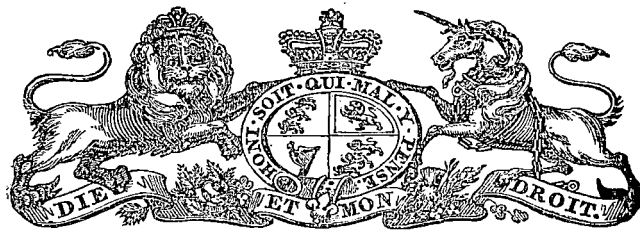


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PARLIAMENT OF TASMANIA.

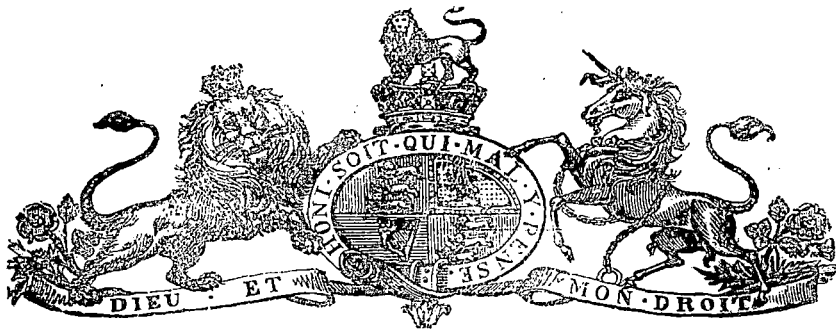
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ASSOCIATE OF ARTS DEGREE :

EXAMINERS' REPORT, 1885.

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



## TASMANIAN COUNCIL OF EDUCATION.

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### DEGREE OF ASSOCIATE OF ARTS, DECEMBER, 1885.

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**I**N 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.

FREDERICK GRUEBER THORNE.  
GUSTAVE HEUZE HOGG.  
CHARLES LESLIE CUTMEAR.

#### SECOND CLASS.

ERIC WEBSTER.

#### THIRD CLASS.

MAUD BESTLAND BARNARD.

#### Candidate over 19 Years of Age.

The Council has further directed the publication of the name of the under-mentioned Candidate over the age of nineteen years who has 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 :—

#### THIRD CLASS.

JAMES HENRY MACKAY.

By Order of the Council,

GEORGE RICHARDSON, *Secretary*.

*Hobart, 22nd December, 1885.*

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## TASMANIAN COUNCIL OF EDUCATION.

## EXAMINATION FOR THE DEGREE OF ASSOCIATE OF ARTS, 1885.

## EXAMINERS' REPORT.

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

WE have the honour to present to you our Report upon the Examination for the Degree of Associate of Arts, which began on Thursday, 10th December, and was concluded on Friday, 18th December.

Eleven Candidates presented themselves, three being over 19 years of age.

I. ENGLISH LANGUAGE, HISTORY, AND GEOGRAPHY.—Eleven candidates offered this subject, of whom ten passed; two with credit. Full marks, 1100. Highest obtained, 756. Average of those who passed, 597.

In English the book of Spenser's "Faerie Queene" prescribed for examination had been prepared with evident care and thoroughness. It may be remembered that in a recent Report the Examiners complained of the Candidates' imperfect acquaintance with etymology. It would appear to be necessary to draw attention again to shortcomings in this respect. A question upon one of the most elementary laws of etymology asked in this paper was correctly answered by only one Candidate. The answering in History and Geography was generally good.

II. LATIN.—Eleven candidates presented themselves, of whom six passed; two with credit. Full marks, 800. Highest obtained, 642. Average, 444.

The passages from the prescribed authors were generally well rendered; allusions were accurately explained, and the translation at sight was done creditably by most of the Candidates. The weakest parts of their work were their answers to the grammar questions, and Latin verse-writing. Several of the Candidates scarcely even attempted the grammar, although the questions were of a decidedly elementary character. Only one showed any ability at verse-writing; his attempt, it must be added, was exceedingly creditable. None of the others exhibited even a superficial acquaintance with the subject. It seems fairly open to doubt whether it is worth while continuing to prescribe verses as an essential part of the Examination, if it has not the effect of encouraging attention to this branch of scholarship in the schools of the Colony. Possibly, too, it is a study suited to a somewhat more advanced stage of knowledge than it is reasonable to expect in the case of the average Candidate for the Associate's Degree.

III. GREEK.—Six Candidates presented themselves, of whom four passed; one with credit. Full marks, 800. Highest obtained, 557. Average, 440.

Thorne's renderings of the passages set for translation at sight are deserving of special praise. In the present year the Examiners have assigned to the unprepared work in Greek, as well as in Latin, the same number of marks as they have given to the prescribed authors. This course was recommended in the Report for the year 1883, and seems hardly to need justification. There can surely be no question that, as a test both of ability and knowledge, composition and translation at sight, which are among the few subjects that absolutely defy all efforts at "cramming," must be ranked as of at least equal importance to the paper on specified books.

IV. FRENCH.—Eleven Candidates. Ten passed; three with credit. Full marks, 550. Highest obtained, 417. Average, 321.

The translations at sight were good, and the answers to grammar questions generally satisfactory. The weakest point was the translation of English into French, which was marked by an excessive literalness and disregard of difference of idiom in the two languages.

V. GERMAN.—Three Candidates. All passed; none with credit. Full marks, 550. Highest obtained, 289. Average, 263.

VI.—ITALIAN.—Three Candidates. Two passed; one with credit. Full marks, 550. Highest obtained, 378. Average, 304.

Thorne's translations from English into Italian, and *vice versa*, are reported as deserving of honorable mention, and his general knowledge of the language is stated to be very satisfactory.

J. Mackay's translation of the passage from Dante was the best, but he was far behind Thorne in every other answer. His total of marks would, however, have been much higher, had he made any attempt to translate the English sentences into Italian.

VII.—PURE MATHEMATICS.—Eleven Candidates. Seven passed; two with credit. Full marks, 1000. Highest obtained, 754. Average, 469. Eight of the Candidates tried the third and more advanced paper on Trigonometry and Geometry. All of those who had neglected this, the higher part of the mathematical work, were unsuccessful. Two, namely Thorne and Cutmear, have obtained credit. Both of them answered excellently. The questions in the higher Algebra—notably in the Theory of Series—and the Geometrical Exercises were barely touched by the Candidates.

VIII. NATURAL PHILOSOPHY.—Three candidates. All passed; two, Thorne and Hogg, with credit. Full marks, 250. Highest obtained, 149. Average, 124.

IX. CHEMISTRY.—Six Candidates. Three passed; one, Hogg, with credit. Full marks, 250. Highest obtained, 148. Average, 115. The Candidates showed a very imperfect acquaintance with the Atomic Theory—the fundamental hypothesis of the science.

X. GEOLOGY.—Three Candidates. Two passed; one, Hogg, with credit. Full marks, 250. Highest obtained, 125. Average, 115. The part of this paper dealing with physical geography was very badly answered. The examiner has also to report that the identification of minerals and fossils was extremely defective. Hence no prize will be awarded in this subject.

XI. ZOOLOGY AND BOTANY.—One Candidate, Miss Barnard, who passed with credit, obtaining 160 marks out of 250.

Before leaving the science subjects, as the papers this year in Mathematics, Chemistry, and Geology are somewhat more difficult than in preceding years, it may be well to state that the examiner considered that the printed Regulations prescribe a more extended knowledge of the subjects named than would seem to have been demanded of Candidates at former examinations.

XII. DRAWING.—Four Candidates. All passed; one with credit. Full marks, 250. Highest obtained, 195. Average, 140. Miss Barnard, who obtained credit, is recommended for a prize. Her freehand drawing from the model and flat is reported to be very clever and deserving of special mention. The perspective work was fairly satisfactory throughout.

XIII. MUSIC.—The examination in this subject yielded a very sorry result. Both candidates who presented themselves failed. The highest marks obtained were 50 out of 250. Average 45.

In concluding this Report the Examiners desire to pay to Thorne the compliment of a specially honourable mention for the soundness and brilliancy of his answering throughout the whole examination. He takes the first place in French, Greek, Latin, Italian, Mathematics, and Natural Philosophy, and has obtained credit in seven subjects, the total of his marks amounting to 3733.

Gustave Hogg also deserves a word of praise for the excellence and evenness of his work. He stands first in English, and has obtained in all six credits, with the very respectable total of 2995 marks.

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

The Council's Gold Medal .....	F. G. Thorne.
First Prize for English .....	G. H. Hogg.
First Prize for Latin .....	F. G. Thorne.
First Prize for Greek .....	F. G. Thorne.
First Prize for French .....	F. G. Thorne.
First Prize for Italian .....	F. G. Thorne.
First Prize for Mathematics.....	F. G. Thorne.

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

Second Prize for English .....	F. G. Thorne.
Second Prize for French .....	G. H. Hogg.
Second Prize for Latin .....	G. H. Hogg.
Prize for Chemistry .....	G. H. Hogg.
Second Prize for Mathematics .....	C. L. Cutmear.
Prize for Natural Philosophy .....	F. G. Thorne.
Prize for Zoology and Botany ....	Maud B. Barnard.
Prize for Drawing .....	Maud B. Barnard.

SPECIAL PRIZE.

Silver Medal as Senior Female Associate of the  
year..... Maud B. Barnard.

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

ALEX. LEEPER, LL.D., *Examiner-in-Chief.*

December 21, 1885.

EXAMINATION FOR THE DEGREE OF ASSOCIATE OF ARTS, 1885.

GENERAL CLASS LIST.

FIRST CLASS.

No.	NAME.	AGE. 1 Sept. 1885.	MARKS.	AWARDS.
		yrs. mths.		
1	Thorne, Fredk. Grueber	16 11	3733	{ Council's Gold Medal. First Prize for Latin. First Prize for Greek. First Prize for French. First Prize for Italian. First Prize for Mathematics. Second Prize for English. Prize for Natural Philosophy.
2	Hogg, Gustave Heuzé ...	16 7	2993	{ First Prize for English. Second Prize for Latin. Second Prize for French.
3	Cutmear, Charles Leslie...	17 3	2399	{ Prize for Chemistry. Second Prize for Mathematics.

SECOND CLASS.

4 | Webster, Eric .....| 18 1 | 2274 | —

THIRD CLASS.

5	Barnard, Maud B. ....	17 9	1597	{ Silver Medal as Senior Female Associate of the year. Prize for Zoology and Botany. Prize for Drawing.
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ALEX. LEEPER, LL.D., *Examiner-in-Chief.*

Hobart, 21st December, 1885.

# 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>Zoology and Botany.</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.	FIRST CLASS.
Hogg Thorne	Thorne Hogg	Thorne	Thorne Hogg Barnard, Miss	None	Thorne	Thorne Cutnear	Thorne Hogg	Hogg	Hogg	Barnard, Miss	Barnard, Miss	None
SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.	SECOND CLASS.
Webster Barnard, Miss Cutnear	Cutnear Webster	Hogg Webster Cutnear	Cutnear Webster	Webster Barnard, Miss	None	Hogg Webster	None	Thorne	None	None	None	None

7

December 21, 1885.

ALEX. LEEPER, LL.D., Examiner-in-Chief.

# TASMANIAN COUNCIL OF EDUCATION.

EXAMINATION for the Degree of ASSOCIATE OF ARTS, December, 1885.

TABLE OF MARKS.

No.	NAME.	DATE OF BIRTH.	SCHOOL.	TEACHER.	English.	Latin.	Greek.	French.	German.	Italian.	Pure Mathematics.	Natural Philosophy.	Chemistry.	Zoology and Botany.	Geology.	Drawing.	TOTAL.	CLASS.
					[Maximum No. of Marks.. 1100	800	800	550	550	550	1000	250	250	250	250	250		
1	Thorne, Frederick Grueber	16 Oct. 1868	Hutchins, Hobart	Rev. J. V. Buckland, B.A.	738 c	642 c	557 c	417 c	—	378 c	754 c	149 c	98	—	—	—	3733	First.
2	Hogg, Gustave Heuzé	30 Jan. 1869	Church Grammar, Launceston	Rev. W. H. Savigny, M.A.	756 c	538 c	446	390 c	—	—	458	134 c	148 c	—	125 c	—	2995	First.
3	Cutnearn, Charles Leslie	7 June, 1868	Hutchins, Hobart	Rev. J. V. Buckland, B.A.	560	395	357	346	—	—	741 c	—	n.p.	—	—	—	2399	First.
4	Webster, Eric	9 Aug. 1867	Hutchins, Hobart	Rev. J. V. Buckland, B.A.	615	380	399	312	289	—	279	—	n.p.	—	—	—	2274	Second.
5	Barnard, Maud Bestland	23 Dec. 1867	Mrs. Barnard's, Hobart	Mrs. Barnard	587	n.p.	—	382 c	273	—	n.p.	—	—	160 c	—	195 c	1597	Third.
Candidate over 19 Years of Age.																		
1	Mackay, James Henry	—	Hutchins, Hobart	Rev. J. V. Buckland, B.A.	659	323	—	239	—	231	249	—	—	—	—	120	1821	Third.

Hobart, December 21, 1885.

ALEX. LEEPER, LL.D., Examiner-in-Chief.

# EXAMINATION PAPERS.

## English.

Three hours.

DR. LEEPER, *Examiner.*

### *Spenser's Faery Queene, Book I.*

1. What are Despair's arguments for suicide in Canto IX.?
2. "Her faithful knight fair Una brings  
To house of Holinesse,  
Where he is taught repentance, and  
The way to heavenly blesse?"  
Sketch the contents of the canto thus headed.
3. What probable reference to Spenser's reception at Court occurs in Canto III.?
4. Why, according to Spenser, was St. George so named?
5. Who are Malvenu and Humilta?
6. Write a note upon the versification of the Faery Queene. What was Spenser's model? Did he improve upon it?
7. Write explanatory and etymological notes upon the following:—The raskall many; battaille to darrayne; treen mould; impe; forbidden bains; sithens; scryne; boughtes; faytor; portesse; lazar; gossib; amate; welkin; yede.
8. In what sense, now obsolete, are the following used by Spenser:—Influence, edify, read, equipage, sad, repine, uncouth, unwary, forsake, convey?

Quote the context wherever you can.

9. It has been said that "Spenser never smiles." Discuss this remark, illustrating your view by reference to passages.

or

In what do you consider the charm of Spenser's great poem consists? What would you say are its defects?

## Grammar.

1. What are the arguments for and against the introduction of phonetic spelling?
2. Distinguish between—The six first, the first six. Each other, one another. Shall, will. Beside, besides. Latter, later. Older, elder.
3. What is the plural of—Court-martial; deputy-quartermaster-general; index; phenomenon; oasis; genus; lord-justice; cloth; die?
4. Which mode of spelling the following words do you prefer, and why?

Chemist *or* chymist  
Diocese *or* diocess  
Ecstasy *or* extasy  
Traveller *or* traveler  
Ploughman *or* plowman  
Benefited *or* benefitted  
Neighbour *or* neighbor  
Honour *or* honor  
Centered *or* centred.

5. Write a short life of Spenser;

or

A short essay upon the following:—

"Home-keeping youths have ever homely wit."

6. Analyse the following:—

- (a) Now He that made me knows I see thee ill.
- (b) Of a life which its owner was bent on hiding there can be but little to tell.
- (c) O young lord-lover, what sighs are those,  
For one that will never be thine?

7. Is there anything faulty in the following sentences? If so, what would be the correct form in each case?

"M. Guizot writing of the stirring times in which he played a prominent part in the tone of an impartial spectator."—*Times*.

"The swimmers did not, as was to be expected, lack a numerous or enthusiastic audience."—*Daily News*.

"This roused the Parisian audience to rapturous applause. I cannot think it will do so in England."

"But you will bear it as you have so many things."

"It is perhaps the finest of all Juvenal's satires, the mightiest, the sternest, and the most deeply impressed, not merely by a sense of the bitterness, but also of the deep responsibility of human life."—*Westminster Review*.

"He is neither disposed to sanction bloodshed nor deceit."—SHELLEY.

8. What is Grimm's Law? Give examples.
9. What is bathos? Give an instance.
10. What are *hybrids* in language? Mention some that are recognised as good English.

### History and Geography.

Three hours.

DR. LEEPER, *Examiner*.

1. What were the charges against (a) Strafford, (b) Clarendon, (c) Warren Hastings?
  2. What were the causes of the Wars of the Roses? Give a pedigree showing the rival claims.
  3. What did Magna Charta secure for Englishmen?
  4. What is the difference between a Whig and a Tory? Give the derivation of the names.
  5. What were the claims of James 1st and of George 1st to the English Crown?
  6. The first and last kings of Norman, Lancaster, and York lines?
  7. Mention the principal measures of political reform in England during the present century?
- 
1. What are the English "Home Counties"?
  2. Write a note upon the sources of national wealth in France.
  3. Where are the following:—Belgrade, Eisenach, Gallipoli, Belleek, San Remo, Suakim, Plevna, Lausanne, Weimar, Delhi, Bunker's Hill, Ely, Trèves? Can you mention any matters of interest connected with these places?
  4. Explain accurately the terms—Watershed, Zodiac, the Nebular Theory, Isothermal Lines.
  5. What industries are connected with the following places:—Coventry, Glasgow, Londonderry, Burton, Stafford, Wolverhampton, Brussels, Venice, Chicago?
  6. What place would you choose for the Capital of Federated Australasia? Give your reasons.

### Italian.

Three hours.

REV. T. KELSH, *Examiner*.

1. Translate—

Diverse lingue, orribili favelle,  
 Parole di dolore, accenti d'ira,  
 Voci alte e fioche, e suon di man con elle,  
 Facevano un tumulto, il qual s'aggira  
 Sempre in quell'aria senza tempo tinta.  
 Come la rena quando'l turbo spira.  
 Ed io, ch'avea d'error la testa cinta,  
 Dissi: Maestro, che è quel ch'i'odo?  
 E che gent'è, che *par* nel duol sì vinta?  
 Ed egli a me: Questo misero modo  
 Tendon l'anime triste di coloro,  
 Che visser senza infamia e senza lodo.  
 Mischiate sono a quel cattivo coro  
 Degli angeli, che non furon ribelli,  
 Nè fur fedeli a Dio, ma per sè foro.  
 Cacciarli i Ciel per non esser men belli  
 Nè lo profondo inferno gli riceve,  
 Ch'alcuna gloria i rei avrebber d'elli.

2. Parse the words in italics.
3. Show with examples how *by* is translated—(a) after verbs of motion, (b) after passive verbs, (c) after verbs signifying to know, (d) in the expression “by night.”
4. Give four irregular verbs of each of the three conjugations, exclusive of those in the next question.
5. Conjugate (1 pers. sing. pres. and pret. indic., and past participle) *algere* — *lucere* — *cuocere* — *dirigere* — *parere* — *dolersi* — *elidere* — *fendere* — *aprire* — *affliggere* — *fondere* — *assumere* — *udire* — *rompere* — *spandere* — *conoscere* — *vedere* — *apparire* — *giacere*.
6. Give examples illustrating the various uses of the particle *si*.
7. State the rules for forming adverbs from adjectives, and explain the uses of *mai*, *giammai*.
8. Translate—

Sovente dopo desinare usciva sul veroncello che guarda il giardino e Roma, e pigliava l'arpa, toccandola sì soave, e movendo un canto così dolce come non le uscì mai dalle labbra; ch'ivi l'animo era libero e risentito e spaziava rapidissimo in mille affetti. Ma corse in sulle corde l'aria del “Volontario ai campi Lombardi,” la giovinetta arpeggiava mesta, cantando le note, e in un fuggendo un pensiero che tacito e timoroso le dipingeva Aser gittarsi audacemente nel folto della battaglia, difendersi da un cerchio di Ulani, e mentre ne scavalcava un di fronte, giugnerli una picca di fianco, e trapassarlo, e cader smorto d'arcione, e non aver chi lo soccorra, e gli ristagni il sangue, e gli medichi e fasci la ferita. In questa lotta, fra l'immaginazione che la trascina, e la ragion che la infrena, Alisa, obliatasi in sulle corde, sentia la mano trascorrere in virtù dell'abito armonico che la guidava; ma il canto le cessò in gola, e stavasi guardando il ciel come lontana, lontana dall'anima sua.

9. Translate into Italian—

Often one does not follow the path of virtue, because at the beginning it is found thorny and painful, but one should reflect that as the first rays of the sun produce a dazzling and unpleasant sensation until one gets accustomed to them, so the more one advances in the path of virtue, the more pleasing and beneficial one finds it.

You play very well on the piano. Do not say any more. Oblige me with the water. We would have been here before, but we have been very busy. Good day, madam, I am glad to see you: how are you? Do you think it is time to go? It is necessary to go. They were deceived, but we accustomed ourselves to it beforehand. I have been spoken to about the matter. Where were you born? Thou hast washed thyself. I shall go and see you to-morrow morning. Come and buy them some writing-paper and pens. I wash my hands of it. He arrived suddenly, and said the soldiers were dying by hundreds. By the bye, I came to-day to wish you all a merry Christmas and a happy New Year.

10. Translate the following idioms:—*Ci metterebbe in sacco* — *Darla a gambe* — *Tener a bada* — *Saltare il grillo* — *Mi sapeva male* — *Chi duri la fatica?* — *Te n'avrò ristucco* — *Porre all'erta*.

### German.

Three hours.

JOHN A. JACKSON, Esq., B.A., Examiner.

1. Translate into German—

One of the most noted events in the reign of Nero is the burning of Rome, which lasted for six days. Some persons think that the emperor caused the city to be set on fire himself; and it is said, that he stood upon a high tower, watching the raging of the flames, and would not allow any one to assist in putting them out. The blame of the fire was however cast upon the Christians, who were, at the time, increasing in number; and Nero began to persecute them cruelly. Some were covered with the skins of wild beasts, and then thrown to dogs to be torn to pieces; some were crucified; others were wrapped in clothes smeared with pitch, and burnt alive; and at times, when it was a dark night, the city was lighted up with the flames by which the Christians were killed, whilst Nero amused himself by seeing their sufferings from his garden. About this time St. Paul and St. Peter both came to Rome. St. Paul had been at Rome before, as we learn from the last chapter of the Acts of the Apostles.

2. Translate into English—

Einige kräftige Schläge an die Thür brachten uns endlich wieder zu uns selbst. Die Thür fiel zertrümmert in den Saal, und herein drangen Gerichtsdienner mit Wache. “Hier finden wir sie ja beisammen!” rief der Anführer, und wandte sich zu seinen Begleitern. “Im Namen der Regierung!” rief er uns zu. “Ich verhafte euch.” Wir hatten nicht so viel Zeit uns zu besinnen; in wenig Augenblicken waren wir umringt. Der russische Officier, den ich jetzt wieder den Armenier nenne, zog den Anführer der Häscher auf die

Seite, und so viel mir diese Verwirrung zuließ, bemerkte ich, dass er ihm einige Worte heimlich ins Ohr sagte, und etwas Schriftliches vorzeigte. Sogleich verliess ihn der Häscher mit einer stummen und ehrerbietigen Verbeugung, wandte sich darauf zu uns und nahm seinen Hut ab. "Vergeben Sie, meine Herren," sagte er, "dass ich Sie mit diesem Betrüger vermengen konnte. Ich will nicht fragen, wer Sie sind—aber dieser Herr versichert mir, dass ich Männer von Ehre vor mir habe." Zugleich winkte er seinen Begleitern, von uns abzulassen. Den Sicilianer befahl er wohl zu bewachen und zu binden. "Der Bursche da ist überreif," setzte er hinzu. "Wir haben schon sieben Monate auf ihn gelauert."

3. Give the genders of the following words:—Weib; Gedächtniss; Finsterniss; Monat Frauenzimmer; Fräulein; Schiff; Mond; Kunde (knowledge); See (the lake); Kiefer (jaw); Schild (sign of an inn); Gedanke; gestalt Geschenk.
4. Decline the nouns Augustus; Gott; Christus; Fritz; Schulz; Herr Schmidt; Karl der grosse.
5. Give the different meanings in which the verbs lassen, wollen, and müssen are used.
6. The declension of adjectives varies according to their being preceded by (1) the definite article, (2) the indefinite article, (3) by neither of them. Explain and illustrate the foregoing rule.
7. What peculiarities occur in the declension of the following adjectives:—(1) Adjectives ending in el, en, and er. (2) Hoch. (3) Adjectives used after the words etwas, nichts, viel, wenig, and mehr?
8. Translate into German—The 124th; tenth section; on the 8th of May; eleventhly; 4/8ths; half an hour; two and a half; what is the day of the month?
9. Give examples showing how oblique narration is rendered in German.
10. When is the infinitive mood in German used with, and when without, the preposition zu?
11. Give examples showing the different meanings which the following propositions are used—über; für; um; an.
12. Translate into German—Well, I have no objection. Just now I received the intelligence. Which language do you like best? He is still alive. Be it ever so little. A youth desirous of knowledge. Have you ever been in Hobart? I have been here two months. Pray show me your paintings. Be sure to come. Are these your gloves? Who is there? It is I. London Bridge. The Cathedral of Majdeburg.

### French.

Three hours.

DR. LEEPER, *Examiner.*

#### 1. Translate—

Les paysans ne mangent pas vite, et le petit Pierre avait si grand appétit qu'il se passa bien une heure avant que Germain pût songer à se remettre en route. La petite Marie avait managé par complaisance d'abord; puis, peu à peu, le faim était venue: car à seize ans on ne peut pas faire longtemps diète, et l'air des campagnes est impérieux. Les bonnes paroles que Germain sut lui dire pour la consoler et lui faire prendre courage produisirent aussi leur effet; elle fit effort pour se persuader que sept mois seraient bientôt passés et pour songer au bonheur qu'elle aurait de se retrouver dans sa famille et dans son hameau, puisque le père Maurice et Germain s'accordaient pour lui promettre de la prendre à leur service. Mais comme elle commençait à s'égayer et à badiner avec le petit Pierre, Germain eut la malheureuse idée de lui faire regarder, par la fenêtre du cabaret, la belle vue de la vallée qu'on voit tout entière de cette hauteur, et qui est si riante, si verte et si fertile.—GEORGE SAND.

#### 2. Translate—

C'est donc là mon salaire, mon hôte !  
 Bon seigneur, va-t'en voir si ta muraille est haute,  
 Si la porte est bien close et l'archer dans sa tour,  
 De ton château pour nous fais et refais le tour,  
 Cherche en ton arsenal une armure à la taille,  
 Ressaye à soixante ans ton harnois de bataille,  
 Voici la loyauté dont nous paierons ta foi !  
 Tu fais cela pour nous, et nous ceci pour toi !  
 Saints du ciel ! J'ai vécu plus de soixante années,  
 J'ai rencontré parfois des âmes effrénées,  
 J'ai souvent, en tirant ma dague du fourreau,  
 Fait lever sur mes pas des gibiers de bourreau,  
 J'ai vu des assassins, des monnoyeurs, des traîtres,  
 De faux valets à table empoisonnant leurs maîtres,  
 J'en ai vu qui mouraient sans croix et sans pater,

J'ai vu Sforce, j'ai vu Borgia, je vois Luther ;  
 Mais je n'ai jamais vu perversité si haute  
 Qui n'eût craint le tonnerre en trahissant son hôte !

—VICTOR HUGO.

3. Give the plural of *œil*, *ciel*, *excès*, *enfant* ; and the feminine of *bref*, *frais*, *mon*, *sec*, *vieux*.
4. When is the adjective in French placed before its noun, and when after it? Give several instances of adjectives that vary in sense according to the position.
5. Parse fully—*Buvant*, *déchu*, *naquit*.
6. What is the difference between *mon* and *le mien*, *dont* and *de qui*, *l'un l'autre* and *l'un et l'autre*, *avant* and *devant*, *plus tôt* and *plutôt*, *ancien soldat* and *vieux soldat*?
7. What are the rules for the agreement of the past participle?
8. What is the meaning of *espièglerie*, *escroquerie*, *causerie*, *verve*, *enjambement*?
9. French being derived from Latin, trace the derivation of the following words :—  
*Cheval*, *droit*, *froid*, *gré*, *hôtel*, *jour*, *lierre*, *seigneur*.
10. Translate the following passage into French :—

His literary tact is beautifully fine and true. "Every poet," he writes to his sister, "has his own art of poetry written on the ground of his own soul; there is no other. Be constantly observing Nature in her smallest details, and then write as the current of your thoughts guides you; that is all." But with all this freedom from the bondage of forms and rules, Guérin marks with perfect precision the faults of the *free* French literature of his time,—the *littérature facile*,—and judges the romantic school and its prospects like a master : "that youthful literature which has put forth all its blossom prematurely, and has left itself a helpless prey to the returning frost, stimulated as it has been by the burning sun of our century, by this atmosphere charged with a perilous heat, which has over-hastened every sort of development, and will most likely reduce to a handful of grains the harvest of our age."—MATTHEW ARNOLD.

### Pure Mathematics.—I.

Three hours.

T. J. SMITH, ESQ., M.A., *Examiner*.

#### ARITHMETIC AND ALGEBRA.

- I.—1. Simplify  $\frac{1}{2}$  of  $(\frac{1}{3} + \frac{1}{4} + \frac{1}{5}) + 7(\frac{1}{35} + \frac{1}{36}) - \frac{1}{12} \div (\frac{11\frac{1}{2}}{15\frac{2}{3}} - \frac{1}{4})$ .
2. Simplify  $\frac{2.06\bar{3} + 5.71\bar{2} - 6.4}{7.01\bar{4} - 5.71\bar{5}6 + .0333788}$ .
3. Find by practice the value of 27 acres 3 roods  $26\frac{2}{3}$  poles at £107 10s. 6d. per acre.
4. A grocer buys  $3\frac{1}{2}$  cwt. of tea at £13 16s. per cwt., and 4 cwt. at £12 12s. per cwt.; he sells 7 cwt. at 2s. 9d. per lb.: at what price per lb. must he sell the rest so as to gain  $12\frac{1}{2}$  p.c. on the whole cost?
5. The difference between the incomes derived from investing a certain sum in 5 p.c. stock at 127 and  $5\frac{1}{2}$  p.c. stock at 135, is £4 14s. Find the amount invested, and the two incomes.
6. Three men can do as much work as 5 boys; the wages of 3 boys are equal to those of 2 men. A work on which 40 boys and 15 men are employed takes 8 weeks, and costs £350: how long would it take if 20 boys and 20 men were employed, and how much would it cost?

- II.—1. State and prove the rule for finding the G.C.M. of two Algebraic expressions.

Find the G.C.M. of  $4x^4 - 12x^3 + 11x^2 - 5x + 1$ ;

and  $6x^5 - 17x^4 + 18x^3 - 16x^2 + 7x - 2$ .

2. Simplify  $\frac{(y^2 - z^2)^3 + (z^2 - x^2)^3 + (x^2 - y^2)^3}{(y - z)^3 + (z - x)^3 + (x - y)^3}$ .

3. Prove that when  $m$  and  $n$  are positive integers

$$a^m \times a^n = a^{m+n};$$

and assuming this result to be true for fractional and negative exponents, interpret the meaning of  $a^m$  when  $m$  is fractional or negative.

4. Explain the method of extracting the square root of a compound expression, and extract the square root of

$$4x^4 + 12x^3 + 5x^2 - 6x + 1.$$

5. Simplify  $\sqrt{3 + \sqrt{5}} - \sqrt{3 - \sqrt{5}}$ .

6. If  $a + b + c = 0$ , prove that

$$(b^2 - c^2)(b - c)^2 + (c^2 - a^2)(c - a)^2 + (a^2 - b^2)(a - b)^2 = 0.$$

### Pure Mathematics.—II.

Three hours.

T. J. SMITH, ESQ., M.A., *Examiner.*

#### ALGEBRA AND GEOMETRY.

- I.—1. Simplify—

$$\frac{a^2}{bc(a^2 - b^2)(a^2 - c^2)} + \frac{b^2}{ca(b^2 - c^2)(b^2 - a^2)} + \frac{c^2}{ab(c^2 - a^2)(c^2 - b^2)}.$$

2. Solve the equations—

$$(i.) \quad \frac{3 + 2x}{1 - x + x^2} + \frac{3 - 2x}{1 + x + x^2} = 2.$$

$$(ii.) \quad \frac{x + \sqrt{x^2 - 1}}{x - \sqrt{x^2 - 1}} + \frac{x - \sqrt{x^2 - 1}}{x + \sqrt{x^2 - 1}} = 4a^2 - 2.$$

3. Solve the equations—

$$(i.) \quad xy = ab(a + b).$$

$$x^2 - xy + y^2 = a^3 + b^3.$$

$$(ii.) \quad yz = a(y + z) + a.$$

$$zx = a(z + x) + \beta.$$

$$xy = a(x + y) + \gamma.$$

4. If  $y$  vary as the sum of three quantities, of which the first is constant, the second varies as  $x$ , and the third as  $x^2$ ; and if  $(a, 0)$ ,  $(2a, a)$ ,  $(3a, 4a)$ , be three pairs of simultaneous values of  $x$  and  $y$ , then when  $x = na$ ,  $y = (n - 1)^2 a$ .

5. If the sum of  $m$  terms of an A.P. be to the sum of  $n$  terms as  $m^2 : n^2$ ; prove that the  $m^{\text{th}}$  term will be to the  $n^{\text{th}}$  term as  $2m - 1 : 2n - 1$ .

6. Prove that  $b + c$ ,  $c + a$ ,  $a + b$ , will be in H.P. if  $a^2$ ,  $b^2$ ,  $c^2$  be in A.P.

- II.—1. The three angles of a triangle are together equal to two right angles.

Hence the difference of the angles at the base of any triangle is double the angle contained by a line drawn from the vertex perpendicular to the base, and another bisecting the angle at the vertex.

2. Divide a straight line into two parts, so that the rectangle contained by the whole line and one part shall equal the square on the other part.

Show how this point of division may be either external or internal.

3. Investigate the relations existing between the squares described on the three sides of any triangle.

4. Draw a tangent to a circle from a given external point.

Hence in the diameter of a circle produced, to determine a point from which a tangent drawn to the circumference shall be equal to the diameter.

5. Describe a triangle, each of whose base angles is double the vertical angle.
6. Describe a circle about a regular hexagon.

### Pure Mathematics.—III.

Three hours.

T. J. SMITH, ESQ., M.A., *Examiner.*

#### GEOMETRY AND TRIGONOMETRY.

- I.—1. Triangles of equal altitudes are to one another as their bases.

2. Similar triangles are to one another in the duplicate ratio of their homologous sides.

3. In the triangle ABC, let AD bisect the angle A; then the rect. BA AC = rect. BD DC + sq. on. AD.
4. Draw a straight line perpendicular to a plane from a given point above it.
5. If a solid angle be contained by three plane angles, any two of them are greater than the third.

II.—1. Explain carefully the different systems of angular measurement, showing that the units adopted in each system are constant: and find a formula connecting the different systems.

2. Find a formula for all angles with same tangent as A: and solve completely  $\tan^2 \theta = \cot^2 a$ .

3. Solve the equations—

$$(i.) \sin(\theta + \phi) = \frac{\sqrt{3}}{2} \quad \cos(\theta - \phi) = \frac{\sqrt{3}}{2}.$$

$$(ii.) \sqrt{3} \sin \theta - \cos \theta \pm \sqrt{2} = 0.$$

4. Prove the formula giving sin A in terms of a, b, c.
5. A man standing on the bank of a river observes the angle subtended by a tree on the opposite bank to be  $60^\circ$ , and when he retires 40 feet from the river's edge, he finds the angle to be  $45^\circ$ . Find the height of the tree and the breadth of the river.
6. Show how to solve a triangle, having given two sides and the included angle.

If  $b = 18.9$   
 $c = 2.1$   
 $A = 65^\circ$  } determine the other angles, having given that

$$\log 2 = .3010300.$$

$$L \cot 32^\circ 30' = 10.1958127.$$

$$L \tan 51^\circ 28' = 10.0988763.$$

$$L \tan 51^\circ 29' = 10.0991355.$$

7. Eliminate  $\theta$  and  $\phi$  from the equations—

$$\sec \theta \sec \phi = \sec \lambda \tan \theta \tan \phi - \tan a \tan \beta.$$

$$\cos \theta = \tan \lambda \cot a.$$

$$\cos \phi = \tan \lambda \cot \beta.$$

### Natural Philosophy.

Three hours.

T. J. SMITH, Esq., M.A., Examiner.

1. What is velocity? What is acceleration?

Prove that if the earth rotated with 17 times its present velocity, bodies at the equator would have no weight. (Answer merely approximate.)

2. Find the magnitude and position of the resultant of two parallel forces acting in opposite directions. A bar 14 feet long has a weight of 3 lbs. attached to one end and 4 lbs. attached to the other: a force of 5 lbs. acting vertically upwards is applied at the middle point of the bar: neglecting the weight of the bar, what force should be applied to the system to preserve equilibrium?

3. Give Newton's laws of motion.

A stone is projected vertically upwards, and returns to the same spot after an interval of 12 seconds. Find the velocity of projection, and the height to which the body has risen.

4. If a body be just about to move down a rough inclined plane, whose inclination is  $a$ ; and if  $\mu$  = the coefficient of friction; prove that  $\mu = \tan a$ .

If a beam be inclined against a perpendicular wall, find the directions of the forces acting upon it.

5. Prove that the range of a projectile is greatest when the angle of projection is  $45^\circ$ .
6. Find the centre of gravity of a homogeneous lamina, whose shape is that of a rectangle ( $a, b$ ), with an isosceles triangle (side  $c$ ) described on side  $a$  of rectangle.
7. What are the essential parts of Attwood's machine? and explain its use as fully as you can.
8. Describe the "Chinese" or "differential" wheel and axle. The two radii of such an axle are 4 and 3 inches: the radius of the wheel is 30 inches. What is P when W is 720 lbs.?
9. Prove theoretically that the weight of a body in air is equal to the weight of that body in water together with the weight of the displaced water.
10. Describe the Bramah Press, and prove the formula connecting P and W.

## Latin.—I.

Three hours.

DR. LEEPER, *Examiner.*

Translate, paying attention to style as well as accuracy—

- I.—(a) Ergo apibus fetis idem atque examine multo  
 Primus abundare et spumantia cogere pressis  
 Mella favis; illi tiliæ atque uberrima pinus;  
 Quotque in flore novo pomis se fertilis arbos  
 Induerat, totidem auctumno matura tenebat.  
 Ille etiam seras in versum distulit ulmos,  
 Eduramque pirum et spinos jam pruna ferentes,  
 Jamque ministrantem platanum potantibus umbras.
- (b) Solus Hyperboreas glacies Tanaiumque nivalem  
 Arvaque Rhipæis nunquam viduata pruinis  
 Lustrabat, raptam Eurydicen atque irrita Ditis  
 Dona querens: spretæ Ciconum quo munere matres,  
 Inter sacra deum nocturnique orgia Bacchi,  
 Discerptum latos juvenem sparsere per agros.  
 Tum quoque marmorea caput a cervice revulsum  
 Gurgite quum medio portans Œagrius Hebrus  
 Volveret, 'Eurydicen' vox ipsa et frigida lingua,  
 Ah miseram Eurydicen! anima fugiente vocabat;  
 'Eurydicen' toto referebant flumine ripæ."

- II.—(a) Negligis immeritis nocituram  
 Postmodo te natis fraudem committere? Fors et  
 Debita jura vicesque superbæ  
 Te maneant ipsum: precibus non linquar inultis,  
 Teque piacula nulla resolvent.  
 Quamquam festinas, non est mora longa; licebit  
 Injecto ter pulvere curras.
- (b) Crescit indulgens sibi dirus hydrops,  
 Nec sitim pellit, nisi causa morbi  
 Fugerit venis et aquosus albo  
 Corpore languor.
- (c) Seu Libra seu me Scorpios adspicit  
 Formidolosus, pars violentior  
 Natalis horæ, seu tyrannus  
 Hesperiae Capricornus undæ,  
 Utrumque nostrum incredibili modo  
 Consentit astrum. Te Jovis impio  
 Tutela Saturno refulgens  
 Eripuit volucrisque Fati  
 Tardavit alas.

III.—(a) Conlegæ ejus Pauli una pridie quam ab urbe proficisceretur contio fuit, verior quam gratior populo, qua nihil inclementer in Varronem dictum nisi id modo, "mirari se, quomodo quis dux, priusquam aut suum aut hostium exercitum, locorum situm, naturam regionis nosset, jam nunc togatus in urbe sciret quæ sibi agenda armato forent; et diem quoque prædicere posset, qua cum hoste signis conlatis esset dimicaturus. Se, quæ consilia magis res dent hominibus, quam homines rebus, ea ante tempus immatura non præcepturum: optare ut quæ caute ac consulte gesta essent satis prospere evenirent: temeritatem, præterquam quod stulta sit, infelicem etiam ad id locorum fuisse."

(b) "Parentibus," inquit, "meis, dictator, quibus te modo nomine, quo fando possum, æquavi, vitam tantum debeo: tibi cum meam salutem, tum omnium horum: itaque plebei scitum, quo oneratus magis quam honoratus sum, primus antiquo abrogoque: et, quod tibi mihi, quod exercituique tuo, conservato ac conservatori, sit felix, sub imperium auspiciūque tuum redeo, et signa hæc legionesque restituo: tu, quæso, placatus me magistri equitum, hos ordinibus suis quemque teneri jubeas."

(c) Equitum levisque armaturæ statio, composita instructaque in subitos tumultus, et suo militi tuta omnia, et infesta effusis hostium populatoribus præbebat. Neque universo periculo summa rerum mittebatur, et parva momenta levium certaminum ex tuto ceptorum, finitimo receptu, aduefaciebant teritum pristinis cladibus militem, minus jam tandem aut virtutis, aut fortunæ poenitere suæ. Sed non Hannibalem magis infestum tam sanis consiliis habebat, quam magistrum equitum: qui nihil aliud, quam quod impar erat imperio, moræ ad rem publicam præcipitandam habebat: ferox rapidusque in consiliis ac lingua inmodicus, primo inter paucos, dein propalam in vulgus, pro cunctatore segnem, pro cauto timidum, adfingens vicina virtutibus vitia, compellabat; premendoque superiorem, quæ pessima ars nimis prosperis multorum successibus crevit, sese extollebat.

## IV.—Translate, explaining briefly allusions and other difficulties :—

(a) Nova pugna exorta est; non illa ordinata per principes, hastatosque, ac triarios, nec ut pro signis antesignani, post signa alia pugnaret acies—Et supplicationem lectisterniumque habendum, et ver sacrum vovendum—Datum donum duit—Patrem lanium fuisse ferunt, ipsum institorem mercis—Aeris gravis viginti millia—Ad mille et septingenti caesi—Paullus, quum ei sua sponte cunctanti pulli quoque auspicio non addixissent, obnuntiari jam efferenti porta signa collegæ jussit—Vectigales ac stipendiarios—Quum in hanc sententiam pedibus omnes issent—Magna jam summa erogata in servos ad militiam emendos.

(b) Biferique rosaria Pæsti—Dictæo cæli Regem pavere sub antro—Crura thymo plenæ—Esse apibus partem divinæ mentis et haustus Ætherios—Viva volare Sideris in numerum—Fusis mollia pensa Devolvunt—Thalami pendentia pumice tecta—Neque est te fallere quicquam.

(c) Nobilis Libros Panæti Socraticam et domum—Mihi cumque salve Rite vocanti—Profugi Scythæ—Mentemque lymphatam Mareotico—Interiore nota Falerni—Regnata petam Laconi Rura Phalantho—Quin et Prometheus et Pelopis parens Dulci laborum decipitur sono—Thracis et exitium Lycurgi.

## V.—I.

“Me, in my vowed  
Picture, the sacred wall declares to have hung  
My dank and dropping weeds  
To the stern God of Sea.”

Does it appear as if Milton misunderstood a construction in the original?

## 2. Cujus octavum trepidavit ætas Claudere lustrum.

Give other instances of Horace's use of the infinitive similar to the above.

## 3. When do relative propositions stand in the conjunctive mood?

## 4. How are questions expressed in the oratio obliqua?

## 5. Etymology of religio, femina, provincia, lacrima, littera, cælum, heres, cliens, hiems, arbiter.

## Latin.—II.

Three hours.

DR. LEEPER, *Examiner*.

## 1. Translate, having regard to style as well as accuracy—

*So.* Quam timeo, quorsum evadas. *Si.* Funus interim  
Procedit: sequimur: ad sepulchrum venimus:  
In ignem posita est: fletur. Interea hæc soror,  
Quam dixi, ad flammam accessit imprudentius,  
Satis cum periculo: ibi tum exanimatus Pamphilus  
Bene dissimulatum amorem et celatum indicat:  
Accurrit: mediam mulierem complectitur:  
Mea Glycerium, inquit, quid agis? cur te is perditum?  
Tum illa, ut consuetum facile amorem cerneret,  
Rejecit se in eum flens quam familiariter!  
*So.* Quid ais? *Si.* redeo inde iratus, atque ægre ferens;  
Nec satis ad objurgandum caussæ: diceret,  
Quid feci? quid commerui, aut peccavi, pater?  
Quæ sese voluit in ignem injicere, prohibui:  
Servavi: honesta oratio est. *So.* recte putas:  
Nam si illum objurges, vitæ qui auxilium tulit,  
Quid facias illi, qui dederit damnum aut malum?  
*Si.* Venit Chremes postridie ad me, clamitans  
Indignum facinus: comperisse Pamphilum  
Pro uxore habere hanc peregrinam. Ego illud sedulo  
Negare factum: ille instat factum: denique  
Ita tum discedo ab illo, ut qui se filiam  
Neget daturum.

## 2. Translate—

Quum jam muro turres appropinquassent, ex captivis Cæsar cognovit Vercingetorigem consumpto pabulo castra movisse propius Avaricum, atque ipsum cum equitatu expeditisque, qui inter equites proeliari consuessent, insidiarum caussa eo profectum, quo nostros postero die pabulatum venturos arbitraretur. Quibus rebus cognitis, media nocte silentio profectus ad hostium castra mane pervenit. Illi, celeriter per exploratores adventu Cæsar's cognito, carros impedimenta que sua in arctiores silvas abdiderunt, copias omnes in loco aperto atque edito instruxerunt. Qua re nunciata, Cæsar celeriter sarcinas conferri, arma expediri, jussit.

## 3.—(A) Translate into Latin, after the style of Livy :—

While Hannibal was in the neighbourhood of Tarentum, and the two consuls in Samnium, purposing however, as it seemed, to besiege Capua, the Campanian population, having been prevented by the Roman armies from sowing their crops, began to feel the famine, which is the usual misery of a long blockade. So they sent envoys to Hannibal, begging him to give orders for the conveyance of corn from the neighbouring country to Capua, before the Roman Consul led the legions into their territories, and all the roads were blockaded by the enemy's forces. Hannibal directed Hanno to march with his troops from Bruttium into Campania, and take care that the Campanians were furnished with an ample supply of corn. Leaving Bruttium with his army, and anxiously avoiding the enemy's camp and the consuls who were in Samnium, Hanno, on arriving near Beneventum, encamped on high ground three miles from the city. He then ordered corn to be brought into his camp from the allied people in the neighbourhood, where it had been stored during the summer, and assigned a guard to accompany the convoys. Next, he sent a message to Capua, stating the day on which they were to be at his camp to receive the corn, after first collecting from the whole country all kinds of carts and beasts of burden.

(B) The Tribunes put the matter to the Commons, and the Commons thus decided :  
 \*—"If Postumius does not appear before the first of May, and when summoned does not answer to his name on that day, and has no excuse to plead, we regard him as being in exile, and we will that his property be sold and he himself outlawed." The Tribunes next proceeded to indict on a capital charge various persons who had been promoters of the riot and disturbance, and to require bail.

## LATIN VERSE.

[Only one of the following passages to be attempted.]

## (A) For Elegiacs :—

And years have passed, and thou art now  
 Forgotten in thy silent tomb ;  
 And cheerful is my mother's brow,  
 My father's eye hath lost its gloom.  
 And years have passed, and death hath laid  
 Another victim by thy side :  
 With thee he roams an infant shade,  
 But not more pure than thee he died.  
 Blest are ye both ! your ashes rest  
 Beside the spot ye loved the best ;  
 And that dear home which saw your birth  
 O'erlooks you in your bed of earth.  
 But who can tell what blissful shore  
 Your angel spirits wander o'er ?  
 Or who can tell what raptures high  
 Now bless your immortality ?

## (B) For Lyrics :—

Pour out the bright nectar,  
 To lay the grim spectre  
 That lurks in the depths underlying our mirth ;  
 Forget for a minute  
 That life has aught in it  
 Save all that is fair on the face of this earth.  
 Our friends Care and Sorrow  
 May find us to-morrow,  
 To-night if they seek us we'll drown them in wine,  
 And all our troubles  
 Shall die with the bubbles  
 That float on the foaming life-stream of the Rhine.

## (C) For Hexameters :—

Hence Summer has her riches, Autumn hence,  
 And hence even Winter fills his withered hand  
 With blushing fruits and plenty not his own.  
 Fair recompense of labour well bestowed,  
 And wise precaution, which a clime so rude  
 Makes needful still, whose Spring is but the child  
 Of churlish Winter, in her froward moods  
 Discovering much the temper of her sire.

\* Resolve into *oratio obliqua*.

For oft, as if in her the stream of mild  
Maternal Nature had reversed its course,  
She brings her infants forth with many smiles,  
But once delivered, kills them with a frown.  
He therefore, timely warned, himself supplies  
Her want of care, screening and keeping warm  
The plenteous bloom, that no rough blast may sweep  
His garlands from the boughs. Again, as oft  
As the sun peeps and vernal airs breath mild,  
The fence withdrawn, he gives them every beam,  
And spreads his hopes before the blaze of day.

**Greek.—I.**

Three hours.

DR. LEEPER, *Examiner*.

**A. 5.** Translate, adding short notes where necessary :—

Ὡς δὲ προῆγεν αὐτὸν ὁ χρόνος σὺν τῷ μεγέθει εἰς ὥραν τοῦ πρόσθητον γενέσθαι, ἐν τούτῳ δὴ τοῖς μὲν λόγοις βραχυτέροις ἐχρήτο καὶ τῇ φωνῇ ἡσυχαιτέρα, αἰδοῦς δ' ἐνεπίμπλατο, ὥστε καὶ ἐρυθραίνεσθαι ὅποτε συντυγχάνοι τοῖς πρεσβυτέροις, καὶ τὸ σκυλακῶδες τὸ πᾶσιν ὁμοίως προσπίπτειν οὐκέθ' ὁμοίως προπετὲς εἶχεν. οὕτω δὲ ἡσυχαιτέρος μὲν ἦν, ἐν δὲ ταῖς συνουσίαις πάνπαν ἐπίχαρις.

Εἰ δὲ σύγε, ἔφη, ὦ παῖ, μηδὲν ἄλλο ἢ μετενέγκοις ἐπ' ἀνθρώπους τὰς μηχανὰς ἃς καὶ πάνν ἐπὶ τοῖς μικροῖς θηρίοις ἐμχανῶ, οὐκ οἶει ἂν, ἔφη, πρόσω πάνν ἐλάσαι τῆς πρὸς τοὺς πολεμίους πλεονεξίας; σὺ γὰρ ἐπὶ μὲν τὰς ὀρνιθας ἐν τῷ ἰσχυροτάτῳ χειμῶνι ἀνιστάμενος ἐπορεύου νυκτός, καὶ πρὶν κινεῖσθαι τὰς ὀρνιθας ἐπεποιήντ' οἱ αἱ πάγαι αὐταῖς καὶ τὸ κεκινημένον χωρίον ἐξείκαστο τῷ ἀκινήτῳ· ὀρνιθες δ' ἐπεπαίδευντό σοι ὥστε σοὶ μὲν τὰ συμφέροντα ὑπηρετεῖν, τὰς δὲ ὁμοφύλους ὀρνιθας ἐξαπατᾶν· αὐτὸς δὲ ἐνὶ ἡδρυνες, ὥστε ὁρᾶν μὲν αὐτάς, μὴ ὁρᾶσθαι δὲ ὑπ' αὐτῶν· ἡσκήσεις δὲ φθάνειν ἔλκων ἢ τὰ πτηνὰ φεύγειν.

**XO.** Σὺ μὲν, ὦ πατρίς Ἰλιάς,  
τῶν ἀπορθήτων πόλις οὐκέτι λέξει·  
τοῖον Ἑλλάνων νέφος ἀμφὶ σε κρύπτει  
δορὶ δὴ δορὶ πέρσαν.  
ἀπὸ δὲ στεφάναν κέκαρσαι  
πύργων, κατὰ δ' αἰθάλου  
κηλῖδ' οἰκτροτάταν κέχρωσαι·  
τάλαιν', οὐκέτι σ' ἐμβατεύσω.  
μεσονύκτιος ὠλλύμαν,  
ἦμος ἐκ δειπνων ὕπνος ἡδὺς ἐπ' ὅσσοις  
σκίδνεται, μολπᾶν δ' ἀπο καὶ χοροποιῶν  
θυσιᾶν καταπαύσας  
πόσις ἐν θαλάμοις ἔκειτο,  
ξυστὸν δ' ἐπὶ πασσάλῳ,  
ναύταν οὐκέθ' ὁρῶν δμιλον  
Τροίαν Ἰλιάδ' ἐμβεβῶτα.

**EK.** Ἀγάμεμνον, ἀνθρώποις οὐκ ἐχρῆν ποτὲ  
τῶν πραγμάτων τὴν γλῶσσαν ἰσχύειν πλέον.  
ἀλλ' εἴτε χρήστ' ἔδρασε, χρήστ' ἔδει λέγειν,  
εἴτ' αὖ πονηρὰ, τοὺς λόγους εἶναι σαθροὺς,  
καὶ μὴ δύνασθαι τᾶδ' εὖ λέγειν ποτέ.  
σοφοὶ μὲν οὖν εἰς οἱ τὰδ' ἡκριβωκότες,  
ἀλλ' οὐ δύνανται διὰ τέλους εἶναι σοφοὶ,  
κακῶς δ' ἀπώλονται· οὔτις ἐξήλυξέ πω.  
καὶ μοι τὸ μὲν σὸν ὦδε φρομίσις ἔχει·  
πρὸς τόνδε δ' εἶμι, καὶ λόγοις ἀμείφομαι,  
ὅς φης Ἀχαιῶν πόνον ἀπαλλάσσω διπλοῦν  
Ἀγαμέμνονός θ' ἔκατι παῖδ' ἐμὸν κτανεῖν.

Μή με, κύον, γούνων γουνάζεο μηδὲ τοκήων.  
 Εἰ γάρ πως αὐτόν με μένος καὶ θυμὸς ἀνείη  
 "Ὡμ' ἀποταμνόμενον κρέα ἔδμεναι, οἷά μ' ἔοργας,  
 "Ὡς οὐκ ἔσθ' ὅς σῆς γε κύνας κεφαλῆς ἀπαλάλκοι,  
 Οὐδ' εἴ κεν δεκάκις τε καὶ εἰκοσινήριτ' ἄποινα  
 Στήσωσ' ἐνθάδ' ἄγοντες, ὑπόσχωνται δὲ καὶ ἄλλα·  
 Οὐδ' εἴ κεν σ' αὐτὸν χρυσῷ ἐρύσασθαι ἀνώγη  
 Δαρδανίδης Πρίαμος· οὐδ' ὥς σέ γε πότνια μήτηρ  
 'Ενθεμένη λεχέεσσι γοήσεται, ὃν τέκεν αὐτῇ,  
 'Αλλὰ κύνες τε καὶ οἰωνοὶ κατὰ πάντα δάσονται.  
 'Ημάρ δ' ὀρφανικὸν παναφήλικά παῖδα τίθησιν·  
 Πάντα δ' ὑπεμνήμυκε, δεδάκρυνται δὲ παρειαί.  
 Δευόμενος δέ τ' ἄνεισι πάϊς ἐς πατρὸς ἐταίρους,  
 "Ἄλλον μὲν χλαίνης ἐρύων, ἄλλον δὲ χιτῶνος·  
 Τῶν δ' ἐλεσάντων κοτύλην τις τυτθὸν ἐπέσχεν,  
 Χείλεα μὲν τ' ἐδίην', ὑπερφῆν δ' οὐκ ἐδίηνεν.  
 Τὸν δὲ καὶ ἀμφιθαλῆς ἐκ δαιτύος ἐστυφέλιξεν,  
 Χερσὶν πεπληγῶς καὶ ὄνειδείοισιν ἐνίσσων·  
 "Ἐρρ' οὕτως· οὐ σός γε πατὴρ μεταδαίνυται ἡμῖν."

## B.

1. Decline γραῦς and λευκῶς.
2. Write a note on the uses of οὐ μή and μή οὐ.
3. Give a list of the feminine substantives of the O declension.
4. Illustrate by short phrases the meanings of ἐπί with the genitive, dative, and accusative.
5. Write notes upon the following forms—ἦφι, βίηφι, δαμάα, θηήσαντο, ὀρώρη, κορεσσάμεθα, βείομαι.
6. Illustrate the use of the adverb αὐτως in Homer.
7. Write out the present optative of ὁράω, and the present indicative of σύννοια.
8. Write notes on the syntax of the following:—
  - (a) ἄνυμφος, ἀνυμέναιος, ὃν μ' ἐχρῆν τυχεῖν.
  - (b) οἴμοι, τί λέξεις; οὐκ ἄρ' ὥς θανουμένους μετῆλθες ἡμᾶς, ἀλλὰ σημανῶν κακά;
  - (c) δέξαι χοάς μοι τάσδε κηλητηρίους.
  - (d) ἐκοῦσα θνήσκω· μή τις ἄψηται χροὸς.
  - (e) οἶσθ' ὄνειρόφρων φράσαι;
  - (f) ποῖ μ' ὑπεξάγεις πόδα;
  - (g) ὦμοι, τυφλοῦμαι φέγγος ὁμμάτων τάλας.
9. Who were the Chorizontes? Give any arguments in support of their views.

## Greek.—II.

Three hours.

DR. LEEFER, Examiner.

## 1.

'Ἄλλ', ὦ Σώκρατες, πειθόμενος ἡμῖν τοῖς σοῖς τροφεῦσι μήτε παῖδας περὶ πλείονος ποιοῦ μήτε τὸ ζῆν μήτε ἄλλο μηδὲν πρὸ τοῦ δικαίου, ἵνα εἰς "Αἶδου ἐλθὼν ἔχῃς ταῦτα πάντα ἀπολογήσασθαι τοῖς ἐκεῖ ἄρχουσιν· οὔτε γὰρ ἐνθάδε σοι φαίνεται ταῦτα πράττοντι ἄμεινον εἶναι οὐδὲ δικαιότερον οὐδὲ ὀσιώτερον, οὐδὲ ἄλλω τῶν σῶν οὐδενί, οὔτε ἐκείσε ἀφικομένῳ ἄμεινον ἔσται. ἀλλὰ νῦν μὲν ἡδικημένος ἄπει, ἐὰν ἀπίης, οὐχ ὑφ' ἡμῶν τῶν νόμων ἀλλ' ὑπ' ἀνθρώπων· ἐὰν δὲ ἐξέλθῃς οὕτως αἰσχροῦς ἀνταδικήσας τε καὶ ἀντικακουργήσας, τὰς σαντοῦ ὁμολογίας τε καὶ ξυνθήκας τὰς πρὸς ἡμᾶς παραβᾶς καὶ κακὰ ἐργασάμενος τούτους, οὓς ἥκιστα ἔδει, σαντόν τε καὶ φίλους καὶ πατρίδα καὶ ἡμᾶς, ἡμεῖς τέ σοι χαλεπανοῦμεν ζῶντι, καὶ ἐκεῖ οἱ ἡμέτεροι ἀδελφοὶ οἱ ἐν "Αἶδου νόμοι οὐκ εὐμενῶς σε ὑποδέξονται, εἰδότες ὅτι καὶ ἡμᾶς ἐπεχειρήσας ἀπολέσαι τὸ σὸν μέρος. ἀλλὰ μή σε πείσῃ Κρίτων ποιεῖν ἃ λέγει μάλλον ἢ ἡμεῖς.

2.

Ἥ μὴν ἔτι Ζεὺς, καί περ αὐθάδη φρονῶν,  
 ἔσται ταπεινός, οἷον ἔξαυτίζεται  
 γάμον γαμείν, ὃς αὐτὸν ἐκ τυραννίδος  
 θρόνων τ' αἴστον ἐκβαλεῖ. πατρὸς δ' ἄρα  
 Κρόνου τότ' ἤδη παντελῶς κρανθήσεται,  
 ἣν ἐκπίτνων ἡρᾶτο δηναίων θρόνων.  
 τοιῶνδε μόχθων ἐκτροπὴν οὐδεὶς θεῶν  
 δύναιτ' ἂν αὐτῷ πλήν ἐμοῦ δεῖξαι σαφῶς.  
 ἐγὼ τὰδ' οἶδα χῶ' τρόπῳ. πρὸς ταῦτά νυν  
 θαρσῶν καθήσθω τοῖς πεδαρσίοις κτύποις  
 πιστός, τινάσσων τ' ἐν χεροῖν πύρπνου βέλος.  
 οὐδὲν γὰρ αὐτῷ ταῦτ' ἐπαρκέσει τὸ μὴ οὐ  
 πεσεῖν ἀτίμως πτόματ' οὐκ ἀνασχετά·  
 τοῖον παλαιστὴν νῦν παρασκευάζεται  
 ἐπ' αὐτὸς αὐτῷ, δυσμαχώτατον τέρας·  
 ὃς δὴ κεραυνοῦ κρείσσον' εὐρήσει φλόγα,  
 βροντῆς θ' ὑπερβάλλοντα καρτερὸν κτύπον·  
 θαλασσίαν τε γῆς τινάκτειραν νόσον  
 τρίαINAN, αἰχμὴν τὴν Ποσειδῶνος, σκεδᾷ.  
 πταίσας δὲ τῷδε πρὸς κακῷ μαθήσεται  
 ὅσον τότ' ἄρχειν καὶ τὸ δουλεύειν δίχα.

## 3 For Greek Prose—

When it was about midnight, Seuthes came to them; and, after he had appointed the guides, the heavy-armed men took the lead, the peltasts followed, and the cavalry formed the rear-guard. As soon as it was day, Seuthes rode up to the front, and extolled the Greek custom, for he said that he himself, when marching in the night, though but with a small force, had often been separated, along with the cavalry, from the infantry;—"But now," he added, "We all appear in a body at break of day, as we ought to be. But halt here, and take some rest, and I, after having taken a survey of the country, will return to you." When he said this, he rode off over a hill, taking a particular road. Having come to some deep snow, he examined whether there were any footsteps of men on it, pointing either forward or the contrary way. But, as he found the way untrodden, he soon came back, and said, "All will be well, my friends, if the Gods be but favourable; for we shall fall upon the inhabitants unawares. For my own part, I will lead the way with the cavalry, in order that, if we come in sight of any person, he may not run off and give notice to the enemy. Follow me; and, if you are left behind, keep in the track of the cavalry. When we have crossed these hills, we shall come to a number of well-stored villages."

## Geology.

Three hours.

T. J. SMITH, Esq., M.A., Examiner.

1. Explain the causes of dew, land and sea breezes, monsoons.
2. Explain fully the causes of the seasons.
3. What is the origin of icebergs? and in what way have icebergs contributed to the deposition of strata?
4. What do you suppose to be the physical state of the interior of the earth, giving reasons for your answer?
5. What is the "great northern drift," and how do you account for it?
6. What light would the following peculiarities throw upon the origin of their respective strata?—
  - (i.) Nearly vertical dip.
  - (ii.) Coarse pebbly formation.
  - (iii.) Absence of fossil life.
7. What is the origin of limestones? and in what Geological periods do they occur? What connection exists between marble and limestone?
8. Give a short account of the origin of—
  - (α) Hexagonal basaltic pillars.
  - (β) Obsidian.
  - (γ) Coal.
  - (δ) Peat.

9. What facts with regard to the strata in which they respectively occur would the following fossils denote?—
- (a) Limnæa.
  - (β) Oliva.
  - (γ) Astarte Borealis.
  - (δ) Cyrena.
10. What are the earliest Geological formations in which the following occur:—(i.) Invertebrata; (ii.) Fishes; (iii.) Reptiles; (iv.) Mammals? And what reasons would you give for the exceeding scarcity of bird fossils?
11. In what formations do the following occur:—(a) Ammonites; (β) Mastodon; (γ) Diprotodon? Mention any recent animals with which they are nearly related.
12. Identify the following rocks and fossils.—(*Eight numbered specimens to be put before the students*).

### Non-metallic Chemistry.

Three hours.

T. J. SMITH, Esq., M.A., Examiner.

1. State how you would proceed to find the atomic weight of an element, taking for granted that you knew the percentage composition of several of its compounds. Illustrate your answer by an example.
2. Explain the relation which exists between the molecular weight of an element and its density when in the state of a gas.
3. State the laws of chemical combination by weight, and deduce the atomic theory from them.
4. Give two instances of relations existing between the physical and chemical properties of bodies. What is the "atomic heat" of an element?
5. Give the leading characteristics of the following groups:—
  - (i.) I. Br. Cl. Fl.                      (iii.) N. P. As.
  - (ii.) O. S. Te Se.                      (iv.) C. B. Si
6. What are the *ancient* and *modern* definitions of "acids"? What is the relation existing between ancient and modern acids and "anhydrides"?
7. Give four different methods of preparing O. Equations of reactions to be given.
8. State the physical and chemical properties of any two of the following:—Cl. S. C. P.
9. Explain clearly the difference between metals and metalloids. What is a negative compound radical?
10. Explain the actions of Ozone and SO<sub>2</sub> as bleaching substances.
11. Give the method of preparing either
  - (i.) Phosphorus from bone earth; or
  - (ii.) H<sub>2</sub>SO<sub>4</sub> for commercial purposes.
12. If air contain 23 p. cent. of its weight of O, how many lbs. of carbon must be burned in order to remove all the O from 500 lbs. weight of air? The following reaction being supposed to take place:—C<sub>2</sub> + 2O<sub>2</sub> = 2CO<sub>2</sub>.

### Zoology and Botany.

Three hours:

T. J. SMITH, Esq., M.A., Examiner.

- I.—1. Describe briefly the structure of one of the Echinodermata. Where could you place them in a classification of the animal kingdom?
2. Describe the various kinds of locomotive organs found in the Crustacea.
  3. Describe generally the skeleton of one of the Mammalia.
  4. Describe the changes that take place in the respiratory and circulatory organs of Frogs.
  5. What, in the lower classes of the Vertebrata, are the organs analogous to the limbs of Mammalia?

6. Where are the following animals found?—Lemurs: Elephants: Condors: Alligators: Wolves: Whales: Sables: Birds of Paradise. And state the industrial uses of any of these.

- II.—1. Describe all the different kinds of vascular and cellular tissue found in a one-year-old Dicotyledonous Stem, stating their relative positions.
2. Mention the chief points of resemblance and difference between plants and animals: and give reasons for classifying Amœbæ and Sponges in the Animal Kingdom.
3. Explain clearly the functions of leaves.
4. Describe all the parts of a pistil. What is an Apocarpous Ovary?
5. Contrast natural and artificial systems of classification of plants. Illustrate your answer by examples.
6. Within what limits are the following found? and describe their industrial uses (if any):—Maple: Tree-fern: Coniferæ: Palms: Eucalyptus: Cinchona.

### Drawing.

H. HUNTER, *Examiner.*

No. 1 Paper.—*Drawing from the Flat.* 9 to 10·30 o'clock. Copy the example given, in outline only.

No. 2 Paper.—*From Model.* 10·30 to 12 o'clock. Draw the tub as placed on chair before you, and shade as far as time will permit. The desired size will be indicated by the Examiner.

No. 3 Paper.—*Perspective.* 2 to 5 o'clock. Work out the accompanying problems to the scale given—

- No. 1. (a.) The horizontal line, distance points, centre of vision, picture plane, and station point being given: find the position of the following points and letter them:—

Point C. 2 ft. to the left, and 1 ft. within p.p.

Point D. 3 ft. to the right, and 2 ft. within p.p.

Point E. 2 ft. to the left, and 4 ft. within p.p.

(b.) From point D draw a vertical line of 8 ft.

(c.) From points C and E draw horizontal lines of 5 ft. each.

(d.) Draw a line lying on the ground perpendicular to p.p. 5 ft. long, 6 ft. 6 in. to right of centre, and 1 ft. within p.p.

No. 2. Three rectangular figures are given. Find the centre of vision, draw the horizontal line, mark points of distance, draw lines of direction, find the station point, and show each figure complete as if transparent.

No. 3. A geometric view of a wine-glass given, draw the figure as it would appear directly in front of the spectator, the upper rim being below the eye-level.

No. 4. Draw a cube in angular perspective, 4 ft. sides, resting on the ground, and one angle touching the picture plane 2 ft. to left of centre, the sides making angles of  $45^\circ$  to left and right with p.p., height of eye 5 ft., distance 11 ft.

No. 5. A pyramid with 4 ft. base and height of 8 ft., one side parallel to and 2 ft. within the p.p., the nearest angle 2 ft. to the right of centre, height of eye 6 ft., distance 9 ft.

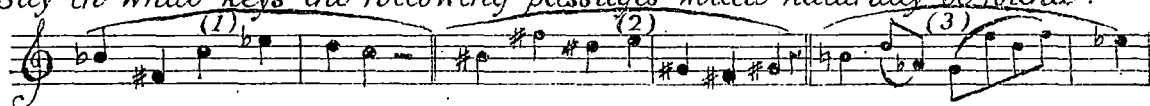
## MUSIC

## DEGREE OF ASSOCIATE OF ARTS 1885.

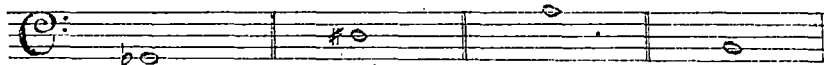
*J. Summers Mus. Bac. Examiner*Three HoursI Name the leading notes to the keys of  $E^{\#}$  minor and  $F^{\#}$ II Transpose the following passage to the key of  $G$ , employing the  $G$  clef and preserving the same relative pitch :-

III Give four bars of each of the different kinds of Rhythm in use, varying the value of notes and employing rests.

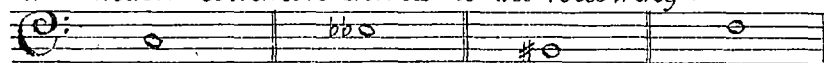
IV Say in what keys the following passages would naturally be found :-



V Write major common chords with their inversions to following Bass notes,



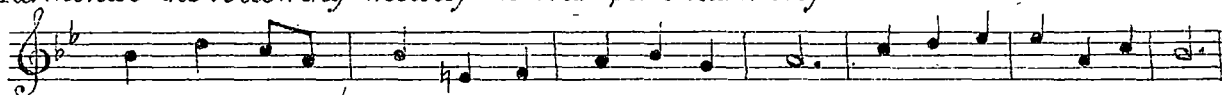
and minor common chords to the following :-

VI Write down and resolve the third inversion of the chord of the Dominant Seventh in the keys of  $B^b$ , and of  $E$  :-

VII Write down and resolve the chord of the Diminished Seventh in four different ways :-

VIII Modulate from  $C$  to  $A$ ; from  $A$  to  $D$  minor; from  $D$  minor to  $B$  major; in compressed score, four part harmony.

IX Harmonise the following melody in four part harmony :-



X Name six of our greatest composers who rank first in your esteem, and say what works they composed, and the character of their compositions.