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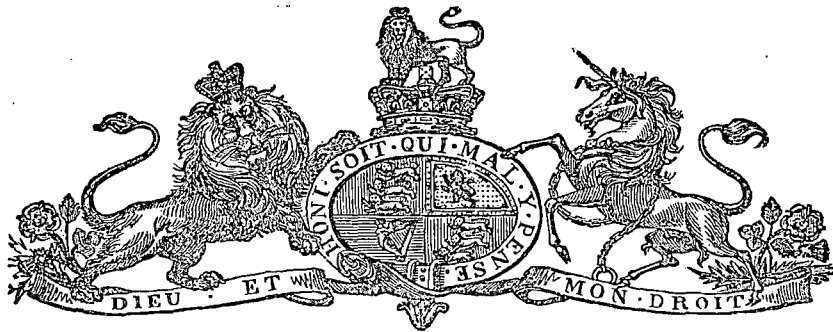
1884.

PARLIAMENT OF TASMANIA.

DEGREE OF ASSOCIATE OF ARTS :

REPORT FOR 1883.

Presented to both Houses of Parliament by His Excellency's Command.



TASMANIAN COUNCIL OF EDUCATION.

DEGREE OF ASSOCIATE OF ARTS, DECEMBER, 1883.

IN conformity with the Rules and Regulations of the Tasmanian Council of Education, the Council has directed the publication of the names of the under-mentioned Candidates 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 :—

FIRST CLASS.

EDWIN ARTHUR LAMPRIILL, High School, Hobart.
WILLIAM LESLIE GIBLIN, Hutchins' School, Hobart.
HENRY FRANK MILES, High School, Hobart.
RUSSELL WELLS ROBERTS, Hutchins' School, Hobart.
GEORGE ERNEST CLEMONS, Church Grammar School, Launceston.
RICHARD FITZARTHUR WALLER, High School, Hobart.

SECOND CLASS.

REGINALD KERR MANNING, Church Grammar School, Launceston.
WILLIAM RING BENNETT, Church Grammar School, Launceston.
GEORGE PATTEN ADAMS, Church Grammar School, Launceston.

THIRD CLASS.

HENRY VERE POULETT-HARRIS, High School, Hobart.

Candidates over 19 Years of Age.

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

FIRST CLASS.

ROBERT LESLIE GATENBY, Horton College, Ross.

SECOND CLASS.

VIVIAN DE VAUX ELLISTON, Hutchins' School, Hobart.
AMY STEPHENSON, High School, Hobart.
AGNES CLARK MINNIS, High School, Hobart.

THIRD CLASS.

MARION ISABEL OLDHAM, Private Tuition.

By Order of the Council,

GEORGE RICHARDSON, *Secretary.*

Hobart, 12th December, 1883.

TASMANIAN COUNCIL OF EDUCATION.

EXAMINATION FOR THE DEGREE OF ASSOCIATE OF ARTS, 1883.

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 A.A. have now the honour to submit their Report.

The Examination began on Friday, the 30th November, and was continued for seven hours daily till Saturday, the 8th December.

Eighteen Candidates presented themselves, of whom four were females. Five of the Candidates were over 19, and therefore no account is taken of their work in the following reports and averages.

The Reports of the Examiners in the several subjects are as follows :—

I. ENGLISH, HISTORY AND GEOGRAPHY.—Thirteen Candidates. All passed ; three with credit. Full marks, 1100. Highest obtained, 864. Average obtained, 641.

In English none did brilliantly, all fairly, and Lamprill and Waller well. The play prescribed had been very thoroughly studied, with the exception of the derivations ; the Analysis, the Parsing, and the Grammar questions were done correctly as a rule, but not with sufficient fulness. Indeed this was the fault generally found in all the papers,—a tendency to hint at an answer, rather than take pains to make it full and precise.

History and Geography.—The questions in these subjects were answered on the whole satisfactorily ; and very well by Lamprill and Waller.

II. LATIN.—Twelve Candidates. Ten passed ; five with credit. Full marks, 800. Highest obtained, 591. Average obtained, 497.

It may be well to make a remark on the apportionment of marks in this subject. To Latin I., which contained only the prepared work, were allotted 450 out of the 800 marks ; and to Latin II., containing passages of Latin Prose and Verse for translation at sight, and passages of English for translation into Latin Prose and Verse, were assigned the remaining 350.

Paper I. was very well done, save by two Candidates, who ultimately failed to obtain the Degree. All the rest shewed thorough acquaintance with the books, and fair grammatical knowledge. As in English, the derivation of words was the weakest point. Paper II. showed that most of the Candidates had gained the power of construing Latin fairly at sight, and of doing a fair bit of Latin prose. It showed also that none had a notion of verse (the mechanism of which might easily be taught, if the poetry cannot), and that the greater part of them were too impatient to criticise and polish up their work as they might have done.

III. GREEK.—Eight Candidates. Six passed ; one with credit. Full marks, 800. Highest obtained, 533. Average, 468.

As there is no Greek Verse prescribed, the value of the unseen work was fixed in this subject at 300, and that of the prepared work at 500. As to the books studied, very much the same remarks apply as in Latin. In the unseen work, Miles, Roberts, and Lamprill did very well, the translation of Sophocles by the first, and that of Thucydides by the last-named, being particularly good. The Examiner would urge upon future Candidates the importance of the unprepared work. Another year it may very justly be appraised more highly. This year, moreover, the Examiner was very liberal in marking the translation from English into Greek, as he found that, though specified in the Council's Regulations, it had not been set in past years.

IV. FRENCH.—Thirteen Candidates. Eleven passed ; three with credit. Full marks, 550. Highest obtained, 411. Average, 330. In this subject no books are prescribed. The knowledge of French displayed by the Candidates was very satisfactory. Adams, Miles, and Lamprill did very good translations both from and into French. The grammar was generally fair, but the derivations poor. The changes which Latin words have undergone in passing into French are so systematic and so clearly marked, that Candidates should try and master the principles rather than, as they seem to do, endeavour to commit to memory the origin of individual words.

V. GERMAN.—One candidate, Lamprill, who gained credit with 419 marks out of a possible 550,—a very high per-centage. His papers were excellent throughout.

VI. ITALIAN.—Three Candidates. All passed; with credit none. The translations from English into Italian were generally indifferent, Roberts' being the best; those from Italian into English fair; Miles' the best. This boy would probably have gained credit had he not omitted to answer two grammatical questions.

VII. PURE MATHEMATICS.—Presented by 13. Failed, 4. Passed, 9; with credit, 5. Full marks, 1000. Highest obtained, 762. Average, 508. This average is very high, one reason being that the four who failed would, if they had succeeded, have dragged down the average; nevertheless the exercises were intrinsically good. The only candidate deserving special mention is Reginald Manning.

VIII. NATURAL PHILOSOPHY.—Presented by 7. Failed, 5. Passed, 2; with credit, none. Full marks, 250. Highest obtained, 115. Average, 100. No great ability shown by the candidates in dealing with this subject.

IX. CHEMISTRY.—Presented by 6. Failed, none. Passed, 6; with credit, 4. Full marks, 250. Highest obtained, 207. Average, 138. The work done in this subject reflects very great credit upon the candidates. R. F. Waller stands forward the most conspicuously; but the whole average is remarkably high. R. L. Gatenby, although over the prescribed age, and therefore not taken into account, obtained marks only second to R. F. Waller.

X. GEOLOGY.—Presented by 4. Failed, none. Passed, 4; with credit, 2. Full marks, 250. Highest obtained, 163. Average, 130. All the candidates answered the questions satisfactorily. R. F. Waller succeeded best both in answering the questions, and in identifying minerals and fossils. R. L. Gatenby, a candidate over age, is again deserving of mention as having obtained marks over the credit standard.

XI. DRAWING.—Three Candidates. One, Waller, passed with credit. He was particularly good in the perspective problems, and throughout his work showed great boldness and freedom.

XII. MUSIC.—Two Candidates. Both passed; one with credit. The Examiner has to report that the work of this Candidate, Poulett-Harris, was very good throughout.

On adding together the number of marks obtained by the Candidates in the several subjects presented by them, it appeared that the following, 10 out of 13, had passed:—

FIRST CLASS. —Lamprill, E. A.		3217
Giblin, W. L.		3082
Miles, H. F.		3057
Roberts, R. W.		2823
Clemons, G. E.		2543
Waller, R. F.		2502
SECOND CLASS. —Manning, R. K.		2248
Bennett, W. R.		2140
Adams, G. P.		2115
THIRD CLASS. —Poulett-Harris, H. V.		1569

The following Table shows how this Examination bears comparison with former years:—

	No. of Candidates.	Rejected at Preliminary.	Admitted to A.A. Examination.	Passed.	First Classes.	Second Classes.	Third Classes.	Highest Marks obtained.	Average of all who passed.	Highest Marks yet gained.	Highest Average yet reached.
1860-1871	114	13	91	84	40	19	25	2637*	2095	4069 in 1880.	2565 in 1875.
1872	11	0	11	9	3	1	5	2821	2075		
1873	14	2	12	10	4	1	5	3295	2228		
1874	17	1	16	13	5	7	1	3082	2357		
1875	12	0	12	9	4	5	0	3442	2565		
1876	18	0	18	14	8	3	3	3308	2511		
1877	18	2	16	15	10	5	0	3631	2532		
1878	18	0	18	16	8	7	1	3611	2495		
1879	25	0	25	22	14	2	6	3573	2532		
1880	21	1	20	18	10	5	3	4069	2536		
1881	17	1	16	15	9	4	2	3384	2475		
1882	24	—	—	13	7	2	4	3221	2288		
1883	13	—	—	10	6	3	1	3217	2530		

* Average, 1860-1871.

On the whole, therefore, the Examination just closed compares very fairly with former years in all respects save the number of candidates; but it may be remarked that no fewer than six others who had entered withdrew.

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

The Council's Gold Medal.....	E. A. Lamprill.
First Prize for English.....	E. A. Lamprill.
First Prize for Latin.....	H. F. Miles.
First Prize for Greek.....	H. F. Miles.
First Prize for German.....	E. A. Lamprill.

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

Second Prize for English.....	R. F. Waller.
Second Prize for Latin.....	G. P. Adams.
Prize for French.....	G. P. Adams.
Second Prize for French.....	G. E. Clemons.
Prize for Mathematics.....	R. K. Manning.
Second Prize for Mathematics.....	W. R. Bennett.
Prize for Chemistry.....	R. F. Waller.
Prize for Geology.....	R. F. Waller.
Prize for Drawing.....	R. F. Waller.
Prize for Music.....	H. V. Poulett-Harris.

Five Candidates over the age of 19 years presented themselves for examination, and all passed. Three who failed to obtain the Degree last year were successful on this occasion.

Those who succeeded are—

FIRST CLASS.—Gatenby, R. L.	2430
SECOND CLASS.—Elliston, V. D.....	2236
Stephenson, Amy.....	2233
Minnis, Agnes C.....	2036
THIRD CLASS.—Oldham, Marion I.....	1836

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

For the Examiners,

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

Hobart, 10th December, 1883.

EXAMINATION FOR THE DEGREE OF ASSOCIATE OF ARTS, 1883.

GENERAL CLASS LIST.

FIRST CLASS.

No.	NAME.	AGE. 1 Sept. 1883	MARKS.	AWARDS.
		<i>yrs. mths.</i>		
1	Lamprill, E. A.	17 10	3217	{ Council's Gold Medal. First Prize for English. First Prize for German.
2	Giblin, W. L.	16 6	3082	
3	Miles, H. F.	17 1	3057	{ First Prize for Latin. First Prize for Greek.
4	Roberts, R. W.	17 4	2823	
5	Clemons, G. E.	17 5	2543	Second Prize for French.
6	Waller, R. F.	16 5	2502	{ Second Prize for English. Prize for Chemistry. Prize for Geology. Prize for Drawing.

SECOND CLASS.

7	Manning, R. K.	17 1	2248	Prize for Mathematics.
8	Bennett, W. R.	16 10	2140	Second Prize for Mathematics.
9	Adams, G. P.	17 1	2115	{ Second Prize for Latin. Prize for French.

THIRD CLASS.

10	Harris, H. V. Poulett,.....	18 4	1569	Prize for Music.
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M. H. IRVING, M.A., *Chairman.**Hobart, 10th December, 1883.*

SPECIAL CLASS LIST.

<i>English.</i>	<i>Latin.</i>	<i>Greek.</i>	<i>French.</i>	<i>German.</i>	<i>Italian.</i>	<i>Mathematics.</i>	<i>Natural Philosophy.</i>	<i>Chemistry.</i>	<i>Geology.</i>	<i>Drawing.</i>	<i>Music.</i>
FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.	FIRST CLASS.
Lamprill Waller Giblin	Miles Adams Lamprill Clemons Roberts	Miles	Adams Clemons Giblin	Lamprill	None	Manning Bennett Giblin Lamprill Miles	None	Waller Clemons Manning Miles	Waller	Waller	Harris
SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.
Adams Roberts Clemons Miles Bennett Harris Manning	Giblin Manning Bennett Waller Harris	Lamprill Giblin Roberts Clemons Harris	Miles Roberts Lamprill Bennett Waller Manning	None	Roberts Miles Giblin	Roberts Adams Clemons Waller	Bennett Giblin	None	Bennett Manning	None	None

Hobart, 10th December, 1883.

M. H. IRVING, M.A., Chairman.

TASMANIAN COUNCIL OF EDUCATION.

EXAMINATION for the Degree of ASSOCIATE OF ARTS, December, 1883.

TABLE OF MARKS.

No.	NAME.	DATE OF BIRTH.	SCHOOL.	TEACHER.	English.	Latin.	Greek.	French.	German.	Italian.	Mathematics.	Natural Philosophy.	Chemistry.	Geology.	Drawing.	Music.	TOTAL.	CLASS.
					[Maximum No. of Marks.. 1100]	800	800	550	550	550	1000	250	250	250	250	400		
1	Lamprill, Edwin Arthur	27 Oct. 1865	High School	Rev. R. D. Poulett-Harris, M.A.	864 c	553 c	512	340	419 c	—	529 c	n.p.	—	—	—	—	3217	First.
2	Giblin, William Leslie	28 Feb. 1867	Hutchins' School	Rev. J. V. Buckland, B.A.	766 c	515	508	375 c	—	283	550 c	85	—	—	—	—	3082	First.
3	Miles, Henry Frank	9 July, 1866	High School	Rev. R. D. Poulett-Harris, M.A.	619	591 c	533 c	371	—	285	518 c	n.p.	140 c	—	—	—	3057	First.
4	Roberts, Russell Wells	16 Apr. 1866	Hutchins' School	Rev. J. V. Buckland, B.A.	656	534 c	471	346	—	322	494	n.p.	—	—	—	—	2823	First.
5	Clemons, George Ernest	20 Mar. 1866	Church Grammar School, Launceston	Rev. W. H. Savigny, M.A.	632	550 c	459	385 c	—	—	364	n.p.	153 c	—	—	—	2543	First.
6	Waller, Richard Fitzarthur	19 Mar. 1867	High School	Rev. R. D. Poulett-Harris, M.A.	846 c	416	n.p.	307	—	—	363	—	207 c	163 c	200 c	—	2502	First.
7	Manning, Reginald Kerr	1 Aug. 1866	Church Grammar School, Launceston	Rev. W. H. Savigny, M.A.	513	460	—	273	—	—	762 c	—	144 c	96	—	—	2248	Second.
8	Bennett, William Ring	21 Oct. 1866	Ditto	Rev. W. H. Savigny, M.A.	610	434	—	308	—	—	557 c	115	—	116	—	—	2140	Second.
9	Adams, George Patten	20 July, 1866	Ditto	Rev. W. H. Savigny, M.A.	713	559 c	—	411 c	—	—	432	—	—	—	—	—	2115	Second.
10	Poulett-Harris, Henry Vere	22 Apr. 1865	High School	Rev. R. D. Poulett-Harris, M.A.	535	361	328	n.p.	—	—	n.p.	—	—	—	—	345 c	1569	Third.
Candidates over 19 Years of Age.																		
1	Gatenby, Robert Leslie	—	Horton College	W. W. Fox, Esq., B.A.	806	478	n.p.	342	—	—	491	n.p.	177 c	136 c	—	—	2430	First.
2	Elliston, Vivian De Vaux	—	Hutchins' School	Rev. J. V. Buckland, B.A.	644	508	462	313	—	—	309	—	—	—	—	—	2236	Second.
3	Stephenson, Amy	—	High School	Rev. R. D. Poulett-Harris, M.A.	744 c	422	—	366	291	—	245	—	—	—	165 c	—	2233	Second.
4	Minnis, Agnes Clark	—	High School	Rev. R. D. Poulett-Harris, M.A.	648	363	—	375 c	—	325	n.p.	—	—	—	—	325 c	2036	Second.
5	Oldham, Marion Isabel	—	Private	Miss Oldham	754 c	—	—	390 c	—	288	214	—	—	—	190 c	—	1836	Third.

Hobart, 10th December, 1883.

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

M. H. IRVING, M.A., Chairman.

EXAMINATION PAPERS.

English.

Four hours.

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

The English Language. SHAKESPERE—King John.

1. What is the general rule for forming the plural in English. Name and explain fully any exceptions.
2. Give a full account of the formation of derivative nouns in English, both by English and by Latin or French affixes.
3. From what causes and at what times were Latin words brought into English. Give instances of each class. Hence explain such double forms as poison, potion; due, debt; sure, secure.
4. Correct the grammar of the following, explaining clearly the fault in each:—
 - (1) Shakespere, who we count the greatest of any dramatist of every land.
 - (2) France and Austria shoot in one another's mouths.
 - (3) This day shall not up as soon as me.
 - (4) None are so poor as do thee reverence.
 - (5) This once again, but that your highness pleased, was once superfluous.
 - (6) He talks to me that never had a son.
5. Parse every word in—
 - (a) His spirit is come in
That so stood out against the Holy Church.
 - (b) I did not think to be so sad to-night
As this hath made me.
6. Discuss any peculiarities in the following:—
 - (1) Our strong possession and our right for us!
 - (2) Come the four quarters of the world in arms.
 - (3) To make a mere requital to your love.
 - (4) Pay the duty that you truly owe
To him that owes it.
 - (5) Left to be finished by such a she.
 - (6) What since thou sworest is sworn against thyself.
 - (7) O fair affliction, peace!
 - (8) There end thy brave.
 - (9) Lead me to the revolts of England.
 - (10) From whose obedience I forbid my soul.
7. Analyse as directed below:—
 - (a) Peace, peace, my Lords, and give experience tongue;
They do abuse the King, that flatter him;
For flattery is the bellows blows up sin,
The thing the which is flattered, but a spark,
To which that breath gives heat and stronger glowing.
 - (b) Is not the Lady Constance in this troop?
I know she is not! for this match made up
Her presence would have interrupted much:
Where is she, and her son? Tell me, who knows.

Analyse as follows:—Mark off six columns; in the first insert in order all the constituent sentences of the passages, distinguishing them by letters; in the second, state what kind of sentence each is; in the third, place the subject of the sentence with its attributes; in the fourth, the predicate; in the fifth, the object with its attributes, specifying whether it is direct or indirect; in the sixth, any adverbial extension, distinguishing time, place, manner. If any subject, object, or adverbial extension be a sentence, represent it in its proper column by the letter that denotes it. Supply all ellipses in brackets.

8. Give some account of the English Drama, before Shakspeare. What play, and by whom written, was there before Shakspeare's on the subject of King John?
9. "Therefore to be possessed with double pomp;
"To guard a title that was rich before,
* * *
"Is wasteful and ridiculous excess.

Insert what you can of the five lines omitted. Who says this, when, and why?

10. "Drawn in the flattering table of her eye,
 "Hanged in the frowning wrinkle of her brow,
 "And quartered in her heart."

Is this Metaphor, Simile, or Paronomasia (play upon words)? Explain and justify your answer. Who said this, and how was it suggested?

11. Paraphrase, so as to bring out the meaning of each, and refer to context :—

- (a) Coops from other lands her islanders.
- (b) To cull the plots of best advantages.
- (c) Whose equality by our best eyes
 Cannot be censured.
- (d) If not complete of, say he is not she.
- (e) That smooth-faced gentleman, tickling commodity.
- (f) Imprisoned angels set thou at liberty.
- (g) The beadle to her sin.
- (h) It ill beseems this presence to cry aim.
- (i) Your winking gates.
- (j) Here's a stay.
- (k) England is left to tug and scramble, and to part by the teeth
 The unowed interest of proud swelling state.

12. Derive *fully*—Atè, bedlam, canker, cousin, embassy, embrace, fulsome, impeach, indenture, liege, parle, sexton, stain, zounds.

13. What is the ordinary metre of Shakspeare's verse? Divide the following lines into their component feet, and name them :—

- (a) By the compulsion of their ordnance.
- (b) The flinty ribs of this contemptuous city.
- (c) Even till unfenced desolation.

14. Early English writers often add *that* after *if* and *when*. Account for this. What is the word *that* originally? Trace and explain its various uses in English.

15. In the following passages certain corrections have been proposed. Name and discuss them :—

- (a) The devil tempts thee here
 In likeness of a new untrimmed bride.
- (b) A cased lion by the mortal paw
 Thou mayest safer hold.
- (c) Comfort your city's eyes.
- (d) Now happy he whose cloak and centre can
 Hold out this tempest.

- 16.—(a) An account of the action of Hubert in this play, and a sketch of his character as drawn by Shakspeare; or,

- (b) An essay on Moderation—

"Ne quid nimis." (Old adage.)
 "When workmen strive to do better than well
 "They do confound their skill in covetousness."

SHAKSPERE.

History and Geography.

Four hours.

DR. BROMBY, *Examiner*.

1. Why is the Ecliptic so named? Explain the origin of the terms—Meridian, Latitude, Longitude, Tropic, Zone, Arctic, and Antarctic. Mention the number of degrees in each of the zones measured along the meridian. Convert them into English miles.
2. How many degrees of longitude correspond to an hour of time? The longitude of Melbourne being 145° , and of Hobart $147^{\circ} 20'$, what is the time at Hobart when it is noon at Melbourne?
3. What and where are the following?—Quebec, Luzon, Nova Scotia, Chimborazzo, Niger, Nova Zembla, Palermo, Malabar, Berne, Brazil, Leipzig, Beyrout, Hofwyl, Moluccas, Guiana, Tivoli, Vosges, Texel, Gracios a Dios, Blackwater.
4. What are the chief products or exports from the following places?—Holland, Sheffield, Sweden, Odessa, Bordeaux, Corfu, Zante, Cashmere, Belfast, the Arctic Ocean, Leeds, Aberdeen.
5. Describe the present Government of Germany.

6. Draw a map of Tasmania : divide it into its counties, and mark down the principal capes, bays, and rivers.

7. Give dates of accession and duration of the reigns of Alfred the Great, Stephen, the three Richards, the first three Henrys, and the first two Georges.
8. Adduce some characteristic event which occurred in each of the above reigns.
9. State what you know of the Bayeux tapestry.
10. Discuss the claims of Henry IV. and Henry VII. to the Crown.
11. Mention a fact or two whereby to identify the following :—Alcuin, Lord Bacon, Elizabeth Barton, Cranmer, Laud, Margaret of Anjou, Prince Rupert, Warren Hastings, Robert Bruce, Tyrconnel, Catherine Parr, Sir Philip Sidney, Sir Thomas More, Lords Stafford and Strafford.
12. In what reigns did the following events take place? Give a short account of each :—The Test Act passed, and repealed; Fire of London; The Duke of Somerset; and Sir Walter Raleigh, executed; The Treaty of Utrecht; Possession secured of the Rosetta stone; Battles of Blenheim, Lewes, Aboukir, and The Standard.

French.

Four hours.

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

1. Translate—

Il faut que je vous conte une petite historiette, qui est très-vraie, et qui vous divertira. Le Roi se mêle depuis peu de faire des vers : MM. de Saint-Aignan et Dangeau lui apprennent comment il faut s'y prendre. Il fit l'autre jour un petit madrigal; que lui-même ne trouva pas trop joli. Un matin il dit au Maréchal de Grammont, "M. le Maréchal, je vous prie, lisez ce petit madrigal, et voyez si vous en avez vu un si impertinent. Parce-qu'on sait que depuis peu j'aime les vers, on m'en apporte de toutes les façons." Le maréchal après avoir lu, dit au Roi, "Sire, Votre Majesté juge divinement bien de toutes choses, il est vrai que voilà le plus sot et le plus ridicule madrigal que j'ai jamais lu." Le roi se mit à rire, et lui dit, "N'est pas vrai que celui qui l'a fait est bien fat."—"Sire, il n'y a pas moyen de lui donner un autre nom."—"Oh bien!" dit le Roi, je suis ravi que vous m'en ayez parlé si bonnement : c'est moi qui l'ai fait."—"Ah! Sire, quel trahison! que Votre Majesté me le rende; je l'ai lu brusquement."—"Non, M. le Maréchal; les premiers sentiments sont toujours les plus naturels." Le Roi a fort ri de cette folie, et tout le monde trouve que voilà la plus cruelle petite chose que l'on puisse faire à un vieux courtisan. Pour moi, qui aime toujours à faire des réflexions, je voudrais que le Roi en fit là-dessus, et qu'il jugeât par là combien il est loin de connaître jamais la vérité."

MADAME DE SEVIGNE.

2. Translate—

J'éveillerai pour toi la pitié, la justice
De l'incorruptible avenir :
Eux mêmes épureront, par leur long artifice,
Ton honneur qu'ils pensent ternir.
Soyez béni, mon Dieu, vous qui daignez me rendre
L'innocence et son noble orgueil ;
Vous, qui pour protéger le repos de ma cendre,
Veillerez près de mon cercueil.
Au banquet de la vie, infortuné convive,
J'apparus un jour, et je meurs ;
Je meurs, et sur ma tombe, où lentement j'arrive,
Nul ne viendra verser des pleurs.
Salut, champs que j'aimais, et vous, douce verdure,
Et vous, riant exil des bois !
Ciel, pavillon de l'homme, admirable nature,
Salut pour la dernière fois.
Ah puissent voir longtemps votre beauté sacrée
Tant d'amis sourds à mes adieux !
Qu'il meurent pleins de jours ! que leur mort soit pleurée !
Qu'un ami leur ferme les yeux.

GILBERT.

3. Parse fully in (1) *divertira*, *apprennent*, *lisez*, *mit*, *ri*, *puisse*, *fût*, *connaître*; and in (2) *béni*, *apparus*, *meurs*, *ferme*. (Give tense, mood, voice, infinitive, participles, and 1st sing. pres. and preterite definite indicative active.)

4. Translate into French—

Raoul forced himself to keep up the courage of his beautiful mistress, and handed to the footman a letter carefully sealed, bidding him put it at once into M. de Montaubert's hands. The few minutes which separated the request from the answer seemed as many centuries to the two poor lovers. Motionless and dumb, absorbed by the same thoughts, one would have said nevertheless that they were strangers to each other. Only, at intervals they pressed each other's hand with effusion, and long sighs escaped simultaneously from their breast.

But their trouble, violent as it was, nearly doubled in intensity when they learnt that M. de Montaubert awaited them in the drawing-room. To get there, Jeanne had to lean on Raoul's arm, who ceased not to witness to his friend the most touching solicitude. On their entry the Count rose, without saying anything bowed, and sat down again in the seat he occupied before.

5. Put into French the following:—

- (a) Stand up, my boy, and open your book at page ninety-one.
- (b) Get up, you've only a quarter of an hour to dress in.
- (c) What do you want? I want to see Doctor Nélaton at once.
- (d) Whence do you come? I've just arrived from Launceston by rail.
- (e) How long have you been here? About two months and a half.
- (f) If you wish to succeed, you really must trust me, my friend.
- (g) Behave yourself in such a way that every one may be pleased with you.
- (h) Are you afraid of their coming soon? Not I.
- (i) Put out the candle, and go to bed immediately.
- (j) Whether you like it or not, you'll have to go home.

6. When may the present participle be inflected? When may the past participle? Make sentences to illustrate your rules.

7. Give the English of the following:—*Pommier*, *lavage*, *ferraille*, *livret*, *pauvreté*, *flâneur*. State from what word each is derived, and by what suffix. Explain the origin and the meaning of each suffix.

8. (a) What are the irregularities found in the first conjugation, other than in *aller* and *envoyer*?
(b) Give the meanings and the principal tenses (as in Question 3) of *s'en aller*, *acquérir*, *vouloir*, *croire*, *cueillir*, *déchoir*, *peindre*, *vaincre*, *resoudre*, *bouillir*.

9. Write down Fut. Ind. *envoyer*; Pres. Ind. *faillir*; Pres. Subj. *fuir*; Pres. Ind. *vêtir*; Fut. Ind. *échoir*; Imp. Subj. *savoir*; Pres. Subj. *boire*; Fut. Ind. *valoir*; Pret. Def. *coudre*; Pres. Subj. *moudre*; with the English of each verb.

10. Give the English and the plural of these words—*Contrevent*, *chou-fleur*, *casse-noisette*, *garde-chasse*, *tête-à-tête*, *passe-partout*, *coffre-fort*, *arc-en-ciel*.

11. Name with their meanings, and an example for each—

- (a) Six adjectives that require *de*.
- (b) Six adjectives that require *à*.
- (c) Six verbs that require *de*.
- (d) Six verbs that require *à*.

12. Give the meaning, and trace the etymology of *aussi*, *auparavant*, *parmi*, *aucun*, *mais*, *eux*, *dont*, *on*, *rien*; and of these nouns—*cheval*, *âne*, *couteau*, *état*, *père*, *lait*, *roi*. Each of the latter group exemplifies some regular letter-change from Latin to French. State it, and give another example of it.

Italian.

Four hours.

Rev. T. KELSH, Examiner.

1. Translate—

Certo, una tale *dittatura* era uno strano ripiego; strano come la calamità, come i tempi; e quando non *ne sapessimo* altro, *basterebbe* per argomento, anzi per saggio d'una società molto rozza e mal regolata, il veder che quelli a cui toccava un così importante governo, non *sapesse* più *farne* altro che cederlo, nè trovassero a chi *cederlo*, che *uomini* per istituto, il più alieni da ciò. Ma è insieme un saggio non ignobile della forza e dell'abilità che la carità

può dare in ogni tempo, e in qualunque ordin di cose, il vedere quest' uomini sostenere un tai carico così bravamente. E fu bello lo stesso averlo accettato, senz' altra ragione che il non esserci chi lo *volesse*, senz' altro fine che di servire, senz' altra speranza in questo mondo, che d'una morte molto più invidiabile che invidiata; fu bello lo stesso esser loro *offerto*, solo perchè era difficile e pericoloso, e si supponeva che il vigore e il sangue *fredão*, così necessario e raro in que' momenti, essi lo dovevano avere. E perciò l'opera e il cuore di que' frati meritano che *se ne faccia* memoria, con ammirazione, con tenerezza, con quella specie di gratitudine che è *dovuta*, come in solido, per i gran servizi *resi* da uomini, e più dovuta a quelli che non *se la propongono* per ricompensa.

2. Parse the words in italics.
3. Give some account of the particle *ne*, explaining its etymology; and also its use by some ancient writers, with words accented on the last syllable.
4. Which are the leading exceptions to the general rule for forming the plural of nouns?
5. State the rules for forming the Superlative Absolute of adjectives and adverbs, and give examples of each.
6. Give the Preterite Indicative of *espellere* — *assobere* — *fendere* — *mergere* — *porre* — *accendere* — *dolere* — *munger* — *ardere* — *addurre* — *seguire* — *accorgersi*.
7. What are the rules for the agreement of the past participle, and illustrate by examples?
8. Translate—

Superbi colli, e voi, sacre ruine
 Che il nome sol di Roma ancor tenete,
 Ahi che reliquie miserande avete
 Di tant' anime eccelse e pelligrine!
 Colossi, archi, teatri, opre divine,
 Trionfal pompe gloriose e liete,
 In poco cener pur converse siete
 E fatte al volgo vil favola alfine.
 Così se ben un tempo al tempo guerra
 Fanno l'opre famose, a passo lento
 E l'opre e i nomi il tempo invido atterra.
 Vivrò dunque fra i miei martir contento;
 Chè se il tempo dà fine a ciò ch'è in terra,
 Darà forse ancor fine al mio tormento.

9. Translate into Italian—

On the 29th of July, one thousand eight hundred and eighty-three, upon the high summit of Vesuvius, was seen a dense column of smoke, increasing rapidly and extending into the clouds. The profound caverns of the mountain began to send forth groans resembling the rumbling of distant thunder, the heavens were darkened, the sun grew dim, and the sea raged with the violence of the wind. The horses, with waving manes and ears erect, neighed, and pawed the ground; the dogs ran howling with terror through the streets; the birds with doubtful flight escaped to the mountain of Amalfi, and the doves regained their retreats in silence and sadness.

Do not trust him until you have surer proofs of his capacity.

Go there, as here there is no room. Will you have me go alone? I will call for you about daybreak.

You could never guess who has been elected. I wish you to give it me. Do not thou trouble me, hast thou nothing else to tell me.

All four are called the Evangelists.

However advantageous your proposals may be, I cannot accept them.

She has taken a fancy to go to the country. He pretends to be learned.

You were promised something grand. I know nothing about it. Nothing venture, nothing have.

German.

Four hours.

Professor IRVING, Examiner.

1. Decline—*der Vater, der Herr, die Haut, das Buch, frisches Wasser, der Reisende, dieser Mann, unsere gute Nachbarin*.
2.
 - (a) Name four nouns that have two plurals, and give the meanings of the two forms.
 - (b) Give the meaning and the plural of *die Bahn, das Bett, der Pantoffel, der See*.
 - (c) Write down, with their meanings, 6 words that have no plural, and 4 that take a new plural.
 - (d) Also four nouns whose gender varies with their meaning.

3. What classes of nouns do you know to be Feminine? and what Neuter?
4. Distinguish regular from irregular verbs—
- State how all the tenses of a regular verb are formed in the active, and illustrate by *reden*.
 - Give the meaning of the 1st S. Past Ind. and Perf. Part. of *besitzen*, *empfehlen*, *essen*, *genesen*, *nennen*, *schiessen*, *stossen*, *treffen*, *verbergen*, *waschen*, *werben*, *zwingen*.
5. What do you mean by separable and inseparable prefixes? Name with meanings and a verb compounded with each,—
- Four simple and four compound separable.
 - Four simple and four compound inseparable.
 - Four sometimes separable, sometimes inseparable.
- 6.
- Name three conjunctions and three verbs that require the subjunctive after them. Construct a sentence to exemplify each.
 - Name four prepositions that take dative or accusative. Construct a phrase for each.
 - Name three verbs followed by *an*, three by *auf*, three by *mit*, three by *über*, and construct phrases. For each sentence or phrase give both German and English.
7. Give the German equivalents for—(1) Five feet long. (2) Nine bits of cloth. (3) Mary's brother. (4) Poor Fritz's book. (5) After Charlemagne's death. (6) What town is this? (7) The first day of the month. (8) A year and a half. (9) Three eighths. (10) Tenthly. (11) What o'clock is it? A quarter past five. (12) At the beginning. (13) What's to be done? (14) Your money that I have found. (15) Give it to him you like best. (16) This is my daughter. (17) There is no man but has his faults. (18) Nobody's coming. (19) On foot. (20) Something good. (21) The boy, whose father is ill. (22) I who know him well. (23) A horse of mine. (24) Do as you please. (25) Will you be so good as to wait five minutes, Sir? (26) I am much better this summer than I was last winter. (27) If you please, show me how to do that. (28) I wish you to go home.
8. Re-translate into German—
- Once the fox went up and down on the river's bank, and saw the fishes thronging together, now here, now there. "Why are you swimming round there so anxiously?" asked he. "Men are throwing out their nets there," answered the fish, "and we are seeking to save ourselves." "Do you know what?" replied the fox, "come to me on to the dry land. We'll go a safe place where no fisherman will find you." "Are you the fox," cried the fish, "whom men count wisest among beasts? Then you must indeed be also the stupidest if you are giving us your advice seriously. Here we live unsecurely, but on land our death would be certain."
 - The German travellers saw one day at the time of the inundation on the Amazon, a multitude of large tree-trunks floating, which were coming towards them with the full force of the stream. On some of these beasts of all kinds had settled, and were making the uncertain journey with great quiet and peacefulness towards one another. Upon a cedar stem was a horrible crocodile, to whom chance had give a tiger as companion-of-the-journey. The two brutes seemed to observe each other with hostile mistrust.
9. Translate—
- Aber sie sagte darauf; O lass mich dieser Erinnerung
Einen Augenblick weihen! Denn wohl verdient sie der Gute,
Der ihn mir scheidend gab, und nicht zur Heimath zurückkam
Alles sah er voraus, als rasch die Liebe der Freiheit,
Als ihn die Lust im neuen veränderten Wesen zu wirken
Trieb nach Paris zu gehn, dahin, wo er Kerker und Tod fand.
Lebe glücklich sagt er. Ich gehe, denn alles bewegt sich
Jetzt auf Erden einmal, es scheint sich alles zu trennen.
Grundgesetze lösen sich auf der festesten Staaten,
Und es lös't der Besitz sich los vom alten Besitzer,
Freund sich los von Freund; so lös't sich Liebe von Liebe.
Ich verlasse dich hier: und, wo ich jemals dich wieder
Finde—wer weiss es? Vielleicht sind diese Gespräche die letzten.
Nur ein Fremdling, sagt man mit Recht, ist der Mensch hier auf Erden,
Mehr ein Fremdling als jemals ist nun ein jeder geworden.
10. Translate—
- Der Fremde fuhr mit der gebräunten Hand über die Stirn und rief "Ja so, ich habe vergessen, dass auch ich gegen vierzig Jahr abwesend war. Die Zeit verändert viel: mancher meiner frühern Schul- und Spielgenossen ist wohl schlafen gegangen, und die da noch leben

werden den armen Matrosen nicht wieder erkennen, viele werden's auch nicht wollen. Der Peter Braun, welcher früher in der Langgasse wohnte, ist nun auch wohl schon lange todt?"

"Selbst gekannt hab'ich ihn nicht, aber ich habe viel von ihm erzählen hören. Er starb im Spittel!"

"Im Spittel?" wiederholte der Unbekannte erschüttert.

"Der Mann hat ein hartes Schicksal gehabt" fuhr die Alte fort, "ihm war es auch nicht an die Wiege gesungen, dasz er so sterben sollte. Er war der Sohn von dem Bernhard Braun der allgemein für einen sehr reichen Mann galt. Als er aber plötzlich starb, fand man weder Geld noch Geldeswerth in seinem Nachlasse, wohl aber meldeten sich Gläubiger mit bedeutenden Forderungen. Peter, um des Vater's ehrlichen Namen zu retten, bezahlte alle Schulden. Aber durch dieses Opfer verarmte er selbst so sehr, dasz er es geschehen lassen musste, das sein noch ungewachsener Sohn als Schiffsjunge in die Fremde ging. Nun war der Alte ganz allein. Er begann noch manches; aber nichts glückte ihm, und seine ehemaligen Freunde hatten sich von ihm abgewandt: die armen konnten ihm nicht helfen, die reichen wollten nicht. So geschah es denn, dass er krank und lebensmüde ins Spital gehn musste."

11. Write carefully in German characters the first eight lines of the extract in Question 9.

12. (a) Quote any German idioms you remember which do not occur in this paper.
(b) How are diminutives formed in German? Give examples.

Latin.—I.

Four hours.

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

I. Translate—

(A) Quibus rebus permota civitas atque immutata urbis facies erat; ex summa lætitia atque lascivia, quæ diuturna quies pepererat, repente omnis tristitia invasit; festinare, trepidare, neque loco neque homini cuiquam satis credere, neque bellum gerere, neque pacem habere, suo quisque metu pericula metiri. Ad hoc mulieres, quibus, reipublicæ magnitudine, belli timor insolitus incesserat, afflictare sese, manus supplices ad cælum tendere, miserari parvos liberos, rogitare, omnia pavere, superbia atque deliciis omissis sibi patriæque diffidere. At Catilinæ crudelis animus eadem illa movebat, tametsi præsidia parabantur et ipse lege Plautia interrogatus erat ab L. Paullo. Postremo dissimulandi causa aut sui expurgandi, sicuti jurgio lacessitus foret, in senatum venit. Tum M. Tullius consul, sive præsentiam ejus timens sive ira commotus, orationem habuit luculentam atque utilem reipublicæ, quam postea scriptam edidit. Sed ubi ille assedit, Catilina, ut erat paratus ad dissimulanda omnia, demisso vultu, voce supplicis postulare, "Patres conscripti ne quid de se temere crederent; ea familia ortum, ita se ab adolescentia vitam instituisse, ut omnia bona in spe haberet; ne existumarent, sibi, patricio homini, cujus ipsius atque majorum plurima beneficia in plebem Romanam essent, perdita republica opus esse, quum eam servaret M. Tullius, inquilinus civis urbis Romæ."

(B) Ira furor brevis est: animum rege, qui nisi paret, Imperat; hunc frenis, hunc tu compesce catena. Fingit equum tenera docilem cervice magister Ire viam, qua monstret eques; venaticus ex quo Tempore cervinam pellem latravit in aula, Militat in silvis catulus. Nunc adhibe puro Pectore verba, puer, nunc te melioribus offer. Quo semel est inbuta recens servabit odorem Testa diu. Quod si cessas aut strenuus anteis, Nec tardum opperior nec præcedentibus insto.

(C) Septimius, Claudius, nimirum intelligit unus, Quanti me facias; nam quum rogat et prece cogit, Scilicet ut tibi se laudare et tradere coner, Dignum mente domoque legentis honesta Neronis, Munere quum fungi propioris censet amici, Quid possim videt ac novit me valdius ipso. Multa quidem dixi, cur excusatus abirem; Sed timui, mea ne finxisse minora putarer, Dissimulator opis propriæ, mihi commodus uni. Sic ego majoris fugiens opprobria culpæ Frontis ad urbanæ descendi præmia. Quod si Depositum laudas ob amici jussa pudorem, Scribe tui gregis hunc et fortem crede bonumque.

- (D) Quis vetat et stellas, ut quaeque oriturque caditque,
 Dicere? promissi pars fuit ista mei.
 Felices animae, quibus haec cognoscere primis
 Inque domos superas scandere cura fuit.
 Credibile est illos pariter vitiisque locisque
 Altius humanis exseruisse caput.
 Non Venus et vinum sublimia pectora fregit,
 Officiumve fori, militiaeve labor.
 Nec levis ambitio, perfusaque gloria fuco,
 Magnarumve fames sollicitavit opum.
 Admovere oculis distantia sidera nostris,
 Aetheraque ingenio supposuere suo.
 Sic petitur caelum, non ut ferat Ossan Olympus,
 Summaque Peliacus sidera tangat apex.
 Nos quoque sub ducibus caelum metabimur illis,
 Ponemusque suos ad vaga signa dies.

2. Translate, explain, and refer to the context—

- (a) Sed juventutem, quam ut supra diximus illexerat, multis modis mala facinora edocebat.
 Ex illis testes signatoresque falsos commodare.
- (b) Sed confecto proelio, tum vero cerneret, quanta audacia, quantaque vis animi fuisset.
 Nam fere, quem quisque vivus pugnando locum ceperat, eum, amissa anima, corpore tegebat.
- (c) Ille Nefastus erit per quem tria verba silentur,
 Fastus erit, per quem lege licebit agi.
 Neu toto perstare die sua jura putaris,
 Qui jam Fastus erit, mane Nefastus erat.
- (d) Ille aditum fracti praestruxerat objice montis,
 Vix juga movissent quinque bis illud opus.
 Nititur hic humeris, caelum quoque sederat illis,
 Et vastum motu collabefactat opus.
- (e) Ne fueris hic tu. Chlamydes Lucullus, ut aiunt,
 Si posset centum scenae praebere rogatus,
 "Qui possum tot?" ait "tamen et quaeram et quot habeo
 "Mittam" post paulo scribit sibi millia quinque
 Esse domi chlamydem: partem vel tolleret omnes.
- (f) Scurror ego ipse mihi; populo tu, rectius hoc et
 Splendidus multo est. Equus ut me portet, alat rex,
 Officium facio, tu poscis vilia rerum,
 Dante minor, quamvis fers te nullius egentem.

3. Parse these words—Arcesse, attriverat, circumlita, coaluerint, crevisset, desierat, diluxisse, ejaculatus, fluitem, panges, referret, velis.
4. Derive fully—Absurdus, auspiciū, desidia, exilis, facundia, ferax, hospes, jurgium, libellus, mansuetudo, officiosus, periculum, periscelis, retrorsum, sedulitas, sodes. Give the meaning of each word, explain every part of it, and illustrate the formation of each.
5. Write brief notes on—Cærite cera digni — dispositæ ceræ — lana caprina — Parī iambi — gladiatorum familia — senatorius ordo — magistratuum insignia — fautor utroque pollice — hederā victrix — posticum — Tullianum.
6. And upon—Antonius Musa — Clarius deus — Cappadocum rex — Lycambes — Mænalis Diva — Manlius Torquatus — Osiris — Pindarus — Sosii — Typhoeus.
7. Put into Latin—To such men their life is a burden — Living, one in one fashion, one in another — We value our own possessions at little — There were some who believed him — Who I am you will learn from the man I send you — Give me some gold! I will; as soon as you tell me how much you want — Did you not see him run? I say that I did not — You may do it, my boy. Thank you, father, I'd rather not.
8. What do you mean by the historic infinitive; an ablative of quality; the locative case; a heteroclitē noun; a desiderative verb; a distributive numeral. Exemplify the use of each.
9. Distinguish the meanings of—Primum, primo; aut, vel; hic, iste, ille; lætitia, gaudium; frētum, frētum; sēra, sēra; quōque, quōque; pārens, pārens.

Latin.—II.

Three hours.

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

1. Translate—

Nec vero clarorum virorum post mortem honores permanerent, si nihil eorum ipsorum animi efficerent quo diutius memoriam sui teneremus. Mihi quidem nunquam persuaderi potuit animos dum in corporibus essent mortalibus vivere, quum exissent ex iis emori: nec vero tum animum esse insipientem quum ex insipienti corpore evasisset; sed quum omni admixtione corporis liberatus purus et integer esse coepisset, tum esse sapientem. Atque etiam quum hominis natura morte dissolvitur, ceterarum rerum perspicuum est quo quaeque discedat; abeunt enim illuc omnia unde orta sunt; animus autem solus nec quum adest nec quum discedit apparet. Jam vero videtis nihil esse morti tam simile quam somnum.

2. Translate—

Hic gelidi fontes, hic mollia prata, Lycori,
Hic nemus; hic ipso tecum consumerer ævo.
Nunc insanus amor duri me Martis in armis
Tela inter media atque adversos detinet hostes:
Tu procul a patria (nec sit mihi credere tantum!)
Alpinas, ah dura! nives et frigora Rhœni
Me sine sola vides. Ah te ne frigora lædant!
Ah tibi ne teneras glacies secet aspera plantas!
Ibo, et, Chalcidico quæ sunt mihi condita versu
Carmina, pastoris Siculi modulabor avena.
Certum est in silvis, inter spelæa ferarum,
Malle pati, tenerisque meos incidere amores
Arboribus; crescent illæ, crescetis, amores.

3. Put into Latin—

Yet Numa willed not that the Romans should offer costly sacrifices to the gods, but ordained that they should present corn and the fruits of the earth, and not any living thing: for he was a lover of husbandry and desired that the peaceful arts should flourish. Therefore he took pains to secure each man in the possession of his land, and fixed the bounds of each farm by landmarks or Terminæ, which it was sacrilege to remove, for they were under the protection of the god Terminus, and in honor of this god he established the yearly festival of the Terminalia. Moreover, he distributed all the lands of Rome into Pagi, and ordered the memory of this act to be kept alive by the feast of the Paganalia.

4. Put into Latin verse—

God is our refuge and strength, a very
present help in trouble.

Therefore will we not fear, though the
earth be removed, and though the moun-
tains be carried into the midst of the sea;

Though the waters thereof roar and
be troubled, though the mountains shake
with the swelling thereof.

There is a river the streams whereof
shall make glad the city of God; the
holy place of the Tabernacles of the
Most High.

God is in the midst of her, she shall
not be moved;

God shall help her, and that right early.

Greek.—I.

Four hours.

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

1. Translate—

(α) Τηλέμαχος δ' ἐτάροισιν ἐποτρύνας ἐκέλευσεν
ὄπλων ἄπτεσθαι· τοὶ δ' ὀτρύνοντος ἄκουσαν.
ἰστὸν δ' εἰλάτινον κοίλης ἔντοσθε μεσόδμης
στήσαν ἀείραντες, κατὰ δὲ προτόνοισιν ἔδησαν,
ἔλκον δ' ἰστία λευκὰ ἐυστρέπτοισι βοεῦσιν.
ἔπρησεν δ' ἄνεμος μέσον ἰστίον, ἀμφὶ δὲ κῦμα
στεῖρην πορφύρεον μεγάλ' ἴαχε νηὸς ἰούσης·
ἣ δ' ἔθειεν κατὰ κῦμα διαπρήσσουσα κέλευθον.
δησάμενοι δ' ἄρα ὄπλα θοὴν ἀνὰ νῆα μέλαιναν
στήσαντο κρητῆρας ἐπιστεφίας οἶνοιο,
λεῖβον δ' ἀθανάτοισι θεοῖς αἰειγενέτησιν,
ἐκ πάντων δὲ μάλιστα Διὸς γλαυκῶπιδι κούρῃ.

(b) Ἀκούσατε οὖν μου πρὸς θεῶν· καὶ ἂν μὲν ἐγὼ φαίνωμαι ἀδικεῖν, οὐ χρή με ἐνθένδε ἀπελθεῖν, πρὶν ἂν δῶ δίκην· ἂν δ' ὑμῖν φαίνωνται ἀδικοῦντες οἱ ἐμὲ διαβάλλοντες, οὕτως αὐτοῖς χρῆσθε, ὥσπερ ἄξιον. Ὑμεῖς δ' ἔφη, “ἴστε δήπον, ὅθεν ἥλιος ἀνίσχει καὶ ὅπου δύεται, καὶ ὅτι, ἂν μὲν τις εἰς τὴν Ἑλλάδα μέλλῃ ἵεναι, πρὸς ἐσπέραν δεῖ πορεύεσθαι· ἦν δέ τις βούληται εἰς τοὺς βαρβάρους, τοῦμπαλιν πρὸς ἔω. Ἔστιν οὖν ὅστις τοῦτο ἂν δύναιτο ὑμᾶς ἐξαπατῆσαι, ὥς ἥλιος ἔνθα μὲν ἀνίσχει, δύεται δ' ἐνταῦθα, ἐνθεν δὲ δύεται, ἀνίσχει δ' ἐντεῦθεν; Ἀλλὰ μὴν καὶ τοῦτό γε ἐπίστασθε, ὅτι βορέας μὲν ἔξω τοῦ Πόντου εἰς τὴν Ἑλλάδα φέρει, νότος δὲ εἰσω εἰς Φᾶσιν· καὶ λέγεται, ὅταν βορρᾶς πνέῃ, ὥς καλοὶ πλοῖ εἰσιν εἰς τὴν Ἑλλάδα. Τοῦτο οὖν ἔστιν ὅπως τις ἂν ὑμᾶς ἐξαπατήσῃ, ὥστε ἐμβαίνειν, ὅπότεν νότος πνέῃ; Ἀλλὰ γὰρ, ὅπότεν γαλήνη ᾗ, ἐμβιβῶ.

(c) ΜΗ. ὦ Ζεῦ Δίκη τε Ζηνὸς Ἥλιου τε φῶς,
νῦν καλλίνικοι τῶν ἐμῶν ἐχθρῶν, φίλαι,
γενησόμεσθα, κείς ὁδὸν βεβήκαμεν·
νῦν δ' ἐλπὶς ἐχθροὺς τοὺς ἐμοὺς τίσειν δίκην.
οὗτος γὰρ ἀνὴρ ἢ μάλιστ' ἐκάμνομεν
λιμὴν πέφανται τῶν ἐμῶν βουλευμάτων·
ἐκ τοῦδ' ἀναφόμεσθα πρηνήτην κάλων,
μολόντες ἄστν καὶ πόλισμα Παλλάδος.
ἦδη δὲ πάντα τὰμά σοι βουλευόμενα
λέξω· δέχου δὲ μὴ πρὸς ἡδονὴν λόγους.
πέμψας ἐμῶν τιν' οἰκετῶν Ἰάσονα
εἰς ὅψιν ἐλθεῖν τὴν ἐμὴν αἰτήσομαι·
μολόντι δ' αὐτῷ μαλθακοὺς λέξω λόγους,
ὥς καὶ δοκεῖ μοι ταῦτα καὶ καλῶς ἔχει,
γάμους τυράννων, οὓς προδοὺς ἡμᾶς ἔχει,
καὶ ξύμφορ' εἶναι καὶ καλῶς ἐγνωσμένα·
παῖδας δὲ μείναι τοὺς ἐμοὺς αἰτήσομαι,
οὐχ ὥς λιποῦσα πολεμίας ἐπὶ χθονὸς,
ἐχθροῖσι παῖδας τοὺς ἐμοὺς καθυβρίσαι,
ἀλλ' ὥς δόλοισι παῖδα βασιλέως κτάνω.

(d) ΧΟ. ἔρωτες ὑπὲρ μὲν ἄγαν ἐλθόντες οὐκ εὐδοξίαν
οὐδ' ἀρετὰν παρέδωκαν ἀνδράσιν· εἰ δ' ἄλις ἔλθοι
Κύπρις, οὐκ ἄλλα θεὸς εὐχαρις οὕτω.
μήποτ', ὦ δέσποιν', ἐπ' ἐμοὶ χρυσέων τόξων ἐφείης
ἡμέρῳ χρίσας ἄφυκτον οἰστόν.
στέργοι δέ με σωφροσύνα, δώρημα κάλλιστον θεῶν·
μηδέ ποτ' ἀμφιλόγους ὀργὰς ἀκόρεστά τε νείκη
θυμὸν ἐκπλήξας ἑτέροις ἐπὶ λέκτροις
προσβάλοι δεινὰ Κύπρις, ἀπτολέμους δ' εὐνὰς σεβίζουσ'
ὀξύφρων κρίνοι λέχη γυναικῶν.

2. Translate and explain—

- (a) οἱ πατρὸς μὲν ἐς οἶκον ἀπερρίγασιν νέεσθαι
Ἰκαρίου, ὥς κ' αὐτὸς ἐεδνώσαιο θυγάτρα
δοίη δ' ὅ κ' ἐθέλοι καὶ οἱ κεχαρισμένος ἔλθοι.
- (b) ἸΕΡΟΣ Ὁ ΧΩΡΟΣ ΤΗΣ ἈΡΤΕΜΙΔΟΣ. ΤΟΝ ἘΧΟΝΤΑ ΚΑΙ ΚΑΡΠΟΥΜΕ-
ΝΟΝ ΤΗΝ ΜΕΝ ΔΕΚΑΤΗΝ ΚΑΤΑΘΥΕΙΝ ἘΚΑΣΤΟΥ ἙΤΟΥΣ. ἘΚ ΔΕ
ΤΟΥ ΠΕΡΙΤΤΟΥ ΤΟΝ ΝΑΟΝ ἘΠΙΣΚΕΥΑΖΕΙΝ. ἌΝ ΔΕ ΤΙΣ ΜΗ ΠΟΙΗΙ
ΤΑΥΤΑ ΤΗΙ ΘΕῶΙ ΜΕΑΗΣΕΙ.
- (c) ὅταν δὲ χειμῶν ᾗ καὶ θάλαττα μεγάλη ἐπιφέρηται, οὐχ ὁρᾷτε ὅτι νεύματος μόνου ἔνεκα
χαλεπαίνει πρῶτους τοῖς ἐν πρῶρῃ καὶ κυβερνήτης τοῖς ἐν πρύμνῃ.
- (d) εἰ δὲ σὸς πόσις καὶνὰ λέχη σεβίζει, κείνῳ τόδε μὴ χαράσσον· Ζεὺς σοι τάδε συνδικήσει.
- (e) κλύω δ' ἀπειλεῖν σ', ὥς ἀπαγγέλλουσί μοι
τὸν δόντα καὶ γήμαντα καὶ γαμουμένην
δράσειν τι· τοῦτ' οὖν πρὶν παθεῖν φυλάξομαι.
- (f) χαλεπὰ γὰρ βροτοῖς ὁμογενῇ μίᾱς-
ματ' ἐπὶ γαῖαν αὐτοφόνταις ξυνωδ-
ὰ θεόθεν πίνοντ' ἐπὶ δόμοις ἄχῃ.

3. Parse these verbs—ἀπαλλαγῆναι, βεβρώσεται, γειναμένων, διόλωλε, ἔδονται, ἔστασαν, εὔρεθῃ, ἠλώκει, ἤγερθεν, φείσται, ὠσθήσει.
[In parsing give Future, Perfect, and Aorist, Active if in use.]
4. Give every Future, Perfect, and Aorist in use from ἔρχομαι, ἔημι, λαμβάνω, λείπω, λανθάνω, πυνθάνομαι, τρέμω, τρέφω.
5. Write down Pres. Ind. Act. τίθημι, Imp. Ind. Pass. τελευτάω, Perf. Ind. Pass. πράσσω, Fut. Ind. Mid. θνήσκω, 1 Aor. Imp. Pass. ἐνθυμέομαι.
6. What are the following words, what do they mean, and what is peculiar about their form :—
ἀγωνιοῦμαι, ἄνωχθι, γεγώτας, εἰκός, εἰκώ, ἐργηγορέναι, ἐλίμπανον, ἑώρων, ἐπέστα, κρείσσουν, ὄσσω, ὄτου, ὕμμι.
7. Derive fully ἀλγηδών, ἁλώσιμος, ἀνήμετος, ἀφροσύνη, εὐπλόκαμς, κακορραφίη, μεθορμίζω, νήπιος, πλούσιος, πιφαύσκομαι, ταυηλεγής, ψευδενέδρα.
- 8.—(a) Where were Pylos, Ephrya, Trapezus, Ephesus?
(b) Who were Hecate, Πελιάδες κοραι, Ino, ὁ Μαίας πομπαῖος ἄναξ, Sisyphus, ἡ ἀκραία θεός?
9. State what you know of Ethic Dative, Partitive Genitive, Attraction, Crasis, Compendious Comparison.
10. Scan—(a) τῷ δ' ἕως μὲν ῥ' ἐπέοντο μετὰ πνοιῆς ἀνέμοιο.
(b) οὐδ' ἄρ' ἔτι δὴν ἦστο, μενούνησεν δ' ἀγορεύειν.
(c) βοῶ μὲν ὄρκους, ἀνακαλεῖ δὲ δεξιᾶς.
(d) οἷον πατρώας μὴ ἀπολείπεσθαι χθονός.
(e) λῶστα βροτοῖσιν, τὰ δ' ὑπερβάλλοντ'.
11. Put into Greek—
Would you had died!—Would that I might die!—I will endure (ἀνέχω) faring ill.—I heard her say.—If he could, he would tell me.—1876 years.—That man asked me for a horse.—They bought provisions at a large price.—If we had known, nothing would be wanting.—These barbarians had their backs tattooed.—I opened the gate, and it stands open.
12. Compare ἄνω, ἀγαθός, ἐχθρός, ἐγγύς, κακός, μέσος, γλυκύς, ταχύς.

Greek.—II.

Three hours.

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

1. Translate—

Καταστάντος δὲ τοῦ Μίνω ναυτικοῦ πλωμιώτερα ἐγένετο παρ' ἀλλήλους· οἱ γὰρ ἐκ τῶν νήσων κακοῦργοι ἀνέστησαν ὑπ' αὐτοῦ ὅτεπερ καὶ τὰς πολλὰς αὐτῶν κατ' ἰκίξει, καὶ οἱ παρὰ θάλασσαν ἄνθρωποι μᾶλλον ἢ δὴ τὴν κτῆσιν τῶν χρημάτων ποιοῦμενοι βεβαιότερον ᾤκουν· καὶ τινες καὶ τείχη περιεβάλλοντο, ὥς πλουσιώτεροι ἑαυτῶν γιγνόμενοι. ἐφιέμενοι γὰρ τῶν κερδῶν οἱ τε ἦσσαν ὑπέμενον τὴν τῶν κρείσσωνων δουλείαν οἱ τε δυνατώτεροι περιουσίας ἔχοντες προσεποιούντο ὑπηκόους τὰς ἐλάσσους πόλεις. καὶ ἐν τούτῳ τῷ τρόπῳ μᾶλλον ἢ δὴ ὅντες ὕστερον χρόνῳ ἐπὶ Τροίαν ἐστράτευσαν. Ἀγαμέμνων τέ μοι δοκεῖ τῶν τότε δυνάμει προὔχων καὶ οὐ τοσοῦτον τοῖς Τυνδάρεω ὄρκους κατειλημμένους τοὺς Ἑλένης μνηστῆρας ἄγων τὸν στόλον ἀγείραι.

2. Translate—

ἐλῶ γὰρ αὐτὸν τῇδε θῆμέρα μόνῃ
δίας Ἀθάνας μῆνις, ὥς ἔφη λέγων.
τὰ γὰρ περισσὰ κἀνόνητα σώματα
πίπτειν βαρείαις πρὸς θεῶν δυσπραξίαις
ἔφασχ' ὁ μάντις, ὅστις ἀνθρώπου φύσιν
βλαστῶν ἔπειτα μὴ κατ' ἄνθρωπον φρονῇ.
κεῖνος δ' ἀπ' οἴκων εὐθὺς ἐξορμώμενος
ἄνους καλῶς λέγοντος ἠνέθη πατρός.
ὁ μὲν γὰρ αὐτὸν ἐννέπει, τέκνον, δόρει
βούλον κρατεῖν μὲν, σὺν θεῷ δ' αἰεὶ κρατεῖν.
ὁ δ' ὑψικόμπως κἀφρόνως ἡμείψατο,
πάτερ, θεοῖς μὲν κἂν ὁ μηδὲν ὦν ὁμοῦ
κράτος κατακτήσται· ἐγὼ δὲ καὶ δίχα
κείνων πέποιθα τοῦτ' ἐπισπάσειν κλέος.
τοσόνδ' ἐκόμπει μῦθον. εἶτα δεύτερον
δίας Ἀθάνας, ἥνικ' ὀτρύνουσά νιν
ἠνδᾶτ' ἐπ' ἐχθροῖς χεῖρα φοινίαν τρέπειν,
τότ' ἀντιφωνεῖ δεινὸν ἄρρητόν τ' ἔπος·
ἄνασσα, τοῖς ἄλλοισιν Ἀργείων πέλας
ἵστω, καθ' ἡμᾶς δ' οὐποτ' ἐκρήξει μάχη.

3. Translate into Greek—

Once upon a time I was voyaging, with a fair wind, having started for the Pillars of Hercules, and put forth into the Western Ocean. But the cause of my leaving home was the activity of my intellect and my longing for new things, and my desire to find out what the end of the ocean is, and who the men that dwell on the other side of it. So with this object I put on board plenty of food and sufficient water, and took to me fifty of my own age who were of the same mind as myself. Moreover, I prepared great store of arms, and got the best pilot I could persuade by money, and strengthened my ship, a pinnace, (*ἀκатор*), as expecting a long and stormy voyage. So we sailed for a day and a night with a fair wind—land being still in sight—and were carried along steadily: but next day at sunrise the wind increased and the sea rose, and darkness came on, and we could not even furl the sails. So we gave ourselves up to the wind, and were tempest-tost seventy-nine days, and on the eightieth, the sun suddenly bursting out, we see close to us an island, lofty and wooded. So we made to land, disembarked, and, as might be expected after so long hardship, we lay a good while on the ground. And when we rose up we chose thirty of us to guard the ship, and twenty to go with me to spy out what was in the island.

Pure Mathematics.—I.

Three hours.

DR. BROMBY, *Examiner.*

1. Multiply $1 - 2x + x^2$ by $1 + 2x + 3x^2 + 4x^3 + 5x^4$.
2. Divide $a^3 + b^3 + c^3 - 3abc$ by $a + b + c$.
3. Divide $px^3 - ax^2 - a^2x - (p - 2)a^3$ by $\frac{1}{a}x - x^{\frac{1}{3}}$.
4. Simplify $a + \frac{b-a}{1+ab} \times \frac{a}{b} \div \left(1 - a \cdot \frac{b-a}{1+ba}\right)$, and find the numerical value when $b = 20$ and $a = 1$.
5. Reduce the fraction $\frac{e^{2x}x^3 + e^{2x} - x^3 - 1}{e^{2x}x^2 + 2e^xx^2 - e^{2x} - 2e^x + x^2 - 1}$ to its lowest terms.
6. Reduce to its simplest form $\frac{\sqrt{18a^5b^3} + \sqrt{50a^3b^5}}{\sqrt{8ab^3} + \sqrt{2a^3b} - 8a^2b^2 + 8ab^3}$.
7. Solve the equations—
 - (a) $\frac{\sqrt{25 + x^2} + x}{\sqrt{25 + x^2} - x} = 4$.
 - (b) $\left. \begin{aligned} \frac{4x + 5y}{40} &= x - y \\ \frac{2x - y}{3} + 2y &= \frac{1}{2} \end{aligned} \right\}$
 - (c) $3(x - 2)^2 = 18 + (8x + 1)$.
 - (d) $\frac{x^2}{\sqrt{a} + \sqrt{b}} - (\sqrt{a} - \sqrt{b})x = \frac{1}{(ab^2)^{-\frac{1}{2}} + (a^2b)^{-\frac{1}{2}}}$.
8. A and B made a joint stock of £833, which, after a successful speculation, produced a clear gain of £153: of this B had £45 more than A. What did each person contribute to the stock?
9. A traveller sets out, and travels one mile the first hour, two the second, three the third, and so on. In five days afterwards another sets out on horseback, and travels 12 miles an hour. How long must he travel before he overtakes the first? Explain the meaning of the two answers.
10. Define Harmonical Progression, and prove that its terms are in arithmetical progression.
11. The sum of £700 was divided among 4 persons, whose shares were in geometrical progression; and the difference between the greatest and least was to the difference between the means as 37 to 12. What were their respective shares?
12. If $a + b$ varies as $a - b$, prove that $a^2 + b^2$ varies as ab .

Pure Mathematics.—II.

Four hours.

DR. BROMBY, *Examiner.*

EUCLID, Books I.—IV. ARITHMETIC.

1. If two angles of a triangle be equal to each other ; the sides also which subtend, or are opposite to, the equal angles, shall be equal to one another.
2. If from the ends of a side of a triangle, there be drawn two straight lines to a point within the triangle ; these shall be less than the other two sides of the triangle, but shall contain a greater angle.
3. Parallelograms upon equal bases and between the same parallels, are equal to one another.
4. To divide a given straight line into two parts, so that the rectangle contained by the whole and one of the parts, shall be equal to the square on the other part.
5. If any two points be taken in the circumference of a circle, the straight line which joins them shall fall within the circle.
6. A segment of a circle being given, to describe the circle of which it is the segment.
7. In a given circle to place a straight line, equal to a given straight line which is not greater than the diameter of the circle.
8. To inscribe a circle in a given equilateral and equiangular pentagon.
9. If a circle be described on the radius of another circle as its diameter, and any straight line be drawn through the point of contact cutting the two circles, the part intercepted between the greater and lesser circles shall be equal to the part within the lesser circle. Prove this.
10. If a circle be described passing through the opposite angles of a parallelogram and cutting the four sides, and the points of intersection be joined so as to form a hexagon, prove that the straight lines thus drawn are parallel to each other.
11. Simplify the fraction $\frac{2\frac{1}{4} - \frac{2}{3} \text{ of } 1\frac{5}{6}}{\frac{1}{5} \text{ of } 3\frac{1}{3} + \frac{1}{3}\frac{2}{3}}$.
12. How long would a column of men, extending 3000 feet in length, take to march through a street $\frac{3}{4}$ of a mile long, at the rate of 75 paces in a minute ; each pace being $2\frac{1}{4}$ feet?
13. A merchant sells tea to a tradesman at a profit of 60 per cent., but the tradesman becoming insolvent, pays only 7*s.* 6*d.* in the pound. How much per cent. does the merchant gain or lose by the whole transaction?
14. The area of a square flagstone is 1 sq. yd. 2 ft. 97 in.: find the length of its side.
15. What sum must I invest in the India stock at 219 which bears interest at $2\frac{1}{2}$ per cent., in order to insure an income of £500 a year clear of the tax of 9*d.* in the £?
16. The proportions in gunpowder are—saltpetre 76 parts, sulphur 11 parts, charcoal 13 parts ; how many lbs. of each material are required to manufacture 8 cwt.?
17. From a bill of £3 1*s.* 8*d.*, due 18 months hence, a tradesman deducts 5 shillings ; what is the rate per cent. at which the discount is calculated?
18. A store is 99 ft. long, 40 ft. broad, and 5 ft. deep ; how many bales can be stowed in it each 3 ft. 6 in. long, 2 ft. 8 in. broad, and 2 ft. 6 in. deep, leaving a gangway of 4 ft. broad?

Mathematics.—III.

Four hours.

DR. BROMBY, *Examiner.*

EUCLID, VI. and XI. TRIGONOMETRY. LOGARITHMS.

1. The sides about the equal angles of equiangular triangles are proportionals ; and those which are opposite to the equal angles are homologous sides, that is, are the antecedents or consequents of the ratios.
2. Upon a given straight line to describe a rectilineal figure similar, and similarly situated, to a given rectilineal figure.
3. In right-angled triangles, the rectilineal figure described upon the side opposite to the right angle, is equal to the similar and similarly described figures upon the sides containing the right angle.

4. If three straight lines meet all in one point, and a straight line stands at right angles to each of them in that point; these three straight lines are in one and the same plane.
5. If two parallel planes be cut by another plane, their common sections with it are parallels.
6. If a solid angle be contained by three plane angles, any two of them are greater than the third.
7. If two triangles stand on the same base, and their vertices be joined by a straight line, prove that the triangles are to each other in the same ratio as the parts of this line intercepted between the vertices and the base.
8. If two parallel planes be cut by a third plane in the straight lines AB, ab , and by a fourth plane in the straight lines AC, ac respectively, the angle BAC will be equal to the angle bac . Prove this.
9. What is meant by the natural unit in measuring an angle? If an angle were $\frac{2}{3}$ of this natural unit, how many degrees and minutes would represent it?
10. Investigate the numerical values of sines and cosines of 45° and 30° . Thence deduce the value of $\sin 15^\circ$.
11. Prove the formula $\sin(m+1)A = 2 \sin mA \cos A - \sin(m-1)A$; and point out the use which can be made of it in the construction of mathematical tables of sines.
12. Prove the formula $(\cos a \pm \sqrt{-1} \sin a)^m = \cos ma \pm \sqrt{-1} \sin ma$.
13. Prove that $\frac{\sin 2a + 2 \sin^2 a - 2 \sin a}{1 - \cos a} = 4 \cos \frac{a}{2} \left(\cos \frac{a}{2} - \sin \frac{a}{2} \right)$.
14. Given $a^2 \sin \theta \sin \phi + b^2 \cos \theta \cos \phi = 0$, express $\cos \theta$ in terms of ϕ .
15. Having given the two sides a, b , of the triangle ABC equal respectively 9459.31 and 8032.58, and the angle $A = 71^\circ 3' 34''$; find the angle C , correct to seconds.
16. A person ascends 70 yards up a slope of 1 in $3\frac{1}{2}$ from the edge of a river, and observes the angle of depression of an object on the opposite shore to be $2^\circ 15'$; find the breadth of the river in yards.

Natural Philosophy.

Three hours.

DR. BROMBY, *Examiner*.

1. Two small pulleys run on nails fixed in a vertical wall. A string is run over both, having weights of 3 lbs. and 4 lbs. attached to its extremities; and a third weight of 5 lbs. is fastened to the string at a point between the pulleys: how can it be shown by actual measurement, after the apparatus has settled in a state of rest, that the parallelogram of forces is true?
2. What is the specific gravity of a body? What equation connects it with its weight? When it is said that the momentum of a body equals its velocity multiplied by the quantity of matter, what are the units of measurement?
3. If three forces keep a point at rest, prove that the angle between the two greatest is larger than the angle between any other two.
4. A and B are two fixed pulleys in the same horizontal line. A string, to which a ring is fastened at one end, is passed over both pulleys, and its other end passed through the ring; and from that other end a weight is suspended. Find inclination to the horizon of either portion of the string below the pulleys.
5. Find the distance from the right angle, of the centre of gravity of a right-angled triangle whose sides are 8 and 9.
6. An isosceles triangle, whose sides are each 5 feet, and base 6 feet, is divided by a line parallel to the base and bisecting the altitude; find the distance from the base of the centre of gravity of the lower portion of the divided triangle.
7. In a system of pulleys, where each cord is attached to the weight, there are two moveable pulleys, each weighing $3\frac{1}{2}$ lbs. What power is required to support a weight of 7 cwt.?
8. How long must a body fall to acquire a velocity of 375 at a point of the earth where gravity is 32.195?
9. A railway has an incline of 1 in 61: find the velocity acquired in running down 2989 feet; neglecting friction and taking gravity at 32.

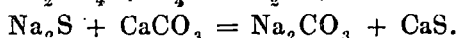
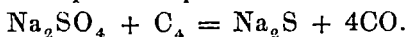
10. If a stone be thrown at an angle α with the horizontal plane, and with a velocity v , prove that the time before it will again strike the ground is $\frac{2v \sin \alpha}{g}$.
11. The length of an inclined plane is 400, its height 250; a body falls from rest from the top of the plane. What time will it be in falling through 300 feet? and what velocity will it have acquired within 50 feet of the bottom of the plane?
12. A body weighing 10 lbs., moving at the rate of 5 miles an hour, overtakes a body of 5 lbs. moving at the rate of 3 miles an hour: find their velocities after direct impact, supposing them perfectly elastic.
13. Show how the specific gravities of two fluids may be compared by weighing in each a solid, whose weight in air is known.
14. If a barometer were sunk 20 feet in a lake, what would be the effect on the mercurial column? The specific gravity of mercury is 13.57.
15. Explain fully the principle of the fire-engine.
16. The barrels of an air-pump, and of a condenser, are $\frac{1}{10}$ of their receivers: compare the densities of the air in them after three turns.

Non-metallic Chemistry.

Three hours.

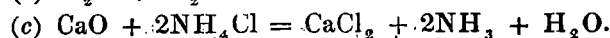
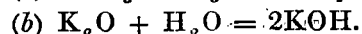
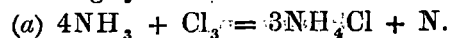
DR. BROMBY, *Examiner*.

1. What is a pneumatic trough? How can volumes of gas be as accurately measured as pints of liquid? What is the use of a funnel in such operations?
2. What is meant by the Atomic theory? Illustrate it by the combinations of O and N, giving to each its atomic weight. What is the difference between an atom and a molecule?
3. What is the number of chemical elements at present known? How many of these are non-metallic? Name eight of these latter; and give in round numbers their combining weights.
4. Of what two main elements is the atmosphere constituted, and in what proportions? What are the facts which go to prove that they are mixed together only, and not combined?
5. What is the principle of the oxyhydrogen blow-pipe? Explain its different uses.
6. By what means are chemical elements detected in the sun and stars?
7. What is meant by the osmose diffusion of gases? It being ascertained that the velocity of their diffusion is inversely proportional to the square roots of their densities, find the rate at which O is diffused; it being known that H is diffused at the rate of 3.83, and the ratio of density of H to O being .0693 to 1.1056.
8. Define the term "allotropic"; mention three allotropic forms of C: and state to what economic purposes each is applied.
9. When a flame is produced by a blow-pipe through gas, it appears to be divided into three distinct parts; explain the nature and properties of each of them.
10. What are the chief constituents of glass? How does English flint glass differ from German glass, both in character and constitution? What is meant by "cullet," and what by "annealing" in the manufacture of glass?
11. State the percentage of carbonic acid usually floating in the atmosphere? What percentage makes the air unfit for respiration? What is the percentage on an average when it leaves the lungs?
12. How do you account for the calcareous deposit which fouls the bottoms of steam boilers in some districts?
13. What is salt-cake? Describe the process of its manufacture.
14. If in the process of chemical distillation there should be any probability of slight explosions, what safeguard is employed?
15. The two following formulæ explain the process of the manufacture of sodium carbonate:—



Interpret the process.

16. Expand into words the following symbols:—



17. Explain the terms—*Lixiviation, anhydrous, dialysis, efflorescence, deliquescence, supersaturate, rectification*.

Geology.

Three hours.

DR. BROMBY, *Examiner*.

1. The Science of Geology has been subdivided into three branches,—*Physical Geography, Mineralogy, and Palæontology*. What do they severally treat of?
2. What are the constituent elements of the atmosphere? What is the cause of its being denser at the surface of the earth than higher up? What is its pressure on a square inch at the sea-level?
3. State what you know respecting the secular movements of the magnetic needle, and the earth's pole.
4. What epithets are given to mineral waters, according as they contain salt, iron, flint, or chalk? How do you account for the last two ingredients being deposited as the waters issue from the earth?
5. Lias is described as an intimate intermixture of lime and clay. Under what circumstances must its formation have taken place? Account also for volcanic lava and ashes being found similarly mingled and interstratified with the sedimentary matter of the ocean.
6. In tracing the stratification of a country we meet with *faults, slips, hitches, dykes, lodes*: what is the difference between these several phenomena? How do you account for the presence of metal in a blind lode?
7. What is meant by *metamorphism*? What are the various agencies by which it is effected?
8. What are the main characteristics which enable the geologist to distinguish between exogenous and endogenous wood? between a dicotyledonous and a monocotyledonous leaf? between the branch of a terrestrial tree and a stump of seaweed? between the texture of a shell and of a bone? between the bone of a quadruped and the bone of a bird?
9. What is meant by the following terms?—*Hypozoic, acicular, alluvial, diluvial, botryoidal, conchoidal, vesicular, talus, shingle, scoria, moraine, geode*?
10. Describe or sketch a *calamite*, an *ichthyosaurus*, an *eozone*, a *glyptodon*, a *pecten*, a *cycas*, an *encrinite*, a *scaphite*.
11. Of what does tripoli consist? What are the chemical elements of plumbago, alabaster, and the Lydian stone? To what uses have all these been severally put?
12. What is adipocere? and what are Cuthbert's beads?
13. What is an Artesian well? Why so named?
14. Name the minerals and fossils now shown to you.

Drawing.

FROM THE FLAT.

Two hours.

H. HUNTER, *Esq., Examiner*.

Make a careful outline of the subject given—to the same size, but without any means of measurement.

DRAWING FROM MODELS.

Two hours.

Draw the wash basin and jug placed on a chair before you, and shade as far as time will allow.

The Examiner will indicate the size of the drawing.

Drawing.**PERSPECTIVE.**

Three hours.

H. HUNTER, *Esq.*, Examiner.**Work out the following Problems :—**

No. 1. A row of three square pillars, standing one behind the other, with a pyramid half the height of pillar, on top of each. The face of the first pillar touches the "picture plane" A. A., and is marked 1, 2, 3, 4,—the plan in red underneath. The pillars are to have spaces between them equal to their bases. "Horizontal line" B. B., "perspective centre" O., "distance point" D. Draw the pillars as though they were transparent.

No. 2. A cylindrical column standing on a square base and surmounted by a square slab. The faces of the base and top slab are drawn, and touch the "picture plane" A. A. These are to be completed, and the circle of column is to be shown in perspective on the upper surface of one and the under surface of the other. Plan of column and square base is given in red. "Horizontal line" B. B. "Centre" O. "Distance point" D. This is also to be drawn as if transparent.

No. 3. A skeleton cube, having square solid angles, to be drawn in angular perspective—the plan being given in red. "Transparent plane," marked A. A. "Horizontal line" B. B. "Ground line" C. C. "Centre" and "station point" O.

No. 4. Three squares lying flat on the ground, their front and back lines being parallel to the "picture plane," and their sides at right angles to it. Mark on the drawing the "picture plane," "horizontal line," perspective centre, and "distance points." Then raise perpendiculars on each square, and form the figures into solids.

Rule the lines of the various figures firmly, and dot in all constructional lines.

MUSIC

DEGREE OF ASSOCIATE OF ARTS 1883

J. SUMMERS ESQ. MUS. BAC. OXON.
EXAMINER.

Three hours

I. Transpose the following air to the key of E^b and employ the Tenor or C clef



V. Modulate in four parts (compressed score) Treble, Alto, Tenor, Bass,
 from A^b to C
 from B to A
 from G to B^b

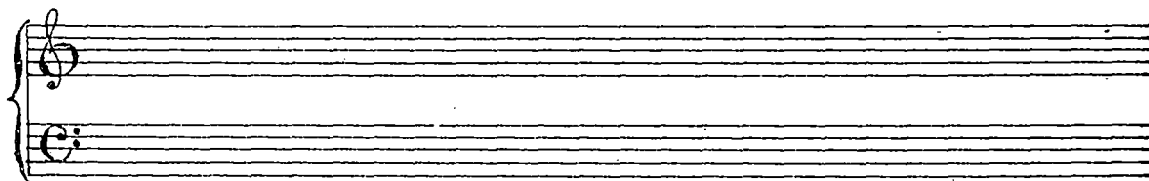
VI. Harmonise the following air in four parts (compressed score)



VII. Harmonise the following figured bass, adding Tenor and Bass (compressed score)

The image shows two systems of musical notation for exercise VII. Each system consists of a figured bass line written in bass clef with a key signature of one sharp (F-sharp). The first system contains 10 measures, and the second system contains 10 measures. The notes are: System 1: F#4, G4, A4, B4, A4, G4, F#4, E4, D4, C4; System 2: B3, A3, G3, F#3, E3, D3, C3, B2, A2, G2.

VIII. Give examples (in compressed score) of the principal harmonic cadences



IX. Name and describe the principal forms of Vocal and Instrumental compositions.

X. Name the principal works of the following composers, and their chief characteristics
 Handel, Bach, Beethoven, Haydn, Mendelssohn, Verdi, Rossini
 Wagner, Brahms, and Sullivan.

TASMANIAN COUNCIL OF EDUCATION.

Hobart, 16th August, 1882.

EXAMINATION FOR THE DEGREE OF ASSOCIATE OF ARTS, 1883.

THE Council of Education have directed the publication of the following Regulations and Scheme of Examination for the Degree of Associate of Arts for the year 1883.

By Order of the Council,

GEORGE RICHARDSON, *Secretary.*

REGULATIONS.

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 Council.

The first day of September in each year is fixed and appointed as the date upon which the ages of Candidates for the Degree of Associate of Arts shall in each year be ascertained and computed.

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 pass in that subject, attaining the standard of marks to be fixed by the Council.

Every successful Candidate for the Degree of Associate of Arts shall receive a Certificate of having obtained such Degree; and such Certificate shall be 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 attained.

Candidates who at any Examination for the Degree of Associate of Arts have passed in any number of subjects less than four shall be entitled to receive a Certificate in the following form:—

CERTIFICATE OF LESS THAN FOUR SUBJECTS.

Whereas by the Regulations of the Tasmanian Council of Education no person is entitled to obtain the Degree of Associate of Arts unless he (or she) has at one and the same Examination passed in four, at least of the subjects prescribed for the Examination for the said Degree: and whereas Candidates who at any Examination for the said Degree have passed in any number of subjects less than four are entitled to receive a Certificate thereof: and whereas the Candidate hereinafter named has passed in certain of the said subjects, although not in a sufficient number for obtaining the Degree of Associate of Arts: Now these are to certify that at an Examination for the Degree of Associate of Arts under the Tasmanian Council of Education held in 18
 passed in the following subject (that is to say)

Hobart, Tasmania,
 day of

18 .

President.
Secretary.

The examination will comprise the subjects mentioned in the following sections, in four of which, at least, including English, the Candidate must pass:—

- | | |
|----------------------|---|
| 1. English. | 8. The Elementary Principles of Hydrostatics and Mechanics. |
| 2. Latin. | 9. The Elements of Chemistry. |
| 3. Greek. | 10. Zoology and Botany. |
| 4. French. | 11. Geology. |
| 5. German. | 12. Drawing. |
| 6. Italian. | 13. Music. |
| 7. Pure Mathematics. | |

MINOR SCHOLARSHIPS FOR ASSOCIATES OF ARTS.

A Minor Scholarship of the value of £40 per annum, tenable for two years, will be awarded to each of the two Male Associates being under the age of nineteen years who stand highest on the Class List for the year, and who declare their intention of continuing their studies with a view of competing for the Tasmanian Scholarships.

Payments on account of each Minor Scholarship will be made quarterly upon the Council receiving such proof as it may require that the general conduct of the holder is satisfactory, and that he is diligently pursuing his studies for the Tasmanian Scholarship Examination; and in the event of the holder not procuring such proof, the Council may declare the Minor Scholarship to be vacant.

In case any Minor Scholarship becomes vacant by the declaration of the Council or by the death or resignation of the holder, the Associate whose name stands next highest on the Class List, and who is not the holder of a Minor Scholarship, shall be entitled, upon complying with the terms aforesaid, to such Minor Scholarship during the residue of its currency.

NOTE.—Candidates for the Degree of Associate of Arts are required to send in their applications for admission to the Examination to the Secretary to the Council of Education not later than the 31st July. Printed forms of application may be had on application to the Secretary.

SCHEME of Examination for the Year 1883.

1. **ENGLISH.**—*Language.*—The Candidate will be examined in *Shakespeare's King John*, and will be required to write a short original composition, or an essay founded upon some abstract of facts furnished to him. *History.*—The outlines of English History, including the Succession of Sovereigns. *Geography.*—General.

2. **LATIN.**—Grammar. Sallust, *Catiline*; Ovid, *Fasti, Book I*; Horace, *Epistles, Book I*. Passages for translation from other Latin authors; and passages of English for translation into Latin Prose and Verse.

3. **GREEK.**—Grammar. Xenophon, *Anabasis, Book V.*; Euripides, *Medea*. Homer, *Odyssey, Book II*. Passages for translation from other Greek authors, and a passage of English for translation into Greek prose.

4. **FRENCH.**—Grammar. Passages for translation from French into English, and from English into French prose.

5. **GERMAN.**—Grammar. Passages for translation from German into English, and from English into German prose.

6. **ITALIAN.**—Grammar. Passages for translation from Italian into English, and from English into Italian prose.

7. **PURE MATHEMATICS.**—(a) Arithmetic and Algebra, (b) Euclid, *Books I. II. III. IV. VI. XI. to the end of Proposition 21*, Plane Trigonometry, and the use of Logarithms. Candidates to pass in Mathematics need not present Euclid, Books VI. and XI., Plane Trigonometry, and the use of Logarithms, but must present them as well as the other subjects to obtain a *First Class in Mathematics*.

8. **NATURAL PHILOSOPHY.**—Elements of Statics, Dynamics, and Hydrostatics, treated mathematically.

9. **CHEMISTRY.**—The non-metallic elements and the laws of combination, with the use of symbolic notation.

10. **ZOOLOGY AND BOTANY.**—The description and classification of animals, their habits and geographical distribution; and 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.

11. **GEOLOGY.**—Elements of Physical Geography and Geology. Specimens of rocks and fossils will be given for identification.

12. **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.

13. **MUSIC.**—The Elements of Harmony and Musical Composition, with some knowledge of the history and principles of the Art.

SCALE OF MARKS.

		<i>Full Marks obtainable.</i>
1. English	{ Language	600
	{ History	250
	{ Geography	250
2. Latin		800
3. Greek		800
4. French		550
5. German		550
6. Italian		550
7. Pure Mathematics	{ (a) Arithmetic and Algebra	500
	{ (b) Euclid and Trigonometry	500
8. Natural Philosophy		250
9. Chemistry		250
10. Zoology and Botany		250
11. Geology		250
12. Drawing		250
13. Music		400
		<i>Marks.</i>
Standard for First Class		2350
Standard for Second Class		1900
Standard for Third Class		1350