scelere abhorreat, non est ferendum. Quamobrem discede, atque hunc mihi timorem eripe : si est verus, ne opprimar ; sin falsus, ut tandem aliquando timere desinam.

(g) Quibus pro tantis rebus, Quirites, nullum ego a vobis præmium virtutis, nullum insigne honoris, nullum monumentum laudis postulabo, præterquam hujus diei memoriam sempiternam. In animis ego vestris omnes triumphos meos, omnia ornamenta honoris,

monumenta gloriæ, laudis insignia, condi et collocari volo. Nihil me mutum potest delectare, nihil tacitum, nihil denique ejusmodi, quod etiam minus digni assequi possint. Memoria vestra, Quirites, nostræ res alentur, sermonibus crescent, literarum monumentis inveterascent et corroborabuntur : eandemque diem intelligo, quam spero æternam fore, et ad salutem urbis, et ad memoriam consulatus mei propagatum : unoque tempore in hac re publica duos cives exstitisse, quorum alter fines vestri imperii, non terræ, sed cœli regionibus terminaret ; alter ejusdem imperii domicilium sedemque servaret.

(*h*) Quos libros utinam qui legent scire possint, quam invitus susceperim scribendos, quo facilius caream stultitiæ atque adrogantiæ crimine qui me mediis interposuerim Cæsaris scriptis. Constat enim inter omnes nihil tam operose ab aliis esse perfectum quod non horum elegantia commentariorum superetur. Qui sunt editi ne scientia tantarum rerum scriptoribus deesset, adeoque probantur omnium judicio ut præprepta non præbita facultas scriptoribus videatur. Cujus tamen rei major nostra quam reliquorum est admiratio : ceteri enim quam bene atque emendate, nos etiam quam facile atque celeriter eos perfecerit scimus. Erat autem in Cæsare quum facultas atque elegantia summa scribendi, tum verissima scientia suorum consiliorum explicandorum.

Latin.—II.

Three hours.

VIRGIL—Æneid II. HORACE—Odes I. II. CICERO—Speeches against Catiline, 1. 2. 3.

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

1. What is there peculiar in the declension of these words :—Vi, ope, prece, iste, filia, locus ?

2. Parse these verbs,—duint, liqueris, mallent, retudimus, revulsum, scitote, tetendit, torsisti.

3. (*a*) Scan and note fully any peculiarities in—

    Ædificant sectaque intexunt abiete costas.

    Panthus Othryades, arcis Phœbique sacerdos.

    (*b*) Scan and name these lines,—

    Perrupit Acheronta Herculeus labor.

    Sic tristes affatus amicos.

    Hostile aratrum exercitus insolens.

    Vocatus atque non vocatus audit.

4. To whom and why are the following epithets applied by Virgil or Horace :—Dædaleus, Erycina, Larissæus, Lydius, Neptunia, Panthoïdes, Semeleïus, Tritonia ?

5. Where and what are Hadria, Liris, Massilia, Philippi, Scyros, Tenedos ?

6. Translate and explain fully the construction in—Cœloque educere certant — Perfusus sanie vittas — Moriamur et in media arma ruamus — Aut Graiis servitum matribus ibo — Velox amœnum Lucretilem mutat Lycæo Faunus — Quem nigro compulerit Mercurius grege — Desine mollium tandem querelarum — Abiit, excessit, evasit, erupit.

7. Derive fully and explain the formation of these words,—Acernus, ales, auctumnus, cervix, exiguus, ilicet, ineluctabilis, pavito, stuppeus, terebrare, tropæa, veneficus.

8. Explain Attalicæ conditiones, criminosi iambi, Mercuriales viri, pellitæ oves, Pontica pinus, sæva Pelopis domus.

9. Translate and explain and refer to context—

    Sanguine placastis ventos et virgine cæsa ;

    Jura fidemque supplicis erubuit ;

    Trojæ et patriæ communis Erinnys ;

    Uda mobilibus pomaria rivis ;

    Tu secanda marmora locas sub ipsum funus ;

    Dum res et ætas et Sororum fila trium patiuntur atra.

10. Under what circumstances and on what days were the three speeches against Catiline delivered ?

11. Translate and explain—

    Nihilne te movet hic munitissimus habendi Senatum locus ?

    Qui dies futurus esset a. d. VI. Kal. Nov.

    Ruinas fortunarum Idibus proximis impendere senties.

    Collectum ex rusticis decoctoribus delectum.

    Qui in vetere ære alieno vacillant, qui vadimoniis, judiciis, proscriptionibus bonorum defatigati.

    Manicatis et talaribus tunicis, velis amicti non togis.

12. Write notes on aquila, municipes, prætoria cohors, supplicatio, tumultus, vectigalia.

13. Linum incidimus. Give and explain the principal words relating to letter writing among the Romans.

14. Quote from memory, and render into English, any half dozen brief expressions that have struck you as felicitous in your Horace or Virgil.

Latin.—III.

COMPOSITION.

Three hours.

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

Translate into Latin Prose—

Early next morning, Cicero sent for Lentulus, Cethegus, and the others who had signed the Allobrogian credentials. Ignorant of what had passed, they came; and the Consul, holding the Prætor Lentulus by the hand, and followed by the rest, went straight to the Temple of Concord, where he had summoned the Senate to meet. Vulturcius and the Allobrogian Envoys were now brought in, and the Prætor Flaccus produced the papers which he had seized. The evidence was brought so clearly to a point, that the Conspirators confessed their handwriting; and the Senate decreed that Lentulus should be deprived of his Prætorship, and that all the prisoners should be put into the hands of eminent Senators, who were to be answerable for their persons. Then Cicero went forth into the Forum, and in his Third Speech detailed to the assembled People all the circumstances which had been discovered. Not only had two Knights been commissioned by Cethegus to kill Cicero in his chamber, a fate which the Consul eluded by refusing them admission, but it had also been resolved to set the City on fire in twelve places at once, as soon as it was known that Catiline and Mallius were ready to advance at the head of an armed force. Lentulus, who belonged to the great Cornelian Gens, had been buoyed up by a Sibylline prophecy, which promised the dominion over Rome to "three Cs:" he was to be the third Cornelius after Cornelius Cinna and Cornelius Sylla.

Translate into Latin Elegiacs—

I will lift up mine eyes unto the hills,
From whence cometh my help.
My help cometh from the Lord,
Which made heaven and earth.
He will not suffer thy foot to be moved:
He that keepeth thee will not slumber.
Behold, He that keepeth Israel
Shall neither slumber nor sleep.
The Lord is thy keeper:
The Lord is thy shade upon thy right hand.
The sun shall not smite thee by day;
Nor the moon by night.
The Lord shall preserve thee from all evil:
He shall preserve thy soul.
The Lord shall preserve thy going out and thy coming in
From this time forth, and even for evermore.

Or into Latin Hexameters—

In vain do men
The heavens of their fortune's fault accuse,
Sith they know best what is the best for them:
For they to each such fortune do diffuse
As they do know each can most aptly use.
For not that which men covet most is best,
Nor that thing worst, which men do most refuse;
But fittest is that all contented rest
With that they hold: each hath his fortune in his breast.
It is the mind that maketh good or ill,
That maketh wretch or happy, rich or poor;
For some that hath abundance at his will
Hath not enough, but wants in greater store;
And other that hath little asks no more,
But in that little is both rich and wise.
For wisdom is most riches.

Greek.—I.

1. Parse these words,—ἀποδαρέντα, ἠνείχετο, κεκλήσῃ, μιγείης, τιμηθεῖσα, ὑπισχνεῖτο, ὑφεῖσα, χρεών.

2. What feminines do you find employed for the following masculines :—βασιλεύς, δεσπότης, πόσις, τοκεύς ?

3. Compare ἀγαθὸς, ἀλγεινός, ἀσφαλής, πλησίος, ταχύς, πρεσβύς. What plural has the last in the sense of 'old men ?'

4. Write down 1 Aor. Inf. Mid. ἀναίνομαι, 3 Pl. Imp. Ind. Act. ἐάω, Perf. Inf. Pass. θίζω, 1 Sing. Pres. Opt. Act. (Attic) εὐδαιμονέω, 3 Sing. Perf. Imper. Pass. λαμβάνω, 3 Sing. Fut. Ind. τρέχω, 1 Sing. Fut. Ind. φεύγω.

5. Give the meaning and full derivation, and where necessary comment on the form of ἀναιδεία, αὐθάδης, διχοστατεῖν, εὐπετῶς, κογχυλιάτης, κυνῶπις, μιάστωρ, πανώλης, πελώριος, πηγεσίμαλλος, πουλυβότειρα, ὑποψία.

6. Explain what is meant by Attic Reduplication, Attraction, Crasis, a Desiderative Verb. Give one or two instances of each.

7. οὔ σε μὴ μεθῶ τινί — οὐ μὴ μεθήσεις τοῦδε. Translate and fully explain the construction in each case.

8. What do the following Homeric words signify, and what is the Attic equivalent of each :— ἐγχείας, ἔθεν, ἧχι, ἴδηαι, ὁμόσσῃ, σεῖο.

9. Draw a rough outline of Peloponnesus, marking the chief towns and the political divisions in Xenophon's time.

10. Scan these lines, noting and explaining any peculiarities :—

    Αἰδοῖός τέ μοί ἐσσι, φίλε ἑκυρὲ, δεινός τε.

    Ἄρνε δύω καὶ οἶναν εὔφρονα, καρπὸν ἀρούρης.

    Ζεὺς μέν που τό γε οἶδε καὶ ἀθάνατοι θεοὶ ἄλλοι.

    Σπείραις ἔσωζε πολυπλόκοις ἄϋπνος ὤν.

    Εἰ θεοὺς νομίζεις τοὺς τότ' οὐκ ἄρχειν ἔτι.

    Αἰγεῦ, παρ' ἐμοὶ δεδόκησαι.

11. Translate and explain fully, referring to the context if you can,—

    (a) Οἴομαι γὰρ ἂν ἡμᾶς τοιαῦτα παθεῖν, οἷα τοὺς ἐχθροὺς οἱ θεοὶ ποιήσειαν.

    (b) Δέδοικα μὴ ὥσπερ οἱ Λωτοφάγοι ἐπιλαθώμεθα τῆς οἰκάδε ὁδοῦ.

    (c) Τόσσον τίς τ' ἔπι λεύσσει ὅσον τ' ἔπι λᾶαν ἵησιν.

    (d)   Τεττίγεσσι ἐοικότες, οἵ τε καθ' ὕλην
    Δένδρῳ ἐφεζόμενοι ὄπα λειριόεσσαν ἱεῖσιν.

    (e) Ἐκ τοῦδ' ἀναψόμεσθα πρυμνήτην κάλων.

    (f)   εἰ δὲ γῆς ἐπ' ἐσχάτοις
    Ὅροισιν ᾤκεις, οὐκ ἂν ἦν λόγος σέθεν.

12. Give the Greek for an army, a boundary, a generation, a way ; I arrange, I burn, I say, I see ; and an English derivative from each.

13. Put the following sentences into Greek, unaccentuated :—

    (a) For the sake of gain he was doing the same things as his father.

    (b) I would not use thy friends, therefore offer them not.

    (c) Let us follow Xenophon, said they, whithersoever he may lead us.

    (d) But the soldiers cried out, that they would go whithersoever he led.

    (e) The javelin men flung (ἀκοντίζω) too short a distance to reach the slingers.

    (f) He asked Apollo, to whom of the Gods praying he would go best and most honourably on the journey he meditates (ἐπινοέω).

14. Translate and accentuate each of the following. Each should form a complete Iambic line :—

    (a) For a bad man's gifts have not benefit (ὄνησις).

    (b) There-came-into me pity (οἶκτος) if these-things shall-happen.

    (c) But gold (is) stronger than-ten-thousand words to mortals.

    (d) For dear were-they, but an unhappy woman (am) I.

Greek.—II.

Four hours.

Homer—Iliad III.   Euripides—Medea.   Xenophon—Anabasis III.

M. H. Irving, *M.A., Examiner.*

[Candidates should aim at two things ; viz., that their translations should be in pure idiomatic English ; and that they should reproduce the precise meaning, and when possible the exact form, of the original. They may add brief explanatory notes on the margin if they deem it necessary.]

Translate—

(A) " Ζεῦ πάτερ,"Ιδηθεν μεδέων, κύδιστε μέγιστε,
    'Ηέλιός θ' ὃς πάντ' ἐφορᾷς καὶ πάντ' ἐπακούεις,
    Καὶ ποταμοὶ καὶ γαῖα, καὶ οἳ ὑπένερθε καμόντας
    'Ανθρώπους τίνυσθον, ὅ τίς κ' ἐπίορκον ὀμόσσῃ,
    'Υμεῖς μάρτυροι ἔστε, φυλάσσετε δ' ὅρκια πιστά.
    Εἰ μέν κεν Μενέλαον 'Αλέξανδρος καταπέφνῃ,
    Αὐτὸς ἔπειθ' 'Ελένην ἐχέτω καὶ κτήματα πάντα,
    'Ημεῖς δ' ἐν νήεσσι νεώμεθα ποντοπόροισιν·
    Εἰ δέ κ' 'Αλέξανδρον κτείνῃ ξανθὸς Μενέλαος,
    Τρῶας ἔπειθ' 'Ελένην καὶ κτήματα πάντ' ἀποδοῦναι,
    Τιμὴν δ' 'Αργείοις ἀποτινέμεν ἥν τιν' ἔοικεν,
    "Η τε καὶ ἐσσομένοισι μετ' ἀνθρώποισι πέληται.
    Εἰ δ' ἂν ἐμοὶ τιμὴν Πρίαμος Πριάμοιό τε παῖδες
    Τίνειν οὐκ ἐθέλωσιν 'Αλεξάνδροιο πεσόντος,
    Αὐτὰρ ἐγὼ καὶ ἔπειτα μαχήσομαι εἵνεκα ποινῆς
    Αὖθι μένων, εἵως κε τέλος πολέμοιο κιχείω."

(B) 'Απορουμένοις δ' αὐτοῖς προσελθών τις ἀνὴρ 'Ρόδιος εἶπεν· " 'Εγὼ θέλω, ὦ ἄνδρες, διαβιβάσαι ὑμᾶς κατὰ τετρακισχιλίους ὁπλίτας, ἂν ἐμοὶ ὧν δέομαι ὑπηρετήσητε καὶ τάλαντον μισθὸν πορίσητε." 'Ερωτώμενος δέ, ὅτου δέοιτο, " 'Ασκῶν," ἔφη, " δισχιλίων δεήσομαι· πολλὰ δ' ὁρῶ [ταῦτα] πρόβατα καὶ αἶγας καὶ βοῦς καὶ ὄνους, ἃ ἀποδαρέντα καὶ φυσηθέντα ῥᾳδίως ἂν παρέχοι τὴν διάβασιν. Δεήσομαι δὲ καὶ τῶν δεσμῶν, οἷς χρῆσθε περὶ τὰ ὑποζύγια· τούτοις ζεύξας τοὺς ἀσκοὺς πρὸς ἀλλήλους, ὁρμίσας ἕκαστον ἀσκόν, λίθους· ἀρτήσας καὶ ἀφεὶς ὥσπερ ἀγκύρας εἰς τὸ ὕδωρ, διαγαγὼν καὶ ἀμφοτέρωθεν δήσας, ἐπιβαλῶ ὕλην καὶ γῆν ἐπιφορήσω. "Οτι μὲν οὖν οὐ καταδύσεσθε, αὐτίκα μάλα εἴσεσθε· πᾶς γὰρ ἀσκὸς δύο ἄνδρας ἕξει τοῦ μὴ καταδῦναι· ὥστε δὲ μὴ ὀλισθάνειν, ἡ ὕλη καὶ ἡ γῆ σχήσει." 'Ακούσασι ταῦτα τοῖς στρατηγοῖς τὸ μὲν ἐνθύμημα χάριεν ἐδόκει εἶναι, τὸ δ' ἔργον ἀδύνατον.

(C) 'Ω πατρίς, ὦ δῶμά τ' ἐμόν, μὴ δῆτ' ἄπολις γενοίμαν τὸν ἀμαχανίας ἔχουσα δυσπέρατον αἰῶν' οἰκτροτάτων ἀχέων. θανάτῳ θανάτῳ πάρος δαμείην ἀμέραν τάνδ' ἐξανύσασα· μόχθων δ' οὐκ ἄλλος ὕπερθεν ἢ γᾶς πατρίας στέρεσθαι. Εἴδομεν, οὐκ ἐξ ἑτέρων μύθων ἔχομεν φράσασθαι· σὲ γὰρ οὐ πόλις, οὐ φίλων τις ᾤκτισεν παθοῦσα δεινότατον παθέων. 'Αχάριστος ὄλοιθ' ὅτῳ πάρεστι μὴ φίλους τιμᾶν, καθαρὰν ἀνοίξαντα κλῇδα φρενῶν· ἐμοὶ μὲν φίλος οὔποτ' ἔσται.

(D) Ξυλλήψομαι δὲ τοῦδέ σοι κἀγὼ πόνου·
    πέμψω γὰρ αὐτῇ δῶρ', ἃ καλλιστεύεται
    τῶν νῦν ἐν ἀνθρώποισιν, οἶδ' ἐγώ, πολύ,
    λεπτόν τε πέπλον καὶ πλόκον χρυσήλατον
    παῖδας φέροντας. ἀλλ' ὅσον τάχος χρεὼν
    κόσμον κομίζειν δεῦρο προσπόλων τινά.
    εὐδαιμονήσει δ' οὐχ ἕν, ἀλλὰ μυρία,
    ἀνδρός τ' ἀρίστου σοῦ τυχοῦσ' ὁμευνέτου,
    κεκτημένη τε κόσμον ὅν ποθ' "Ηλιος
    πατρὸς πατὴρ δίδωσιν ἐκγόνοισιν οἷς.
    λάζυσθε φερνὰς τάσδε, παῖδες, ἐς χέρας,
    καὶ τῇ τυράννῳ μακαρίᾳ νύμφῃ δότε
    φέροντες· οὔτοι δῶρα μεμπτὰ δέξεται.

(E) Τί οὖν; εἴποι τις ἄν, σὺ τοσοῦτον ὑπερῆρας τοὺς ἄλλους ῥώμῃ καὶ τόλμῃ ὥστε πάντα ποιεῖν αὐτός; οὐ ταῦτα λέγω, ἀλλ' οὕτως ἐπεπείσμην μέγαν εἶναι τὸν κατειληφότα κίνδυνον τὴν πόλιν, ὥστ' οὐκ ἐδόκει μοι χώραν οὐδὲ πρόνοιαν οὐδεμίαν τῆς ἰδίας ἀσφαλείας διδόναι, ἀλλ' ἀγαπητὸν εἶναι, εἰ μηδὲν παραλείπων τις ἃ δεῖ πράξειεν. ἐπεπείσμην δ' ὑπὲρ ἐμαυτοῦ, μήτε γράφοντ' ἂν ἐμοῦ γράψαι βέλτιον μηδένα, μήτε πράττοντα πρᾶξαι, μήτε πρεσβεύοντα πρεσβεῦσαι προθυμότερον μηδὲ δικαιότερον.

(F.) Put into Greek—

If the tree had not fallen, my mistress Medea would not have persuaded the girls to slay their father.

Proxenus sent for Xenophon from home, and promised him that if he came he would introduce him to Cyrus.

The mist which the south wind pours down on the mountains is not pleasant to the shepherd, but to the thief is better than night.

Nine and twenty knights of fame had their shields and spears in the hall.

French.

MOLIÈRE—Le Bourgeois Gentilhomme. DE BONNECHOSE—Lazare Hoche. GRAMMAR and COMPOSITION.

Four hours.

M. H. IRVING, *Esq., M.A., Examiner.*

1. Translate—

Madame Jourdain. Vous êtes fou, mon mari, avec toutes vos fantaisies; et cela vous est venu depuis que vous vous mêlez de hanter la noblesse.

M. Jourdain. Lorsque je hante la noblesse, je fais paraître mon jugement; et cela est plus beau que de hanter votre bourgeoisie.

Madame Jourdain. Çamon vraiment! il y a fort à gagner à fréquenter vos nobles, et vous avez bien opéré avec ce beau monsieur le comte, dont vous vous êtes embéguiné!

M. Jourdain. Paix; songez à ce que vous dites. Savez-vous bien, ma femme, que vous ne savez pas de qui vous parlez, quand vous parlez de lui? C'est une personne d'importance plus que vous ne pensez, un seigneur que l'on considère à la cour, et qui parle au roi tout comme je vous parle. N'est-ce pas une chose qui m'est tout à fait honorable, que l'on voie venir chez moi si souvent une personne de cette qualité, qui m'appelle son cher ami, et me traite comme si j'étais son égal? Il a pour moi des bontés qu'on ne devinerait jamais; et, devant tout le monde, il me fait des caresses dont je suis moi-même confus.

Madame Jourdain. Oui, il a des bontés pour vous, et vous fait des caresses; mais il vous emprunte votre argent.

M. Jourdain. Eh bien! ne m'est-ce pas de l'honneur de prêter de l'argent à un homme de cette condition-là? et puis-je faire moins pour un seigneur qui m'appelle son cher ami?

2. Translate—

Les canonniers toulonnais firent feu sur elle et donnèrent l'éveil à une chaloupe anglaise qui accabla la division d'Humbert, sous les boulets et les obus. Il fallut se retirer: et Hoche rallia les républicains et commença la retraite. La journée semblait perdue: l'unique chance de succès dépendait maintenant de l'attaque de droite, commandée par Ménage et entreprise sous la direction du transfuge David. Elle présentait d'immenses difficultés. La mer en fureur battait le roc bastionné au pied duquel David amena la colonne républicaine, protégée par le bruit des flots furieux et par les ténèbres. Ménage et sa troupe escaladent le roc, s'accrochant aux ronces, aux arbrisseaux, se faisant des échelons de leurs baïonnettes qu'ils enfoncent dans les crevasses, et s'aidant, se poussant les uns les autres, ils parviennent au sommet. Le parapet restait à gravir et, au cri d'une sentinelle, ils pouvaient tous être précipités dans la mer. Mais ils entendent des paroles amies: David avait des complices dans le fort, et ceux-ci tendent la main aux républicains qui s'élancent sur la plate-forme. Les royalistes, qui s'étaient crus vainqueurs, sont surpris et massacrés, les canonniers toulonnais pris à revers sont tués sur leurs pièces: tout ce qui résiste est égorgé, et Ménage plante sur la muraille le drapeau tricolore. Hoche l'aperçoit et rebrousse aussitôt chemin; il entre sans résistance dans la forteresse, embrasse Ménage, le nomme général de brigade et dispose tout pour compléter sa victoire.

3. Retranslate the following sentences :—

(a) After being kept in prison three months he came out it with his clothes in rags.

(b) Whatever my fate may be, let my country be saved, and I abide contented.

(c) Glory does not shelter us from proscription, but immortalizes the proscribed.

(d) Nicole is right, and her opinion is better than yours.

(e) That man makes a milch-cow of you.

(f) There are no expenses that I would not incur, if thereby I could find the road to her heart.

4. Translate, explain, and refer to context,—
    (a) Pourquoi toujours des bergers ? on ne voit que cela partout.
    (b) Vous avez le caquet bien affilé pour une paysanne.
    (c) Est-ce que nous sommes nous autres de la côté de Saint Louis ?
    (d) Avant de l'abattre le Comité l'abreuva de dégouts.
    (e) Il tenait dans ses mains tous les fils de la trame ourdie par lui avec persévérance.
    (f) Elle entendit sortir du fond de l'abîme qui engloutissait ses flottes ce cri vengeur, Quiberon, Quiberon.

5. Give the French for the following :—Careful, deaf, to distrust, grateful, to hinder, jailer, lame, to open, rainbow, scaffold, struggle, to watch.

6. Write notes on the derivation and illustrate the formation of aveugle, épouser, oreille, taire.

7. Give the English for céans, ciguë, deviner, dindon, empiéter, essor, estropié, mâchoire, navrer, pimpesouée, rouille, sceller.

8. In the biography of Hoche certain names of months occur differing from those now in use. Name these and give an account of them.

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9. Put the following into French—
    (a) Neither of us has yet started from town.
    (b) At their house, folks can do just what they please.
    (c) The loveliest woman in the world, fairer than Helen of Troy ever was.
    (d) Please, wait till I've read the letter you've brought me.
    (e) Man wants but little here below, nor wants that little long.
    (f) He made his army make new dispositions.

10. Write down the present and future indicative of pouvoir and vendre, the subjunctive present and past of vouloir and taire, the preterite definite and the imperative of aller and lire.

11. Give the feminine of doux, chanteur, frais, roux, sec, turc; and the plural of œil, éventail, peau, tout.

12.   (a) When is *whom* to be translated by que and when by qui ?
    (b) How does pauvre differ in meaning according as it precedes or follows a noun ?
    (c) Name four verbs followed by à and four followed by de with the infinitive.

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13. Translate—

Pendant toute cette conversation qui décidait de l'avenir de plusieurs personnes, nous étions restés à cheval et la vieille femme n'avait pas dit un mot. Tout à coup elle fondit en larmes, et se tournant vers Don Guillermo, Vous êtes dans votre droit, lui dit-elle, mais ayez pitié de ma vieillesse malheureuse. C'est mon enfant unique, et cependant il y a long-temps que j'ai prévu qu'il ne serait pas la consolation de mes vieux jours. Il n'a pas suivi l'exemple de son père. Mais ces messieurs ne veulent-ils pas mettre pied à terre et se reposer dans mon humble maison ? ajouta-t-elle avec cette politesse que n'oublie jamais celui qui peut prétendre de loin ou de près à l'origine espagnole. Don Guillermo consentit à entrer un instant. Oui, continua-t-il, son père était un homme estimable, comment son fils en est-il venu là ?—Ah, monsieur, il a perdu tout son bien !—Sans la lettre de son père mourant je ne lui aurais fait de crédit, mais comment celui-ci, qui devait connaître son mauvais caractère, a-t-il pu me le recommander ?—Ah, monsieur, ce n'est pas mon mari qui a écrit cette lettre, c'est mon fils lui-même, qui, mal conseillé par un de ses amis, a contrefait son écriture.—S'il en est ainsi, tu as bien mérité d'être puni, dit Don Guillermo au jeune homme. Et vous, senora, ajouta-t-il en se tournant vers la mère, consolez-vous. Ce jeune homme avec la conduite qu'il tient ne peut vous être d'aucun secours. Je vais m'occuper de lui ; je lui ferai apprendre à travailler et à vivre comme un homme raisonnable, et peut-être un jour vous reviendra-t-il corrigé. Tu vas venir avec moi au Texas, dit-il au jeune homme. —Partout où il vous plaira, monsieur.

14. Translate into French—

"Long live the King ! long live the union ! the new union, the holy league !" cried the assembly.

"It has come then !" cried Cinq-Mars with enthusiasm : "it has come—the most glorious day of my life ! Oh ! youth, youth from century to century called frivolous and improvident ! of what will men now accuse thee, when they behold conceived, ripened ready for execution, under a chief of twenty-two, the most vast, the most just, the most beneficial of enterprises ! My friends, what is a great life but a thought of youth executed by mature age ? Youth looks fixedly into the future with its eagle glance, traces there a broad plan,

lays the foundation-stone ; and all that our entire existence can do afterwards is to approximate to that first design. Oh when can great projects arise if not when the heart beats vigorously in the breast! The mind is not sufficient, it is but an instrument."

A fresh outburst of joy had followed these words, when an old man with a white beard stood forward from the throng.

German.

SCHILLER—Maria Stuart.

Three hours and a half.

Rev. R. D. POULETT-HARRIS, M.A., *Examiner.*

1. Translate the following passages—

(A) Doch wusste sie aus diesen engen Banden
Den Arm zu strecken in die Welt, die Fackel
Des Bürgerkrieges in das Reich zu schleudern;
Und gegen unsre Königin, die Gott
Erhalte ! Meuchelrotten zu bewaffnen.
Erregte sie aus diesen Mauern nicht
Den Böswicht Parry und den Babington
Zu der verfluchten That des Königmords ?
Hielt dieses Eisengitter sie zurück,
Das edle Herz des Norfolk zu umstricken ?
Für sie geopfert fiel das beste Haupt
Auf dieser Insel unterm Henkerbeil.

(B) Graf, ich beklage diese edeln Herrn,
Die ihr galanter Eifer über Meer
Hieher geführt, dass sie die Herrlichkeit
Des Hofs von St Germain bei mir vermissen.
Ich kann so prächt'ge Götterfeste nicht
Erfinden, als die königliche Mutter
Von Frankreich.— Ein gesittet fröhlich Volk,
Das sich, so oft ich öffentlich mich zeige,
Mit Segnungen um meine Sänfte drängt :
Dies ist das Schauspiel, das ich fremden Augen
Mit ein'gem Stolze zeigen kann.

(C) Melvil, die letzten Wünsche für die Meinen
Leg' ich in Eure treue Brust—Ich segne
Den allerchristlichsten König, meinen Schwager,
Und Frankreichs ganzes königliches Haus—
Ich segne meinen Ohm, den Cardinal,
Und Heinrich Guise, meinen edeln Vetter.
Ich segne auch den Papst, den heiligen
Statthalter Christi, der mich wieder segnet,
Und den kathol'schen König, der sich edelmüthig
Zu meinem Retter, meinem Rächer anbot—
Sie Alle stehn in meinem Testament :
Sie werden die Geschenke meiner Liebe,
Wie arm sie sind, darum gering nicht achten.

2. By whom are the above speeches uttered ? State briefly what you know about each of the persons mentioned in them.

3. Translate—

ELIZABETH.

Was gibt's, Mylord von Kent ? Was für ein Auflauf
Erregt die Stadt—Was ist es ?

KENT.
Königin,
Es ist das Volk, das den Palast umlagert,
Es fordert heftig dringend, dich zu sehn.

ELIZABETH.

Was will mein Volk ?

KENT.

Der Schrecken geht durch London,
Dein Leben sey bedroht, es gehen Mörder
Umher, vom Papste wider dich gesendet ;

> Verschworen seyen die Katholischen,
> Die Stuart aus dem Kerker mit Gewalt
> Zu reissen und zur Königin auszurufen.
> Der Pöbel glaubts und wüthet. Nur das Haupt
> Der Stuart, das noch heute fällt, kann ihn
> Beruhigen.

ELIZABETH.

Wie ? Soll mir zwang geschehn ?

KENT.

Sie sind entschlossen, eher nicht zu weichen,
Bis du das Urtheil unterzeichnet hast.

4. Decline *ein edles Herz*, and *der gute Mann*.

5. Give the general rule for the declension of feminine substantives; and that for masculines ending in e.

6. Decline with the definite article the nouns *Mauer, Hof, Mutter, Auge, Ritter, Baum*.

7. Parse *wusste, erregte, fiel, segne, werden achten, sey bedroht;* and give the principal parts of *weichen, unterzeichnen, gehen, lassen, können, halten*.

8. Conjugate the present indicative of each of the three last-mentioned words. Give the present conditional of *weichen*, and the future perfect passive of *unterzeichnen* (3rd pers. sing. with *es*.)

9. Turn into German the following phrases :—

> (1.) We would have called-upon *(besuchen)* you, if we had had time.
> (2.) Will you take a cup of tea ? No, I thank you.
> (3.) My friend has told me that he will buy an estate *(Landgut.)*
> (4.) I have not seen her for a week past.
> (5.) What sort of people are those ?

10. Translate the following from the Süd-Australische Zeitung of April 1st, 1873 :—

> Aus New York schreibt man : Das Barnum'sche Museum ist am ersten Weihnachtstage zum dritten Male niedergebrannt. Das Feuer, welches durch den Heizapparat entstanden war, verbreitete sich auch auf die umliegenden Gebäude, so dass die Feuerwehr* ihre ganze Aufmerksamkeit auf diese richten und die wilden Thiere des Museums, die beim Herannahen der Flammen ein fürchterliches Gebrüll erhoben, von den Wärtern jedoch natürlich nicht befreit werden durften, ihrem Schicksale überlassen musste. Alle Thiere wurden buchstäblich in ihren Käfigen geröstet. Unter den umliegenden Gebäuden die ebenfalls zerstört wurden befindet sich auch eine Kirche. Der angerichtete Schaden ist ausserordentlich.

* Fire brigade.

11. Translate into German—

> In the year 1603 the great Queen died. This year is in many respects one of the most remarkable epochs of our history. It was then that both Scotland and Ireland became parts of the same empire with England. Both nations had been subjugated by the Plantagenets, but neither had submitted patiently to the yoke. Scotland had long since recovered her independence, and was now united to the southern part of the island in a manner which rather flattered than wounded the national pride. Ireland had struggled fiercely against the invaders ; but her half-savage chieftains had submitted one after another to the lieutenants of the Tudors. Scarcely had James mounted the English throne when the last O'Donnell, and the last O'Neil, who had held the rank of independent princes, kissed his hand at Whitehall.

Euclid, Books I.—IV. inclusive. Arithmetic.

Four hours.

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

1. If a side of any triangle be produced, the exterior angle is equal to the two interior and opposite angles.
   If the exterior be equal to either interior and opposite angle together with the interior and adjacent angle, what is the triangle ?

2. Three straight lines meet in a point and each when produced bisects the angle between the other two. Find the angles at which the three lines meet.

3. If a right-angled triangle has one acute angle double of the other, then the hypothenuse is double of the shorter side.

4. If a straight line be divided into two equal and also into two unequal parts, the squares on the two unequal parts are together double of the square on half the line, and of the square on the line between the points of section.

5. Given two unequal lines. It is required to produce the less so that the rectangle on it and the whole line produced shall equal the square on the greater.

6. If from the vertex of an isosceles triangle a line be drawn cutting the base, the difference of the squares on this line and on either side of the triangle is equal to the rectangle under the segments of the base.

7. The diameter is the greatest straight line in a circle, and of the rest that which is nearer to the centre is greater than that which is more remote.

8. Upon a straight line describe a segment of a circle containing an angle equal to a given rectilineal angle.

9. Describe a circle about a given triangle. State the Corollary.

10. Describe a circle passing through two given points and touching a given line.
In what case is this impossible?

[All the working of every Arithmetic question must be sent up or no credit will be given for the answer.]

1. Find the cost in francs per Kilometre of a Railway that costs £5000 a mile. [£1 = 25·6 francs, one Kilometre = 39,371 inches.]

2. A starts at 10 A.M. to walk from the Post Office to New Norfolk, 22 miles, at the rate of $3\frac{3}{4}$ miles an hour. B starts after him at 10·45 A.M. at the rate of 4 miles an hour. If both continue at the same pace, will he catch A before he reaches New Norfolk? If so, when? and at what distance from New Norfolk?

3. If an ounce of gold be worth £4·0099; find the value of a bar weighing 1·683 pounds.

4. Standard gold contains $\frac{1}{12}$ part of alloy. A person buys 3000 ounces of what he believes to be standard gold, at £3 14s. 7½d. an ounce, but afterwards finds that ⅛ of it is alloy. What does he gain or lose by selling what standard gold he has at £3 17s. 10½d. : the surplus alloy being valueless ?

5. Reduce £1 18s. 9¾d. to the decimal of Five Guineas.

6. Simplify—
$$\frac{11\frac{1}{9} - 2\frac{1}{4}}{6\frac{1}{4} - 3\frac{1}{16}} \times \frac{3\frac{1}{2} - 1\frac{1}{2}}{2\frac{1}{8} - 1\frac{3}{16}} \div \frac{3\frac{1}{7} + 1\frac{1}{63}}{2\frac{1}{5} + 1\frac{2}{9}}$$
and reduce result to a decimal, correct to 5 places.

7. A can do a certain piece of work in 4 days, B can do $\frac{7}{15}$ of it in 3 days, C $\frac{5}{9}$ in $5\frac{1}{4}$ days. How long will they take to do it all working together ?

8. Extract to four places of decimals the square root of 801·375.

Algebra.

Three hours.

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

1. Simplify $\left\{\dfrac{1}{x^2 - a^2} - \dfrac{1}{x^2 + a^2} - \dfrac{\dfrac{1}{x+a} - \dfrac{1}{x-a}}{\dfrac{x^2 + a^2}{a}}\right\}^{\frac{1}{2}}$

2. Simplify $\dfrac{x^4 - 9x^3 + 7x^2 + 9x - 8}{x^4 + 7x^3 - 9x^2 - 7x + 8}$.   Justify any mode you adopt.

3. Prove that the sum of the cubes of any three consecutive integers is divisible by three times the middle number.

4. State the Binomial Theorem. Give Colenso's proof of it when the index is a positive integer.

5. If 19 lbs. of gold weigh in water 18 lbs., and 10 lbs. of silver weigh 9 lbs. in water, find the quantity of gold and of silver in a mass of gold and of silver that weighs 106 lbs. in air and 99 lbs. in water.

6. Extract the 4th root of $16x^6 - 96x^{\frac{9}{2}}y^{\frac{3}{4}} + 216x^3y^{\frac{3}{2}} - 216x^{\frac{3}{2}}y^{\frac{9}{4}} + 81y^3$.

7. Solve the equation
$$\frac{1}{x} + \frac{1}{y} + \frac{1}{z} = 1$$
$$\frac{1}{2x} + \frac{1}{4y} + \frac{4}{z} = 1$$
$$\frac{5}{3x} + \frac{3}{4y} - \frac{1}{2z} = 1$$

8. Find 5 numbers in Arithmetical Progression such that their sum is 55 and the sum of their squares 765.

9. Insert m geometric means between a and b.

10. If a, b, c, d are proportionals and a the greatest of the four, prove that $a^2 + d^2$ is greater than $b^2 + c^2$.

11. Solve $x^2 + y^2 + z^2 = 65$
    $x(y + z) = 40$
    $yz = 12$

12. Two cubical blocks of marble cost £360 at 12s. 6d. per cubic foot, and the sum of the lengths of the edges is 12 feet : find the length of each.

13. How many words of six letters can be made out of the 26 letters of the alphabet with two of the 5 vowels in each word ?

Higher Mathematics.

Four hours.

EUCLID—VI. XI.   LOGARITHMS.   TRIGONOMETRY.

M. H. IRVING, M.A., Examiner.

1. If two triangles have one angle of the one equal to one angle of the other and the sides about two other angles proportionals : then if each of the remaining angles be less than a right angle, the triangles shall be equiangular.

2. Bisect a given triangle by a line drawn parallel to the base.

3. In a right-angled triangle a perpendicular is drawn from the right angle to the hypotenuse. State and prove the three resulting proportions.

4. Prove that if two sides of a trapezium be parallel its diagonals cut one another in the same ratio.

5. The rectangle contained by the diagonals of a quadrilateral inscribed in a circle is equal to the sum of the rectangles contained by the opposite sides.

6. If two straight lines meeting each other be parallel to two others that meet and are not in the same plane with the first two, the first two and the second two shall contain equal angles.

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

8. Define a logarithm. Find the relation between the logarithms of the same number to different bases.

9. Given in the common system $\log 2 = \cdot30103$ and $\log 75 = 1\cdot8750613$, calculate $\log 3$, $\log \cdot\dot{6}$, $\log \sqrt{\cdot375}$, $\log 5$.

10. Prove a formula for the cosine of the difference of two angles. Hence find $\cos 15°$.

11. Given $\tan A = \dfrac{pm + qn}{pn - qm}$, calculate the other Trigonometrical Ratios.

12. Prove that $2 \tan^{-1} \frac{1}{2} = \tan^{-1} \frac{4}{3}$.

13. Shew that $\sin 5 A \operatorname{cosec}^2 A \sec A - \cos 5 A \sec^2 A \operatorname{cosec} A = 8 \cot 2A$, and that in any triangle $\cos^2 A + \cos^2 B + \cos^2 C + 2 \cos A \cos B \cos C = 1$.

14. In any triangle the line drawn to the base bisecting the angle C is $\dfrac{2ab \cos \dfrac{C}{2}}{a + b}$

15. Find the angles and the area of a triangular field whose sides are 33, 31, and 14·4 chains.

16. Calculate formulæ for the regular polygon of n sides circumscribed about and also for that inscribed in a circle.

   From the latter of these deduce the area of a circle. Justify any assumption you make. Find the ratio of the circumscribed to the inscribed Hexagon.

Natural Philosophy.

Three hours.

NEWTH—Mechanics and Hydrostatics.

M. H. IRVING, M.A., Examiner.

1. Seven forces act on a point. The angle between any two consecutive forces is 45°. Forces a, c, e, g are each 5 pounds; b, d, and f 8 pounds each. Find the magnitude and the direction of the resultant.

2. A body weighing 48 pounds hangs by a cord 13 feet long, but is drawn aside from the vertical position by a force of 20 pounds acting horizontally. How many feet will it be deflected before there is equilibrium ?

3. Two rafters meet at an angle of 60°, and from their junction hangs a chandelier of 15 pounds weight : calculate the thrust along each rafter.

4. Prove that the resultant of two concurrent parallel forces is concurrent with the two forces and equal to their sum : that the resultant of two nonconcurrent is equal to their difference and concurrent with the greater : and that the moments of the components about a point in their resultant are in every case equal.

What will be the resultant if the two nonconcurrent forces be equal ?

5. Out of a square whose side is 24 inches is cut a circle of 6 inches radius, having its centre on one of the diagonals three inches off their intersection. Find the centre of gravity of the remaining figure, having given that the area of a circle equals $3\cdot1416 \times (radius)^2$.

6. Explain how the ratio of P to W is found in the first system of pulleys, the weight of the pulleys being taken into account.

A man who weighs $11\frac{1}{2}$ stone is holding up a certain weight by means of such a system in which the 3 pulleys weigh severally 3, 2, 1 pounds. He is standing on a weighing-machine and his apparent weight is only 107 pounds. What is the weight he is holding up ?

7. There is an inclined plane rising 88 in 137 feet. A weight of 253 lbs. is supported upon it by two equal forces, one horizontal and the other parallel to the plane. Calculate these forces.

8. If under the action of a uniform accelerating force a body passes through 105 feet in 5 seconds, and the final velocity is 35 feet : find the initial velocity and the acceleration.

9. A body is dropped from the top of a precipice 800 feet high, and at the same instant a second is projected upwards with such a velocity that they meet half way. Calculate the initial velocity of the second.

10. A lump of beeswax weighing 579 grains is stuck on to a crystal of quartz weighing 159 grains, and the whole weighs in water 78 grains : find the specific gravity of beeswax if that of quartz be $2\cdot65$.

11. A globe 6 inches in radius floats in water and is exactly half immersed. Find its weight in pounds and decimals of a pound to 3 places.

12. The specific gravity of tin being $7\cdot3$, find to the nearest inch the length of the edge of a cubical block weighing one ton.

13. If the barometer rises from 30 to $30\cdot5$ inches, what is the increase of pressure on a square foot?

14. Explain clearly the principle of the common pump and the limit to its action.

Chemistry.

(Text-book—The old Edition of Wilson's Chemistry.)

Three hours.

H. M. ANDREW, M.A., Examiner.

1. What is meant by a chemical compound ? Illustrate your answer by reference to two elements which exist in a state of mixture and also as a chemical compound.

2. Name the non-metallic elements, and give their symbols and combining equivalents.

3. What is meant by the specific heat of a substance ? State the connexion between the specific heat and the combining equivalents of elementary bodies. What element has the least specific heat ?

4. Describe an experiment which shews that 2 volumes of H combine with 1 of O to form water. If it be assumed that molecules of the elements in a gaseous condition occupy equal volumes, what would be the formula for water, and what would the combining equivalent of O be, that of H being assumed to be unity ?

5. State Graham's law of the diffusion of gases. Describe an experiment which illustrates it. How is the state of the atmosphere affected by this law ?

6. Four bottles contain CO_2, N, O and H respectively: how could you by two experiments determine them ?

7. Give the chemical names and symbols for galena, plaster of Paris, table salt, Epsom salts, saltpetre, green vitriol, clay, fire damp, choke damp.

8. Describe the preparation and uses of NO_5. Mention the most important salts of which it is the acid. (In describing the preparation use equations or diagrams to illustrate the description.) What weight of HO, NO_5 can be obtained from 1000 grs. of KO, NO_5 ?

9. Describe the preparation and use of HS. Mention the metals which are precipitated by it from acid solutions. In what form do they come down ? Shew by an equation or diagram the interchange of elements.

10. Two solutions contain a per- salt and a proto- salt of iron, respectively. How would you distinguish them ? State how you would detect arsenic in an organic mixture.

11. Describe the construction of the flame of a candle. What is the chemical use of the outer and middle cones respectively ? Illustrate your answer by supposing a piece of lead to be heated first in the outer, then in the inner flame on a piece of charcoal, and describing the appearance of the charcoal in each case.

12. What is a 'compound salt radical ?' Name the chief compounds of cyanogen, and give their symbols. A solution of cyanide of potassium is mixed with one of tartaric acid : shew by a diagram the decomposition which takes place. What is the nature of the resulting compound which is in solution ?

13. Give the principal compounds of formyle with their formulæ. Describe the preparation and properties of chloroform.

𝕮𝖍𝖊𝖔𝖗𝖞 𝖔𝖋 𝕸𝖚𝖘𝖎𝖈.

Three hours.

J. SUMMERS, Mus. B. Oxon, *Examiner.*

(The Candidates should be provided with a sheet of music paper.)

1. Name the following Intervals ; and what do they become when inverted?

> C to D
> D to A flat
> E to B sharp
> G to F flat
> C to E flat
> F to D sharp
> F to D flat
> E to E sharp
> E to F

2. Write down major common chords, and give their inversions, to F, B flat, A, C, D, B, E ; also the chords of the dominant seventh, with their inversions and resolutions, to C, G, B flat, A minor.

3. Write down six bars of duple, triple, compound common, and compound triple rhythm, varying the notes in each bar and marking the accents.

4. Correct the harmony in the following passage : —

5. Add Treble, Alto, and Tenor to the following Bass :—

6. Modulate from G to E flat, E flat to C minor, C minor to F minor, F minor to B flat, B flat to G.

7. Prepare the following discords of suspension :—

8. Describe the equal and unequal temperaments in tuning.

9. What have you to say respecting the works of John Sebastian Bach, and those of Verdi?

10. Who composed the Oratorios, "Israel in Egypt," "Mount of Olives," "Mose in Egitto," "S. Paul," the Operas "Don Giovanni," "Les Huguenots," "Faust?" and state your opinion of these works.

TASMANIAN COUNCIL OF EDUCATION.

Hobart Town, 4th April, 1872.

EXAMINATION FOR THE DEGREE OF ASSOCIATE OF ARTS, 1873.

THE Council of Education have directed the publication of the following Scheme of Examination for the Degree of Associate of Arts for the year 1873.

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.*

SKETCH of the Examination for the Degree of ASSOCIATE OF ARTS *for the Year* 1873.

ENGLISH.—The Candidate will be examined in *Cowper's Task, Book I.,* with Questions on the Etymology and Grammatical construction of the Language; in History of England, *Student's Hume, from Accession of William and Mary to Death of George III., Chapters* XXVII. *to* XXXIII. *inclusive;* 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 II.,* Horace, *Odes, Books I. and II.;* Cicero, *Orations against Catiline,* 1, 2, and 3. 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 III.;* Euripides, *Medea.* Homer's Iliad, *Book III.* Questions on the Language, and the historical and geographical allusions. A passage for translation from some other Greek author.

FRENCH.—Bonnechose, *Lazare Hoche* (Bibliothèque des Chemins de Fer); Molière, *Le Bourgeois Gentilhomme.* 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* 21*st proposition inclusive,* Plane Trigonometry, (Text Books—Colenso's Trigonometry, 1st Part, or Todhunter's Trigonometry for Beginners), and the use of Logarithms.

NATURAL PHILOSOPHY.—Newth's First Book of Natural Philosophy,—not including the Eighth and Ninth Chapters.

CHEMISTRY.—Inorganic Chemistry. Books recommended—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.—Books recommended—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. Text Books:— J. R. Dicksee's Linear Perspective for use of Schools, 8vo., (5s. Virtue), and R. S. Burn's Illustrated Drawing Book, 8vo., (2s., Ward & Lock).

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	2350
Standard for Second Class	1900
Standard for Third Class	1350

The Degree of Associate of Arts shall be open to persons of any age: but Candidates for that Degree above the age of nineteen years, who may take honors, shall be placed in separate class lists, and shall not be eligible for any Prizes that may be awarded by the Tasmanian Council of Education.

In determining the Classes, account will be taken of every part of the Examination; but no credit will be given for knowledge in any subject unless the Candidates show enough to satisfy the Examiners in that subject.

Every successful Candidate for the Degree of Associate of Arts shall receive a Certificate of his having obtained such Degree; and such Certificate shall be on parchment, under the Seal, and signed by the President of the Council. The Certificate shall specify the subjects in which the Candidate has passed, and the Class, if any, that he has attained.

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.
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.