Para el Sor. J. Mosquera

University of London.

FACULTY OF ARTS.

DISTRIBUTION

OF

THE PRIZES

AND

CERTIFICATES OF HONOUR.

SESSION 1835—1836.

WITH THE EXAMINATION PAPERS.

LONDON:

TAYLOR AND WALTON, BOOKSELLERS TO THE UNIVERSITY
OF LONDON, 30, UPPER GOWER STREET.

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FACULTY OF ARTS.

SESSION 1835-6.

The Examination for Prizes and Certificates of Honour began on the 15th and ended on the 27th of June.

On Saturday the 2d of July the Prizes and Certificates of Honour were publicly distributed by The Right Hon.

THE CHANCELLOR OF THE EXCHEQUER,

who presided, at the request of the Council: His Grace the Duke of Somerset, Mr. Strutt, M.P., Mr. Tooke, M.P., Mr. Tulk, M.P., Mr. Waymouth, Mr. Wood, and other Members of the Council, were also present.

Professor Malden, M.A., Dean of the Faculty, read, on the part of himself and his colleagues, the following

REPORT.

Sir,

It is my office to make a Report on the state of the Faculty of Arts in this University during the Session which is now ending; and in discharging this duty I shall endeavour not to detain you long from the more lively business of the day.

I must first enumerate the Classes which have been open, and the Courses of Lectures which have been delivered.

To begin with the Greek and Latin languages: for each of these languages there has been a Junior and a Senior Class, according to the regular practice of the University; and, besides these Classes, there has been for each language an extra Class, in which Lectures were delivered to more

take notice of it; but I am happy to confess that my office in this respect has been absolutely a sinecure.

Of the prospects with which we shall enter upon another Session I shall say nothing, except that we earnestly hope that before that time a plan may be put in operation by which our Students may be brought into honourable competition with the Students of other Institutions; by which their proficiency, and the success of their Instructors, may be submitted to the scrutiny of able and impartial judges; and by which they may have the opportunity of obtaining honours more public and more valuable than those which we this day bestow upon them.

There is one matter, Sir, which I may be allowed to mention; for although it is not strictly connected with the business of the day, it is most intimately connected with the main purpose of our Institution. The Rev. Dr. Bryce, Principal of the Belfast Academy, has undertaken, with the sanction of the Council, to deliver in the University a Course of Lectures on the Science of Education; and his first Lecture was delivered in this room yesterday. His object is to show how the practical art of Education may be, and ought to be, guided by fixed principles, deduced from observation of the phenomena of the human mind; and his Lectures are addressed to all who are in any way engaged in Education, from the mother watching the first mental efforts of her child, to the Professor, who is guiding young Men in the researches of Literature and Science.

The several Prizes and Certificates of Honour having been awarded *, the Chancellor of the Exchequer concluded the business of the day with an Address to the following effect :—

* Vide the Table in pages 12, 13.

My Lord Duke, Ladies, and Gentlemen,

It has been with the greatest pleasure that I have associated myself with the proceedings of the day, and presided over the distribution of prizes and honours awarded by your able Professors with their accustomed justice and impartiality. I am aware that I do not possess those claims to your attention, which belong to many who have preceded me in this Chair: but at the same time, and in order to make up for my own deficiencies, I may be permitted to revert to the illustrious men who have on former occasions marked their interest in the success of your Institution, and whose addresses to you, and whose exertions on your behalf, have contributed to the extention of those intellectual improvements which are the foundation of all real knowledge. You too will recal to your memory the names of the great men who have hitherto been your annual Presidents, and thus forget the many deficiencies of which I am myself conscious. And first in honour as in time, you will recollect that these prizes were distributed by him, to whose comprehensive and mighty mind this Institution owes its foundation. Never let it be forgotten either now or on any occasion, when Englishmen assemble for a good and useful purpose, that the most grateful feelings of our hearts should be turned towards that truly illustrious man who amidst all the pursuits of public and of professional life had the courage, firmness, and perseverance, to apply his unrivalled talents, in order to give to education a new and more extended development. But, Ladies and Gentlemen, inferior as I am in all other respects to your former Presidents, there is yet one special link which unites me peculiarly with this Institution, and which may entitle me to a larger share of your sympathy and attention than I could otherwise claim. To others this Institution owes gratitude; whilst I am grateful to this Institution: my own children have been pupils of the London University, and it is my duty to express my thanks for the benefit they have derived from its course of instruction,—a course of instruction, be it remembered, which at the same time permitted them to remain in continued association with their home affections and their home duties.

The gentlemen who have shared in the distribution of prizes this day, the names that have been read, the distant places from which many of them have come, show that this Institution does not confine itself even within the bounds of this great metropolis, but extends over the empire, and comprehends individuals of all classes. And its course of instruction is equally enlarged: we have had prizes distributed in the various branches of Science and Literature; and to those who have imagined that excellence in any one walk of literature or science is to be acquired only by narrow

and exclusive application, the distribution on the present occasion will show that the same mental energy, the same honourable ambition, and the same industry will guide the scholar to distinction in the several classes to which he applies his faculties. If this principle be generally true, this establishment at once derives honour and confers advantages in throwing open widely its gates and admitting its students to its vast circle of sound instruction—thus giving every opportunity for talent and industry to arrive at the results of a really liberal course of study, and maintaining an even balance between all the faculties of the mind.

I hope that the students, this day successful, may not fall into the mistake too frequently proceeding from scholastic distinctions. I hope that they will not be deceived into a belief that with the rewards that have been conferred upon them, their career of labour is to terminate. These prizes are, it is true, rewards—but they are also retaining fees—not merely on behalf of this Institution, but retaining fees on behalf of their country and of mankind. By their successful exertions they have shown us what we have a right to expect from them hereafter, when they shall be called into the great business of human life. I hope we may be justified in considering the acceptance of these retaining fees to be a pledge of their steady determination to arrive by unremitting perseverance at honourable distinction, and thus to entitle themselves hereafter to the gratitude of their country.

I should consider it a dereliction of my duty if I did not advert to the number of prizes this day obtained by the Students of Coward College. Their success not only proves the enlightened system of instruction established at that College but does honour to this Institution also. It proves with what a beautiful influence one establishment for education acts upon another. It proves how greatly it is for the interest of your School to allow its pupils to enter into free competition with the pupils of all other establishments.

It is gratifying to refer to the prospects held out in the early part of your Report. I trust before we meet again, or perhaps before another week or fortnight elapses, a general principle will be laid down; which, whilst it perpetuates in the metropolis of this great empire those means of knowledge which it at present possesses, will create a central University entitled to confer those outward badges and symbols of knowledge, in the nature of Academical Degrees, that have been so long confined to the more ancient Universities. Since it has been my official duty to be in communication on this subject with your Council and your learned Professors, I have been delighted to find that the principle of free competition has been recognised by them to

its fullest extent: and why should it be otherwise? For must not the character and interest of this Institution be enlarged and elevated in proportion as it allows its pupils the most unreserved competition with those of other establishments? Acting upon these just and liberal principles in conferring academic degrees hereafter, shall we not hold out a useful example to the old Universities of the country, and may not the world expect additional benefits from their adoption of the same principle? It is not within your own walls that the advantages of your instruction is confined: I had great gratification when at the University of Cambridge some short time since in seeing the pupils of this Institution claiming and receiving the highest academical distinctions. Mr. Donaldson, late of the London University, is now a Fellow of Trinity College, Cambridge, and through honours won during his whole course of study he has well earned his distinguished station. Therefore your Institution, instead of being looked upon with jealousy by others, should be regarded as contributing largely to the general progress of improvement, and advancing *pari passû* with the more ancient Universities of the country. You become useful, not only by what you yourselves accomplish, but by what you enable others to effect. Some years since, when visiting the school at Hoffwyl, in Switzerland, I remember an observation of Professor Fellenberg's, with respect to the progress made in his establishment. He complained of the unreasonable hopes and unreasonable disappointments entertained and experienced by the friends and parents of his pupils.—"If we do not succeed as fully as might be expected," he stated, "it is because pupils are not sent to us adequately prepared by previous study. If," said he, "you require us to give you eagles you must first send us eaglets." I apply that saying to this establishment. Your University is the school which will supply this deficiency; you will nurture some of those eagles that are hereafter destined to soar upwards towards the sun. This has been proved by the reputation your pupils have earned elsewhere and in other Universities. At the late distribution of Honours in the Senate-house at Cambridge, the place of Fourth Wrangler was gained by one who had been a pupil of the London University: all admitted that he deserved the degree awarded to him—I beg pardon,—not awarded to him—he was a Dissenter: the statutes of the University of Cambridge did not allow him to become a member of the Senate, of which he would have been an ornament, and this, because he was a Dissenter. But can this continue? Surely the old Universities are likely to become liberalized themselves by the honourable rivalry of an Institution founded on more comprehensive principles.

I have already taken up but too much of your attention; yet, before I conclude, I must beg to say a few words to the two classes whom I have now the honour to address—the students and their parents. To the students I must again urge that they should not consider the distinctions they have already acquired as justifying them in discontinuing or in relaxing their efforts: they must toil and persevere in the course of industry. It is said of old, in reference to agriculture, "Haud facilem esse viam voluit;" and this principle does not apply more strongly to the cultivation of the soil than to the cultivation of the mind. The young are too apt to be led away by the magical words Genius and Taste; and a popular supposition has been too frequently entertained, that in attaining eminence more is derived from natural endowments than from industry. All experience contradicts this fallacy: even in the fine arts, to which natural talents and endowments are held more peculiarly to apply, we know that those who have acquired the highest reputation have toiled night and day to reach their eminence. I cannot give you a stronger example of this truth than one derived from a most interesting Exhibition now open to the public in this city. I allude to the magnificent collection of ancient drawings brought together by Sir T. Lawrence. In that collection you may study the mind as well as the works of Raphael, the first of painters. It is proved by those beautiful sketches that he laboured as studiously in his later productions as in the acquisition of the elements of his art; and that he proceeded from the study of the very skeleton and the mere ossification of the human figure to the complete beauty and gracefulness of the finished work. By him therefore industry was considered as indispensable a requisite for perfection as genius itself. If it be so in the fine arts, how much more deeply must you reflect and persevere, how much more sedulously must you labour, if you aspire to the honours of the bar, and of other learned professions, and if you seek to comprehend a more extended sphere of honour and of utility within your pursuits.

I now proceed to address one word to parents. As the students have their peculiar duties, so have parents also; they should take care that the students, bound still to the affections of home and the charities of private life, should not be allowed to be diverted from their academic labours by domestic attractions: but, to reconcile these two objects, parents should not be contented with the dry report of the professors, but should themselves assist in the labours of their children; they should sympathize with them in their labours, their hopes, their anxieties, and their success. This is not a difficult or a painful task.

An inscription on a monument in Westminster Abbey has often struck me by its simplicity and beauty: and I think that

no British parent or child can reflect upon it without emotion. It is to be read on the monument erected to the memory of a midshipman who perished in the British service, and it concludes in words to this effect: "God grant that amongst British youths there may never be wanting those who shall be ready to perish in the service of their country; and God grant that among British parents there may never be found any who would shrink from such a sacrifice, and who in their mourning would not rejoice." The parents whom I address are not called on to make such painful sacrifices. Their task is easier and their labour less. But still it is open to us even in reference to the pursuits of this place, to apply the spirit of this noble inscription, and to say; "God grant there may never be wanting amongst British youths many disposed to intellectual labour in the pursuit of honourable distinction: and never may there be wanting among parents those who, having laid the foundation of Virtue and Piety in the minds of their children, may, by a continuance of their care and affection, entitle themselves to the gratitude of their offspring and of their country." I have now, Ladies and Gentlemen, to thank you for the kind attention with which you have honoured me. I have spoken at greater length than I had intended. As having been connected myself with this Institution, I know from experience how anxious young prize-men are to hasten home, and exhibit to their parents and friends those marks of honour which may justly be regarded as the pledges of future eminence; and I therefore feel that I have already detained both parents and pupils too long.

NAME.	ADDRESS.	Greek.		Latin.	
		Senior.	Junior.	Senior.	Junior.
LIST 1.					
PRIZE-MEN.					
Cubitt, Thomas	London	..	..	..	..
Davidson, Lionel	Ditto	..	..	2d Pr.	..
Fletcher, Joseph	Coward College	..	..	..	..
Griffith, William H.	Ditto	see L. 2	..	see L. 2	..
Harper, William	Gateforth, Yorkshire	..	..	..	..
Jennings, Nathaniel	Coward College	..	..	..	..
Kitson, Wills	Streatham, Surrey	..	..	..	..
Laing, Robert G.	Portsmouth	..	the Pr.		
Martineau, Alfred	London	see L. 2	..	see L. 2	..
Mason, Charles Peter	Finchley, Middlesex	see L. 2	..	see L. 2	..
Morell, James Daniel	Coward College	..	..	..	..
Mummery, Isaac Vale	Ditto	..	..	..	..
Pike, Warburton	Wareham, Dorset	2d Pr.	..	1st Pr.	
Rooker, Alfred	Tavistock, Devon	..	..	..	..
Smith, Philip	Coward College	1st Pr.	..	2d Pr.	..
Spalding, Samuel	London	..	..	..	..
Townley, James	Ditto	..	..	..	..
Warren, John	Ditto	..	..	..	..
Winter, William Esdaile	Ditto	..	..	..	..
LIST 2.					
CERTIFICATES OF HONOUR.					
Brown, James Baldwin	London	10th Cer.			
Davidson, Lionel	Ditto	..	..	see L. 1	..
Fletcher, Joseph	Coward College	..	..	..	..
Fletcher, William Evans	Camberwell	..	4th Cer.	..	2d Cer.
Griffith, William H.	Coward College	8th Cer.	..	7th Cer.	..
Gunn, Henry M.	Ditto	5th Cer.			
Jenkins, Thomas	London	..	..	..	..
Lankester, Edwin	Woodbridge, Suffolk	..	..	..	..
Lee, Thomas Yate	Birmingham	..	..	8th Cer.	..
Martineau, Alfred	London	5th Cer.	..	5th Cer.	..
Mason, Charles Peter	Finchley	3d Cer.	..	4th Cer.	..
Molyneaux, Edward Elcock	Winsford, Chester	..	..	..	..
Pollard, Nathaniel Weeks	Demerara	..	..	..	..
Power, Thomas	Brompton, Middlesex	..	..	..	..
Ravenshaw, Charles A.	London	..	..	..	3d Cer.
Reed, Andrew	Coward College	4th Cer.	..		
Robinson, Thomas	Ditto	9th Cer.	..		
Shaen, William	Hatfield Peveril, Essex	..	3d Cer.	..	1st Cer.
Sheepshanks, Thomas	London	7th Cer.	..	6th Cer.	
Simpson, John Woodhouse	Rearsby, Leicestershire	..	..	9th Cer.	..
Smedmore, Joseph	Coward College	..	2d Cer.		
Smith, Philip	Ditto	see L. 1	..	see L. 1	..
Thornthwaite, Thomas	Kentish Town	..	..	..	..

Hebrew.		German.	Philosophy of the Mind.	Mathematics.				Natural Philosophy.	History.	Law.
				Junior.		Second.				
or.	Junior.			Upper.	Lower.	Upper.	Lower.			
.	. .	. .	. .	2d Pr.	. .	. .	. .	2d Pr. E.		
.	. .	. .	. .	. .	. .	see L. 2				
.	see L. 2	. .	. .	. .	. .	. .	. .	1st Pr. E.		
.	. .	. .	. .	. .	. .	. .	the Pr.			
.	. .	. .	. .	. .	. .	. .	. .	. .	. .	the Pr.
.	the Pr.	. .	. .	. .	. .	. .	. .	1st Pr.		
Pr.										
.	. .	the Pr.	. .	see L. 2						
.	. .	. .	. .	1st Pr.						
.	. .	. .	1st Pr.							
Pr.	. .	. .	2d Pr.							
.	. .	. .	. .	. .	. .	. .	. .	. .	. .	the Pr.
.	. .	. .	. .	. .	. .	see L. 2				
.	. .	. .	. .	. .	. .	. .	. .	1st Pr.		
.	. .	. .	. .	. .	the Pr.					
.	. .	. .	. .	. .	. .	. .	. .	. .	1st Pr.	
.	. .	. .	. .	. .	. .	. .	. .	. .	2d Pr.	
.	. .	. .	. .	. .	. .	2d Cer.				
.	2d Cer.	. .	. .	. .	. .	. .	. .	see L. 1 E.		
.	. .	. .	. .	. .	. .	. .	see L. 1			
.	. .	. .	. .	. .	2d Cer.					
.	. .	. .	. .	. .	. .	. .	. .	3d Cer. E.		
.	. .	. .	. .	4th Cer.						
.	. .	see L. 1	. .	3d Cer.						
.	. .	. .	. .	see L. 1						
.	. .	. .	3d Cer.	. .	. .	. .	3d Cer.			
.	. .	. .	. .	. .	. .	. .	. .	4th Cer. E.		
.	. .	. .	. .	. .	. .	. .	2d Cer.			
.	. .	. .	. .	. .	. .	. .	. .	. .	. .	3d Cer.
.	. .	. .	. .	. .	. .	1st Cer.				
.	. .	. .	. .	. .	3d Cer.					

Method of awarding Prizes and Certificates of Honour.

A SERIES of Questions for the Students of each Professor is privately printed, and a copy is delivered to the Student after he comes into the Examination-Room.

The Answers are written in the Examination-Room; into which no Book (except of Logarithms) is allowed to be brought.

The paper containing the Answers is signed with a Number or Motto; and the name of the Student using it inclosed in a sealed envelope inscribed with the Number or Motto, is left previously at the Office, to be opened at the Distribution of the Prizes.

Besides the Prizes in each of the Classes, Certificates of Honour are awarded to all who have attained in their Answers a certain amount of excellence previously fixed.

The same Student may gain a Prize or Certificate in every Class.

No Student who obtained a First Prize in a former Session is allowed to contend for a Prize in the same Class in a subsequent Session. And no Student who obtained a Second Prize in a former Session is entitled to receive a similar Prize in the same Class.

EXAMINATION PAPERS.

EXAMINATION.—SESSION 1835-36.

JUNIOR GREEK CLASS.

HERODOTUS, B. IX. cc. 1—49.

1. Where had Mardonius wintered before the campaign of Platææ.

2. How had the Peleponnesians employed themselves during the winter and spring?

3. What was the furthest point in Europe to which the Persians advanced?

4. What were the Ephori?

5. Why was the command of the Lacedæmonian army given to Pausanias?

6. What was the conduct of the Argives in this war?

7. Where did Mardonius encamp? Where did the Greeks take up their position at first? How did they shift their ground?

8. What was the dispute between the Tegeates and the Athenians? On what grounds did each rest their claim?

9. How was the Lacedæmonian force at Platææ composed? Explain the difference between Σπαρτιήτης and Λακεδαιμόνιος.

10. What was the number of Athenian troops present at Platææ? Who was the Athenian commander?

11. What was the total number of men, heavy-armed and light-armed, in the Grecian army?

12. Whom did Mardonius oppose to the Lacedæmonians? Whom to the Athenians?

13. Explain the peculiarities of formation or dialect in the following words:—

ἐάνδανε, ἀναπεπτέαται, ἐπεβώσαντο, ἔστασαν, ϖλεῦνες, ἐτετάχατο, ἀπολάμψοιτο, ἐσσοῦντο, ἔσχον.

14. Translate accurately the following sentences; and, where necessary, explain the Syntax:—

c. 1. τοῖσι δὲ Θεσσαλίης ἡγεομένοισι οὔτε τὰ πρὸ τοῦ πεπρηγμένα μετέμελε οὐδὲν, πολλῷ τε μᾶλλον ἐπῆγον τὸν Πέρσην.

c. 4. ἐλπίζων δὲ σφέας ὑπήσειν τῆς ἀγνωμοσύνης.

c. 7. οὐ μὲν οὐδὲ ὑμολογήσομεν ἑκόντες εἶναι.

c. 26. τοῦ δὲ ἑτέρου (χερέος) φαμὲν ἡμέας ἱκνέεσθαι ἡγεμονεύειν.

c. 27. ἡμῖν ϖατρώϊόν ἐστι ἐοῦσι χρηστοῖσι αἰεὶ ϖρώτοισι εἶναι ἢ Αρκάσι.

c. 33. ἀσκέων δὲ ϖεντάεθλον ϖαρὰ ἓν ϖάλαισμα ἔδραμε νικᾶν ὀλυμπιάδα.

ib. μετίεσαν τῆς χρησμοσύνης.

c. 39. ἄδην εἶχον κτείνοντες. What part of speech is ἄδην? How formed? From what root?

c. 44. ϖρόσω τῆς νυκτος προελήλατο.

University of London.

SECOND EXAMINATION.—SESSION 1835–36.

JUNIOR GREEK CLASS.

HERODOTUS, B. IX. cc. 1—49.—(*SECOND PAPER.*)

Translate into English—

I. c. 7—

Ὡς δὲ ἀπίκοντο ἐς τὴν Λακεδαίμονα οἱ ἄγγελοι οἱ ἀπ' Ἀθηναίων ἅμα ἀγόμενοι ἔκ τε Μεγάρων ἀγγέλους καὶ ἐκ Πλαταιέων, ἔλεγον τάδε ἐπελθόντες ἐπὶ τοὺς ἐφόρους· "Ἔπεμψαν ἡμέας Ἀθηναῖοι, λέγοντες ὅτι ἡμῖν βασιλεὺς ὁ Μήδων, τοῦτο μὲν, τὴν χώρην ἀποδιδοῖ· τοῦτο δὲ, συμμάχους ἐθέλει ἐπ' ἴσῃ τε καὶ ὁμοίῃ ποιήσασθαι, ἄνευ τε δόλου καὶ ἀπάτης· ἐθέλει δὲ καὶ ἄλλην χώρην πρὸς τῇ ἡμετέρῃ διδόναι, τὴν ἂν αὐτοὶ ἑλώμεθα. ἡμεῖς δὲ, Δία τε Ἑλλήνιον αἰδεσθέντες, καὶ τὴν Ἑλλάδα δεινὸν ποιεύμενοι προδοῦναι, οὐ καταινέσαμεν, ἀλλὰ ἀπειπάμεθα, καί περ ἀδικεόμενοι ὑπ' Ἑλλήνων καὶ καταπροδιδόμενοι, ἐπιστάμενοί τε ὅτι κερδαλεώτερόν ἐστι ὁμολογέειν τῷ Πέρσῃ μᾶλλον ἤπερ πολεμέειν· οὐ μὲν οὐδὲ ὁμολογήσομεν ἑκόντες εἶναι. καὶ τὸ μὲν ἀπ' ἡμέων οὕτω ἀκίβδηλον ἐὸν νέμεται ἐπὶ τοῦς Ἕλληνας. ὑμεῖς δὲ, ἐς πᾶσαν ἀρρωδίην τότε ἀπικόμενοι μὴ ὁμολογήσωμεν τῷ Πέρσῃ, ἐπεί τε ἐξεμάθετε τὸ ἡμέτερον φρόνημα σαφέως, ὅτι οὐδαμὰ προδώσομεν τὴν Ἑλλάδα, καὶ διότι τεῖχος ὑμῖν διὰ τοῦ Ἰσθμοῦ ἐλαυνόμενον ἐν τέλεϊ ἐστι, καὶ δὴ λόγον οὐδένα τῶν Ἀθηναίων ποιέεσθε· συνθέμενοί τε ἡμῖν τὸν Πέρσην ἀντιώσεσθαι ἐς τὴν Βοιωτίην, προδεδώκατε, περιείδετέ τε ἐσβαλόντα ἐς τὴν Ἀττικὴν τὸν βάρβαρον. Ἐς μέν νυν τὸ παρεὸν Ἀθηναῖοι ὑμῖν μηνίουσι· οὐ γὰρ ἐποιήσατε ἐπιτηδέως· νῦν δὲ ὅτι τάχος στρατιὴν ἅμα ἡμῖν ἐκέλευσαν ὑμέας ἐκπέμπειν, ὡς ἂν τὸν βάρβαρον δεκώμεθα ἐν τῇ Ἀττικῇ. ἐπειδὴ γὰρ ἡμάρτομεν τῆς Βοιωτίης, τῆς γε ἡμετέρης ἐπιτηδεώτατόν ἐστι ἐμμαχέσασθαι τὸ Θριάσιον πεδίον."

II. c. 27—

Παλαιῶν μέν νυν ἔργων ἄλις ἔστω. ἡμῖν δὲ εἰ μηδὲν ἄλλο ἐστὶ ἀποδεδεγμένον, ὥσπερ ἐστὶ πολλά τε καὶ εὖ ἔχοντα, εἰ τέοισι καὶ ἄλλοισι Ἑλλήνων, ἀλλὰ καὶ ἀπὸ τοῦ ἐν Μαραθῶνι ἔργου ἄξιοί εἰμεν τοῦτο τὸ γέρας ἔχειν, καὶ ἄλλα πρὸς τούτῳ· οἵτινες μοῦνοι Ἑλλήνων δὴ μουνομαχήσαντες τῷ Πέρσῃ, καὶ ἔργῳ τοσούτῳ ἐπιχειρήσαντες, περιεγενόμεθα, καὶ ἐνικήσαμεν ἔθνεα ἓξ τε καὶ τεσσεράκοντα. ἆρ' οὐ δίκαιοί εἰμεν ἔχειν ταύτην τὴν τάξιν ἀπὸ τούτου μούνου τοῦ ἔργου; Ἀλλ' οὐ γὰρ ἐν τῷ τοιῷδε τάξιος εἵνεκα στασιάζειν πρέπει, ἄρτιοί εἰμεν πείθεσθαι ὑμῖν, ὦ Λακεδαιμόνιοι, ἵνα δοκέει ἐπιτηδεώτατον ἡμέας εἶναι ἑστάναι καὶ κατ' οὔστινας. πάντη γὰρ τεταγμένοι πειρησόμεθα εἶναι χρηστοί. ἐξηγέεσθε δὲ ὡς πεισομένων.

III. c. 37—

Ὁ δὲ ἐν τούτῳ τῷ κακῷ ἐχόμενος, ὥς τε τρέχων περὶ τῆς ψυχῆς πρό τε τοῦ θανάτου πεισόμενος πολλά τε καὶ λυγρὰ, ἔργον ἐργάσατο μέζον λόγου. ὡς γὰρ δὴ ἐδέδετο ἐν ξύλῳ σιδηροδέτῳ, ἐσενειχθέντος κως σιδηρίου ἐκράτησε· αὐτίκα δὲ ἐμηχανᾶτο ἀνδρειότατον ἔργον πάντων τῶν ἡμεῖς ἴδμεν. σταθμησάμενος γὰρ ὅκως ἐξελεύσεταί οἱ τὸ λοιπὸν τοῦ ποδὸς, ἀπέταμε τὸν ταρσὸν ἑωυτοῦ. ταῦτα δὲ ποιήσας, ὥς τε φυλασσόμενος ὑπὸ φυλάκων, διορύξας τὸν τοῖχον, ἀπέδρη ἐς Τεγέην, τὰς μὲν νύκτας πορευόμενος, τὰς δὲ ἡμέρας καταδύνων ἐς ὕλην καὶ αὐλιζόμενος· οὕτω ὥστε, Λακεδαιμονίων πανδημεὶ διζημένων, τρίτῃ εὐφρόνῃ γενέσθαι ἐν Τεγέῃ· τοὺς δὲ ἐν θώματι μεγάλῳ ἐνέχεσθαι τῆς τε τόλμης, ὁρέοντας τὸ ἡμίτομον τοῦ ποδὸς κείμενον, κἀκεῖνον οὐ δυναμένους εὑρεῖν.

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1. Mention the chief points in which the Ionic dialect differs from the Attic, and give examples from the preceding extracts.
2. Explain particularly the forms ἀποδιδοῖ, τέοισι, and εἶμεν.
3. Explain the formation of πεισόμενος (c. 37) from its root.

University of London.

SECOND EXAMINATION.—SESSION 1835–36.

JUNIOR GREEK CLASS.

XENOPHON'S MEMORABILIA,

PARTS OF BOOKS III. AND IV.

Translate into English :—

I.

Οὕτοι χρὴ, ὅτι ἡ πόλις οὐκ ἀσκεῖ δημοσίᾳ τὰ πρὸς τὸν πόλεμον, διὰ τοῦτο καὶ ἰδίᾳ ἀμελεῖν, ἀλλὰ μηδὲν ἧττον ἐπιμελεῖσθαι. εὖ γὰρ ἴσθι, ὅτι οὐδὲ ἐν ἄλλῳ οὐδενὶ ἀγῶνι οὐδὲ ἐν πράξει οὐδεμιᾷ μεῖον ἕξεις διὰ τὸ βέλτιον τὸ σῶμα παρεσκευάσθαι· πρὸς πάντα γὰρ, ὅσα πράττουσιν ἄνθρωποι, χρήσιμον τὸ σῶμά ἐστιν· ἐν πάσαις δὲ ταῖς τοῦ σώματος χρείαις πολὺ διαφέρει ὡς βέλτιστα τὸ σῶμα ἔχειν. Ἐπεὶ καὶ ἐν ᾧ δοκεῖς ἐλαχίστην σώματος χρείαν εἶναι, ἐν τῷ διανοεῖσθαι, τίς οὐκ οἶδεν ὅτι καὶ ἐν τούτῳ πολλοὶ μεγάλα σφάλλονται διὰ τὸ μὴ ὑγιαίνειν τὸ σῶμα; καὶ λήθη δὲ καὶ ἀθυμία καὶ δυσκολία καὶ μανία πολλάκις πολλοῖς διὰ τὴν τοῦ σώματος καχεξίαν εἰς τὴν διάνοιαν ἐμπίπτουσιν οὕτως ὥστε καὶ τὰς ἐπιστήμας ἐκβάλλειν. Τοῖς δὲ τὰ σώματα εὖ ἔχουσι πολλὴ ἀσφάλεια καὶ οὐδεὶς κίνδυνος διά γε τὴν τοῦ σώματος καχεξίαν τοιοῦτόν τι παθεῖν, εἰκὸς δὲ μᾶλλον πρὸς τὰ ἐναντία τῶν διὰ τὴν καχεξίαν γιγνομένων καὶ τὴν εὐεξίαν χρήσιμον εἶναι. καίτοι τῶν γε τοῖς εἰρημένοις ἐναντίων ἕνεκα τί οὐκ ἄν τις νοῦν ἔχων ὑπομείνειεν.—B. III. c. xii. §§ 5—7.

II.

Πάλιν δέ ποτε παρόντος τοῦ Εὐθυδήμου, ὁρῶν αὐτὸν ἀποχωροῦντα τῆς συνεδρίας, καὶ φυλαττόμενον μὴ δόξῃ τὸν Σωκράτην θαυμάζειν ἐπὶ σοφίᾳ, Ὅτι μὲν, ἔφη, ὦ ἄνδρες, Εὐθύδημος οὑτοσὶ ἐν ἡλικίᾳ γενόμενος, τῆς πόλεως λόγον περί τινος προτιθείσης, οὐκ ἀφέξεται τοῦ συμβουλεύειν, εὔδηλόν ἐστιν ἐξ ὧν ἐπιτηδεύει. δοκεῖ δέ μοι καλὸν προοίμιον τῶν δημηγοριῶν παρασκευάζεσθαι φυλαττόμενος μὴ δόξῃ μανθάνειν τι παρά του. δῆλον γὰρ, ὅτι λέγειν ἀρχόμενος ὧδε προοιμιάσεται· "Παρ' οὐδενὸς μὲν πώποτε, ὦ ἄνδρες Ἀθηναῖοι, οὐδὲν ἔμαθον, οὐδ' ἀκούων τινὰς εἶναι λέγειν τε καὶ πράττειν ἱκανοὺς ἐζήτησα τούτοις ἐντυχεῖν, οὐδ' ἐπεμελήθην τοῦ διδάσκαλόν τινά μοι γενέσθαι τῶν ἐπισταμένων· ἀλλὰ καὶ τἀναντία· διατετέλεκα γὰρ φεύγων οὐ μόνον τὸ μανθάνειν τι παρά τινος, ἀλλὰ καὶ τὸ δόξαι. ὅμως δὲ, ὅ τι ἂν ἀπὸ ταὐτομάτου ἐπίῃ μοι, συμβουλεύσω ὑμῖν." Ἁρμόσειε δ' ἂν οὕτω προοιμιάζεσθαι καὶ τοῖς βουλομένοις παρὰ τῆς πόλεως ἰατρικὸν ἔργον λαβεῖν· ἐπιτήδειον γὰρ αὐτοῖς εἴη τοῦ λόγου ἄρχεσθαι ἐντεῦθεν· "Παρ' οὐδενὸς μὲν πώποτε, ὦ ἄνδρες Ἀθηναῖοι, τὴν ἰατρικὴν τέχνην ἔμαθον, οὐδ' ἐζήτησα διδάσκαλον ἐμαυτῷ γενέσθαι τῶν ἰατρῶν οὐδένα· διατετέλεκα γὰρ φυλαττόμενος οὐ μόνον τὸ μαθεῖν τι παρὰ τῶν ἰατρῶν, ἀλλὰ καὶ τὸ δόξαι μεμαθηκέναι τὴν τέχνην ταύτην. ὅμως δέ μοι τὸ ἰατρικὸν ἔργον δότε· πειράσομαι γὰρ ἐν ὑμῖν ἀποκινδυνεύων μανθάνειν." Πάντες οὖν οἱ παρόντες ἐγέλασαν ἐπὶ τῷ προοιμίῳ.—B. IV. c. ii. §§ 3—5.

III.

Τῶν δὲ δὴ τοὺς φίλους ἐξαπατώντων ἐπὶ βλάβῃ (ἵνα μηδὲ τοῦτο παραλείπωμεν ἄσκεπτον) πότερος ἀδικώτερός ἐστιν, ὁ ἑκὼν ἢ ὁ ἄκων; ¶ Ἀλλ', ὦ Σώκρατες, οὐκ ἔτι μὲν ἔγωγε πιστεύω οἷς ἀποκρίνομαι· καὶ γὰρ τὰ πρόσθεν πάντα νῦν ἄλλως ἔχειν δοκεῖ μοι ἢ ὡς ἐγὼ τότε ᾤμην. ὅμως δὲ εἰρήσθω μοι, ἀδικώτερον εἶναι τὸν ἑκόντα ψευδόμενον τοῦ ἄκοντος. ¶ Δοκεῖ δέ σοι μάθησις καὶ ἐπιστήμη τοῦ δικαίου εἶναι, ὥσπερ τῶν γραμμάτων; ¶ Ἔμοιγε. ¶ Πότερον δὲ γραμματικώτερον κρίνεις, ὃς ἂν ἑκὼν μὴ ὀρθῶς γράφῃ καὶ ἀναγινώσκῃ, ἢ ὃς ἂν ἄκων; ¶ Ὃς ἂν ἑκών, ἔγωγε· δύναιτο

γὰρ ἂν, ὁπότε βούλοιτο, καὶ ὀρθῶς αὐτὸ ποιεῖν. ¶ Οὐκοῦν ὁ μεν ἐκὼν μὴ ὀρθῶς γράφων γραμματικὸς ἂν εἴη, ὁ δὲ ἄκων, ἀγράμματος; ¶ Πῶς γὰρ οὔ; ¶ Τὰ δίκαια δὲ πότερον ὁ ἐκὼν ψευδόμενος καὶ ἐξαπατῶν οἶδεν ἢ ὁ ἄκων; ¶ Δῆλον ὅτι ὁ ἑκών. ¶ Οὐκοῦν γραμματικώτερον μὲν τὸν ἐπιστάμενον γράμματα τοῦ μὴ ἐπισταμένου φὴς εἶναι; ¶ Ναί. ¶ Δικαιότερον δὲ τὸν ἐπιστάμενον τὰ δίκαια τοῦ μὴ ἐπισταμένου; ¶ Φαίνομαι· δοκῶ δέ μοι καὶ ταῦτα οὐκ οἶδ' ὅπως λέγειν.—B. IV. c. ii. §§ 19, 20.

Point out the fallacies in this argument. What is the general object of all the sophisms in the dialogue with Euthydemus, related in the second chapter of the Fourth Book?

University of London.

SECOND EXAMINATION.—SESSION 1835-36.

SENIOR GREEK CLASS.

ÆSCHYLUS, PROMETHEUS; SOPHOCLES, AJAX.

1. Relate briefly the myths respecting Prometheus told by Hesiod,—(1) in the Theogony,—(2) in the Works and Days. What part of these myths has Æschylus omitted? And how has he amplified the remainder?

2. What other myth was there respecting the relation of Prometheus to the human race? Mention allusions to it.

3. What is the etymological root of the name Προμηθεὺς, and the signification of the name? What allusion is there to it in this play? Show that the mythological stories bear a relation to the signification of the name.

4. What was a Tragic Trilogy? Explain the nature of the Satyric Drama.

5. In what instances is it certainly known that Æschylus carried one story through all the plays of a Trilogy? Upon what evidence does it appear that this was not his constant practice?

6. Upon what evidence does it appear that Æschylus made Prometheus giving fire to men the subject of a satyric drama?

7. Give an account of the construction of the Prometheus Loosed.

8. State the arguments for the opinion that Æschylus developed the whole story of Prometheus in a Trilogy: and for the opinion that the Prometheus Bound and Prometheus Loosed were not connected in representation. Give your own judgment.

9. Why does Æschylus introduce Prometheus in the custody of Strength and Force (Κράτος and Βία)?

10. What did the early poets and mythologers denote by the name ὠκεανός? Cite passages in support of your views?

11. What was the poetical conception which induced Æschylus to place the scene of the punishment of Prometheus in the region of Oceanus and the Oceanides?

12. Does the introduction of Io tend to the developement of the story? What further purpose had Æschylus in the prediction and narrative of Io's wanderings? Illustrate this from the difference between the account of her wanderings in the Prometheus and that in the Supplices (vv. 533—559).

13. What circumstances made the Greek mythologers represent Io's wanderings as ending in Egypt? What was the Egyptian name of the deity whom the Greeks called Epaphus? What was the Egyptian superstition respecting him?

14. Translate Prom. vv. 1028—1031:

τοιοῦδε μόχθου τέρμα μή τι προσδόκα,
πρὶν ἂν θεῶν τις διάδοχος τῶν σῶν πόνων
φανῇ, θελήσῃ τ' εἰς ἀναύγητον μολεῖν
αἴδην κνεφαῖά τ' ἀμφὶ Ταρτάρου βάθη.

How did the later Greek mythologers represent this condition as fulfilled?

15. Translate Quintus Smyrnæus, B. v., vv. 338—340:

αἱ δὲ (the Nereides) μέγα σκύζοντο Προμηθέϊ μητιόεντι
μνώμεναι ὡς κείνοιο θεοπροπίῃσι Κρονίων
δῶκε Θέτιν Πηλῆϊ καὶ οὐκ ἐθέλουσαν ἄγεσθαι.

What is the story alluded to?

16. What was the geographical position of the Chalybes? By what historical authorities are they known as a real nation?

17. What was the popular story about the Grypes and Arimaspi? Whence was it derived by the Greeks? How had it become familiarly known?

18. Translate Prom. vv. 809—814—

. . . . τηλουρὸν δὲ γῆν
ἥξεις, κελαινὸν φῦλον οἳ πρὸς ἡλίου
ναίουσι πηγαῖς, ἔνθα ποταμὸς Αἰθίοψ.
τούτου παρ' ὄχθας ἕρφ', ἕως ἂν ἐξίκῃ
καταβασμὸν, ἔνθα Βυβλίνων ὀρῶν ἄπο
ἵησι σεπτὸν Νεῖλος εὔποτον ῥέος.

What is the etymological signification of the name Αἰθίοπες? To what different races was it applied, *e. g.* by Herodotus? What false geographical theory arose from this double application of the name?

19. Translate Prom. v. 938:

οἱ προσκυνοῦντες τὴν Ἀδράστειαν σοφοι.

What is the more common name of this deity? What is the vulgar etymology of the name Ἀδράστεια? The true one? The connexion between them?

20. Translate from Athenæus, B. VII., 3, p. 277:

Ἔχαιρε δὲ Σοφοκλῆς τῷ ἐπικῷ κύκλῳ, ὡς καὶ ὅλα δράματα ποιῆσαι κατακολουθῶν τῇ ἐν τούτῳ μυθοποιΐᾳ.

What was the source from which Sophocles is here said to have drawn his stories?

21. Cite the passage from the Odyssey, or give the substance of it, in which the contest for the arms and the death of Ajax are alluded to? In what ancient poems were they related at length? What is known of the way in which the story was told in these poems? By what later writers is it told?

22. Of what tragedies anterior to this of Sophocles was the story of Ajax the subject?

23. What is the cause assigned by Sophocles for the judicial infatuation inflicted by the gods on Ajax? What defect of poetical skill is there in the way in which the mention of this is introduced?

24. Translate Schol. on Eurip. Phœnissæ:

ὅταν ὁ χορὸς μετὰ τὴν πάροδον λέγῃ τι μέλος ἀνῆκον τῇ ὑποθέσει ἀκίνητος μένων, στάσιμον καλεῖται τὸ ᾆσμα. πάροδος δέ ἐστιν ᾠδὴ χοροῦ βαδίζοντος ᾀδομένη ἅμα τῇ εἰσόδῳ.

and Aristotle, περὶ Ποιητικῆς, c. 24:

Χορικοῦ δὲ, Πάροδος μὲν, ἡ πρώτη λέξις ὅλου χοροῦ. Στάσιμον δὲ, μελὸς χοροῦ, τὸ ἄνευ ἀναπαίστου καὶ τροχαίου.

According to these definitions what are the Πάροδοι in the Prometheus and Ajax? and what is the first Στάσιμον in each play?

25. Aristotle, *ibid.*:

Κόμμος δὲ, θρῆνος κοινὸς χοροῦ καὶ ἀπὸ σκηνῆς.

Translate. What is the etymology of the term κόμμος? What example have we of κόμμος in the Ajax? What arrangement is observable in such scenes?

26. What was the purpose of the device called ἐκκύκλημα on the Greek stage? Was it employed in the Ajax?

27. What was the great impediment to a change of scene on the Greek stage? In what extant plays is the scene changed? In these instances how is the impediment removed?

28. Translate Schol. on Soph. Aj. v. 815.

Μετάκειται ἡ σκηνὴ ἐπὶ ἐρήμου τινὸς χωρίου, ἔνθα ὁ Αἴας εὐτρεπίσας τὸ ξίφος ῥῆσίν τινα πρὸ τοῦ θανάτου προφέρεται. ἔστι δὲ τὰ τοιαῦτα παρὰ τοῖς παλαιοῖς σπάνια· εἰώθασι γὰρ τὰ πεπραγμένα δι' ἀγγέλων ἀπαγγέλλειν. τί οὖν τὸ αἴτιον; φθάνει Αἴσχυλος ἐν Θρήσσαις τὴν ἀναίρεσιν Αἴαντος δι' ἀγγέλου ἀπαγγείλας. ἴσως οὖν καινοτομεῖν βουλόμενος (ὁ Σοφοκλῆς), καὶ μὴ κατακολουθεῖν τοῖς ἑτέρου τινὸς, ὑπ' ὄψιν ἔθηκε τὸ δρωμενον· ἢ μᾶλλον ἐκπλῆξαι βουλόμενος· εἰκῇ γὰρ κατηγορεῖν ἀνδρὸς παλαιοῦ οὐχ ὅσιον.

29. Describe the stage arrangements in the scene in which the body of Ajax is discovered?

30. What was the legend respecting Teucer after his return from the Trojan war? In what passage of the play is there an allusion to it.

University of London.

SECOND EXAMINATION.—SESSION 1835–36.

SENIOR GREEK CLASS.

ÆSCHYLUS, PROMETHEUS; SOPHOCLES, AJAX.

1. Explain the construction of the Trimeter Iambic verse, and scan this line :—

ἐμὰς δὲ φρένας ἠρέθισε διατόρος φόβος.

2. Explain what is meant by Cæsura in the Iambic line, and in what feet it can occur; and apply your definition to the line :—

καίτοι σε καὶ νῦν τοῦτό γε ζηλοῦν ἔχω.

3. Explain the construction of the Tragic Anapæstic verse.

4. In the following Verbs name the part of the Verb, and give the Present Tense :—

ἐφεῖτο, σκεδᾷ, σύθην, προυτεθεσπίκει, ἐκμαθήσονται, ἐκραγήσονται, ἀφῖξαι, παραινέσαι, μεθάρμοσαι, ἦσαν, ἀπαλλαγῶ, ἀλίτοιμι, ἐκτακείη, παρεξίασι, ὑμεναίουν, φῶ, πλαθείην, ἄνωγε, ὦπται.

5. So also in the following :—

δέδορκα, μεμηνότα, ἀφαιρείσθων, ἀρέσθαι, ἧστο, φανοίην, πριαίμην, σωζόντων (Aj. v. 660, ἀλλ' αὐτὸ νὺξ Ἅιδης τε σωζόντων κάτω), ἵστω, ζῃ, ἑστάτω, κρυφεὶ, τλῇς, κατέπεφνες, ωεπτῶτα, ἠράσθη, ἀποφθισειν, διωμόσω, ἔοιγμεν, ἐκτέταται.

6. Explain the etymology of the following words:—

σταθευτὸς, νηλὴς, ἄϊστοῖ, ἐπηβόλους, θρᾶξαι, ζάμενὴς, ῥῦμα, ῥυτῆρα, ἐρεμνὸν, αἰανὴς, κυδάζεται.

7. Give examples of the following terminations:—

ἀχθ-ηδὼν, χαρ-μονὴ, παρθεν-ὼν, μνῆ-στις, βά-θρον.

8. State and explain the peculiarities of the following constructions, and translate the passages:—

Prom. v. 68.—ὅπως μὴ σαυτὸν οἰκτιεῖς ποτε.

v. 291.—οὐκ ἔστιν ὅτῳ μείζονα μοῖραν νείμαιμ' ἢ σοί.

v. 750.—τί δῆτ' ἐμοὶ ζῆν κέρδος, ἀλλ' οὐκ ἐν τάχει
ἔῤῥιψ' ἐμαυτὴν τῆσδ' ἀπὸ στυφλοῦ πέτρας,
ὅπως πέδῳ σκήψασα τῶν πάντων πόνων
ἀπηλλάγην;

v. 787.— . . . . οὐκ ἐναντιώσομαι
τὸ μὴ οὐ γεγωνεῖν πᾶν ὅσον προσχρήζετε.

Aj. v. 83.—ἀλλ' οὐδὲ νῦν σε μὴ παρόντ' ἴδῃ πέλας.

v. 965.—οἱ γὰρ κακοὶ γνώμαισι τἀγαθὸν χεροῖν
ἔχοντες οὐκ ἴσασι, πρίν τις ἐκβάλῃ.

University of London.

SECOND EXAMINATION.—SESSION 1835-36.

SENIOR GREEK CLASS.

ÆSCHYLUS, PROMETHEUS; SOPHOCLES, AJAX.

Translate into English—

I. Prom. vv. 128—151.

ΧΟΡΟΣ.

μηδὲν φοβηθῇς· φιλία γὰρ ἥδε τάξις πτερύγων
θοαῖς ἁμίλλαις προσέβα τόνδε πάγον, πατρῴας
μόγις παρειποῦσα φρένας·
κραιπνοφόροι δέ μ' ἔπεμψαν αὖραι.
κτύπου γὰρ ἀχὼ χάλυβος
διῆξεν ἄντρων μυχὸν, ἐκ δ' ἔπληξέ μου τὰν θεμερῶπιν αἰδῶ·
σύθην δ' ἀπέδιλος ὄχῳ πτερωτῷ.

ΠΡΟΜΗΘΕΥΣ.

αἰαῖ, αἰαῖ,
τῆς πολυτέκνου Τηθύος ἔκγονα,
τοῦ περὶ πᾶσάν θ' εἱλισσομένου
χθόν' ἀκοιμήτῳ ῥεύματι παῖδες
πατρὸς Ὠκεανοῦ· δέρχθητ', ἐσίδεσθ',
οἵῳ δεσμῷ πρόσπορπατὸς
τῆσδε φάραγγος σκοπέλοις ἐν ἄκροις
φρουρὰν ἄζηλον ὀχήσω.

ΧΟΡΟΣ.

λεύσσω, Προμηθεῦ· φοβερὰ δ' ἐμοῖσιν ὄσσοις ὁμίχλα
προσῆξε πλήρης δακρύων, σὸν δέμας εἰσιδούσα
πέτραις προσαυαινόμενον
ταῖσδ' ἀδαμαντοδέτοισι λύμαις·
νέοι γὰρ οἰακονόμοι
κρατοῦσ' Ὀλύμπου· νεοχμοῖς δὲ δὴ νόμοις· / εὺς ἀθέτως κρατύνει,
τὰ πρὶν δὲ πελώρια νῦν ἄϊστοῖ.

II. Prom. vv. 908—927.—

ΠΡΟΜΕΘΕΥΣ.

ἦ μὴν ἔτι Ζεὺς, καίπερ αὐθάδη φρονῶν,
ἔσται ταπεινὸς, οἷον ἐξαρτύεται
γάμον γαμεῖν· ὃς αὐτὸν ἐκ τυραννίδος
θρόνων τ' ἄϊστον ἐκβαλεῖ· πατρὸς δ' ἀρὰ
Κρόνου τότ' ἤδη παντελῶς κρανθήσεται,
ἣν ἐκπιτνῶν ἠρᾶτο δηναιῶν θρόνων.
τοιῶνδε μόχθων ἐκτροπὴν οὐδεὶς θεῶν
δύναιτ' ἂν αὐτῷ πλὴν ἐμοῦ δεῖξαι σαφῶς.
ἐγὼ τάδ' οἶδα χῷ τρόπῳ. πρὸς ταῦτα νῦν
θαρσῶν καθήσθω τοῖς πεδαρσίοις κτύποις
πιστὸς, τινάσσων τ' ἐν χεροῖν πῦρπνουν βέλος.
οὐδὲν γὰρ αὐτῷ ταῦτ' ἐπαρκέσει τὸ μὴ οὐ
πεσεῖν ἀτίμως πτώματ' οὐκ ἀνασχετά·
τοῖον παλαιστὴν νῦν παρασκευάζεται
ἐπ' αὐτὸς αὑτῷ, δυσμαχώτατον τέρας·
ὃς δὴ κεραυνοῦ κρείσσον' εὑρήσει φλόγα,
βροντῆς θ' ὑπερβάλλοντα καρτερὸν κτύπον.
θαλασσίαν τε γῆς τινάκτειραν νόσον
τρίαιναν, αἰχμὴν τὴν Ποσειδῶνος, σκεδᾷ.
πταίσας δὲ τῷδε πρὸς κακῷ μαθήσεται
ὅσον τὸ τ' ἄρχειν καὶ τὸ δουλεύειν δίχα.

III. Aj. vv. 306—327.

ἔμφρων μόλις πως ξὺν χρόνῳ καθίσταται,
καὶ πλῆρες ἄτης ὡς διοπτεύει στέγος,
παίσας κάρα θώϋξεν· ἐν δ' ἐρειπίοις
νεκρῶν ἐρειφθεὶς ἕζετ' ἀρνείου φόνου,
κόμην ἀπρὶξ ὄνυξι συλλαβὼν χερί.
καὶ τὸν μὲν ἧστο πλεῖστον ἄφθογγος χρόνον·
ἔπειτ' ἐμοὶ τὰ δεινὰ ἐπηπείλησ' ἔπη,
εἰ μὴ φανοίην πᾶν τὸ συντυχὸν πάθος,
κἀνήρετ' ἐν τῷ πράγματος κυρεῖ ποτέ.
κἀγὼ, φίλοι, δείσασα τοὐξειργασμένον
ἔλεξα πᾶν ὅσονπερ ἐξηπιστάμην.
ὁ δ' εὐθὺς ἐξώμωξεν οἰμωγὰς λυγρὰς,
ἃς οὔποτ' αὐτοῦ πρόσθεν εἰσήκουσ' ἐγώ,
πρὸς γὰρ κακοῦ τε καὶ βαρυψύχου γόους
τοιοῦσδ' ἀεί ποτ' ἀνδρὸς ἐξηγεῖτ' ἔχειν·
ἀλλ' ἀψόφητος ὀξέων κωκυμάτων
ὑπεστέναζε ταῦρος ὡς βρυχώμενος.

νῦν δ' ἐν τοιᾷδε κείμενος κακῇ τύχῃ
ἄσιτος ἀνὴρ, ἄποτος, ἐν μέσοις βοτοῖς
σιδηροκμῆσιν ἥσυχος θακεῖ πεσών·
καὶ δῆλός ἐστιν ὥς τι δρασείων κακόν.
τοιαῦτα γάρ πως καὶ λέγει κὠδύρεται.

IV. Aj., vv. 545—561.—

ΑΙΑΣ.

αἶρ' αὐτὸν, αἶρε δεῦρο. ταρβήσει γὰρ οὐ
νεοσφαγῆ που τόνδε προσλεύσσων φόνον,
εἴπερ δικαίως ἔστ' ἐμὸς τὰ πατρόθεν.
ἀλλ' αὐτίκ' ὠμοῖς αὐτὸν ἐν νόμοις πατρὸς
δεῖ πωλοδαμνεῖν κἀξομοιοῦσθαι φύσιν.
ὦ παῖ, γένοιο πατρὸς εὐτυχέστερος,
τἀ δ' ἄλλ' ὅμοιος· καὶ γένοι' ἂν οὐ κακός.
καίτοι σε καὶ νῦν τοῦτό γε ζηλοῦν ἔχω,
ὀθούνεκ' οὐδὲν τῶνδ' ἐπαισθάνει κακῶν.
ἐν τῷ φρονεῖν γὰρ μηδὲν ἥδιστος βίος,
ἕως τὸ χαίρειν καὶ τὸ λυπεῖσθαι μάθῃς.
ὅταν δ' ἵκῃ ὠρὸς τοῦτο, δεῖ σ' ὅπως πατρὸς
δείξεις ἐν ἐχθροῖς οἷος ἐξ οἵου 'τραφης.
τέως δὲ κούφοις ὠνεύμασιν βόσκου, νέαν
ψυχὴν ἀτάλλων, μητρὶ τῇδε χαρμονήν.
οὔτοι σ' Ἀχαιῶν, οἶδα, μή τις ὑβρίσῃ
στυγναῖσι λώβαις, οὐδὲ χωρὶς ὄντ' ἐμοῦ.

V. Aj. vv. 1192—1222.—

ὄφελε πρότερον αἰθέρα δῦναι μέγαν ἢ τὸν πολύκοινον Ἅϊδαν
κεῖνος ἀνὴρ, ὃς στυγερῶν ἔδειξ' ὅπλων
Ἕλλασι κοινὸν Ἄρη.
ἰὼ πόνοι πρόπονοι.
κεῖνος γὰρ ἔπερσεν ἀνθρώπους.
ἐκεῖνος οὐ στεφάνων
οὔτε βαθειᾶν κυλίκων
νεῖμεν ἐμοὶ τέρψιν ὁμιλεῖν,
οὔτε γλυκὺν αὐλῶν ὄτοβον
δύσμορος, οὔτ' ἐννυχίαν
τέρψιν ἰαύειν.
ἐρώτων δ' ἐρώτων ἀπέπαυσεν, ὤμοι
κεῖμαι δ' ἀμέριμνος οὕτως,
ἀεὶ πυκιναῖς δρόσοις
τεγγόμενος κόμας,
λυγρᾶς μνήματα Τροίας

καὶ πρὶν μὲν ἐννυχίου
δείματος ἦν μοι προβολὰ
καὶ βελέων θούριος Αἴας,
νῦν δ' οὗτος ἀνεῖται στυγερῷ
δαίμονι. τίς μοι, τίς ἔτ' οὖν
τέρψις ἐπέσται;
γενοίμαν ἵν' ὑλᾶεν ἔπεστι πόντου
πρόβλημ' ἁλίκλυστον, ἄκραν
ὑπὸ πλάκα Σουνίου,
τὰς ἱερὰς ὅπως
προσείποιμεν Ἀθάνας

HENRY MALDEN,
Professor.

University of London.

MIDSUMMER EXAMINATION—SESSION 1835–36.

JUNIOR LATIN CLASS.

CICERO PRO MURAENA.—(*FIRST PAPER.*)

1. What was the accusation against Muraena? Who appeared in support of the accusation—who defended him? In what year B.C. did it take place? What was the result of it?

2. Enumerate in order the offices through which a Roman passed to the consulship. Which of them gave admission to the Senate? What interval did the law require at this period between the holding two of these offices?

3. Enumerate in order the generals who were sent against Mithridates, and state briefly how far they were successful. What was the state of the Roman arms in the East at the period of this trial?

4. Where was Catiline, where Pompey, where Cæsar, at the period of this trial?

5. Of what nature are the arguments which Cicero uses against Cato and Sulpicius in this speech? Are any of the writings of Sulpicius extant?

6. Define the terms *gens*, *familia*, *nomen*, *praenomen*, *cognomen*. What was the *gens* of Cicero, Cæsar, Muraena, Cato, Pompey? Give as long a list as you can of Roman *praenomina*, and add the abbreviations. Addison gives the name of Marcia to Cato's daughter: is this correct?

7. C. 11. "Si quid apud majores nostros fuit in isto studio admirationis, id enuntiatis vestris mysteriis totum est contemptum." What is the allusion?

8. Show that the Roman law had its fictions as well as our own.

9. What did the Romans think of the amusement of dancing?

10. Exclaim the phrases and allusions: omen praerogativum—candidatus—aquae pluviae arcendae—regundis finibus—tutor—Otho equestri ordini restituit voluptatem—quaestio peculatus—ambitus—patricius—renuntiare consulem.

11. Give four examples of words with each of the following suffixes, stating whether the suffix is attached to a verb, a substantive, or an adjective, and what alteration it makes in the meaning: *mĕn*, *tu*, *tāt*, *tūdŏn*, *ōn*, *tiōn*, *ōr*, *tōr*, *mento*, *bŭlo* or *bre*, *li* or *ri* (adj.), *pĕr* (adv.).

12. Give three other examples of the suffixes which appear in *fuga*, *scriba*, *fama*, *poeta*, *muliercula*, *diligentia*, *opus*, *periculum*, *adjumentum*, *propter*, *imperium*, *contra*, *sectari*.

13. Give three other words formed like *opifex* and *expers* without a suffix.

4. Translate the following into English:—

Mihi autem cum Muraena judices, et vetus et magna amicitia est, quae in capitis dimicatione a Ser. Sulpicio non idcirco obruetur, quod ab eodem in honoris contentione superata est. Quae si causa non esset, tamen vel dignitas hominis vel honoris ejus quem adeptus est amplitudo, summam mihi superbiae crudelitatisque famam inussisset, si hominis et suis et populi Romani ornamentis amplissimi, causam tanti periculi repudiassem. Neque enim jam mihi licet neque est integrum ut meum laborem hominum periculis sublevandis non impertiam. Nam cum praemia mihi tanta pro hac industria sint data quanta antea nemini, labores per quos ea ceperis cum adeptus sis deponere, esset hominis et astuti et ingrati. Quod si licet desinere, si te auctore possum, si nulla inertiae nota, nulla superbiae turpitudo, nulla inhumanitatis culpa suscipitur; ego vero libenter desino. Sin autem fuga laboris de-

sidiam, repudiatio supplicum superbiam, amicorum neglectio improbitatem coarguit; nimirum haec causa est ejusmodi, quam nec industrius quisquam nec misericors nec officiosus deserere possit. Atque hujusce rei conjecturam de tuo ipsius studio Servi, facillime ceperis. Nam si tibi necesse putas etiam adversariis amicorum tuorum de jure consulentibus respondere, et si turpe existimas te advocato illum ipsum quem contra veneris causa cadere; noli tam esse injustus ut, cum tui fontes vel inimicis tuis pateant, nostros rivulos etiam amicis putes clausos esse oportere. Etenim si me tua familiaritas ab hac causa removisset, et si hoc idem Q. Hortensio M. Crasso clarissimis viris, si item ceteris a quibus intellego tuam gratiam magni aestimari accidisset; in ea civitate consul designatus defensorem non haberet, in qua nemini unquam infimo majores nostri patronum desse voluerunt. Ego vero judices ipse me existimarem—nefarium si amico—crudelem si misero—superbum si consuli defuissem. Quare quod dandum est amicitiae, large dabitur a me, ut tecum agam Servi, non secus ac si meus esset frater, qui mihi est carissimus, isto in loco; quod tribuendum est officio, fidei, religioni, id ita moderabor, ut meminerim me contra amici studium pro amici periculo dicere.

(C. 30.) Nostri autem illi, fatebor enim Cato me quoque in adolescentia diffisum ingenio meo quaesisse adjumenta doctrinae, nostri inquam illi a Platone et Aristotele moderati homines et temperati aiunt—apud sapientem valere aliquando gratiam—viri boni esse misereri—distincta genera esse delictorum et disparis poenas—esse apud hominem constantem ignoscendi locum—ipsum sepientem saepe aliquid opinari quod nesciat—irasci nonnunquam—exorari eundem et placari—quod dixerit, interdum si ita rectius sit, mutare—de sententia decedere aliquando—omnis virtutes mediocritate quadam esse moderatas. Hos ad magistros si qua te fortuna Cato cum ista natura detulisset, non tu quidem vir melior esse nec fortior nec temperantior nec justior, neque enim esse potes, sed paulo ad lenitatem propensior. . . . Ac te ipsum quantum ego opinione auguror, nunc et animi quodam impetu concitatum et vi naturae atque ingeni elatum et recen-

tibus praeceptorum studiis flagrantem, jam usus flectet, dies leniet, aetas mitigabit. Etenim isti ipsi mihi videntur vestri praeceptures et virtutis magistri, finis officiorum paulo longius quam natura vellet protulisse, ut cum ad ultimum animo contendissemus, ibi tamen ubi oportet consisteremus. *Nihil ignoveris.* Immo aliquid, non omnia. *Nihil gratiae causa feceris.* Immo resistito gratiae, cum officium et fides postulabit. *Misericordia commotus me sis.* Etiam in dissolvenda severitate ; sed tamen est laus aliqua humanitatis. *In sententia permaneto.* Vero nisi sententiam sententia alia vicerit melior.

University of London.

EXAMINATION—JUNE 1836.

JUNIOR LATIN CLASS.

TERENTI ADELPHOE.—(*SECOND PAPER.*)

In what year was this play first exhibited, and on what occasion? from what Greek writer did Terence translate it?

Titulus. *Modos fecit Flaccus.* Translate this.

Tibiis Sarranis. What place does *Sarranis* refer to?

Prol. 15. *Homines nobilis eum adjutare.* To whom does this allude?

25. *Augeāt industriam;* defend the quantity.

I. 1. 12. *Potat;* how distinguished from *bibit?*

45. *Rescitum;* the difference between *scire* and *resciscere?*

54. *Nescio quid tristem video.* If we change *video* into *videam*, how is the meaning altered?

I. 2. 7. *Modo quid designavit;* the force of this?

29. *Ubi te ejecisset foras;* the same?

35. *Is meus est factus;* how does the position of *est* affect the meaning?

43. *Cedo quemvis arbitrum;* what is *cedo*? what is its plural?

53. *Quid istic;* the meaning?

II. 1. 9. *Hujus non faciam;* the meaning?

11. *Nollem factum.* Distinguish between this and *nolim factum.*

13. *Forem* (*subst.*); how distinguished from *fores?*

22. *Ornatus esses ex tuis virtutibus;* translate.
40. *Liberali illam adsero causa manu;* what is the force of *manu* in this phrase?
54. *Has rationes puto;* the precise meaning of these words?

II. 2. 2. *Faxo;* what part of the verb?
14. *Quasi usquam tibi sint viginti minae;* shew that the meaning of this passage is consistent with the meaning of *usquam.*
35. *Etiam de sorte venio in dubium;* translate.
40. *Ut ut haec sunt acta;* translate and account for the power of *ut ut.*

II. 3. 1. *Quivis;* how distinguished from *quisquam?*
7. *Ellum;* how distinguished from *eccum?*
4. 4. *Ego illam hercle vero omitto;* the force of *vero?*
9. *Si ommes cuperent tibi nil possent auxiliarier;* to which verb does *tibi* belong?
19. *Ad patrem hoc permanet;* the precise meaning of *permanet?*
23. *Hilare;* with what adjective is this adverb connected?

III. 1. 3 *Times quasi numquam tute pepereris;* defend the tense of *pepereris.*
8. *E re natae;* translate.
2. 19. *Cerebro dispergat viam;* distinguish this from *cerebrum dispergere.*
21. *Ceteros ruerem;* the meaning of *ruo?*
27. *Loquere ergo;* the force of *ergo?*
51. *Mihi sum conscia;* is *mihi* superfluous?
3. 8. *Si senserit, numquam dicet;* why the difference of tense?
17. *Id distributum est ex sententia;* the meaning?
35. *Credo ut est dementia; translate.*
40. *Tu quantus quantus nil nisi sapientia es;* correct this.

41. *Sineres illum tu tuom facere haec ?* translate.
78. *Numquid vis ?* the force ?

4. 8. *Nisi facient quae illos aequom'st, haut sic auferent ;* translate.
20. *Aequalem ;* the meaning and the origin of the word ?
36. *Hunc abduce, vinci, quaere rem ;* explain this.
40. *Differor doloribus ;* translate this.
62. *Utinam hic sit modo defunctum ;* translate.

5. 4. *Officium ;* the precise meaning of this word ? Should the possessive pronoun or genitive which accompanies this word be placed in an emphatic position ?

V. 1. 10. *Dictum inter nos hoc fuit, ex te adeo est ortum ;* the force of *adeo ?*
23. *Tu illos duo olim pro re tollebas tua ;* translate.
53. *Exporge frontem ;* account for the meaning of *exporge* from its origin.

V. 2. 1. *Bene subducta ratione ;* the meaning ?
17. *Patria potitur commoda ;* the quantity of *potitur ?*
26. *Non posteriores feram ;* translate.
27. *Id mea minume refert ;* the quantity of each syllable ? account for the phrase.

3. 7. *Siquid usus venerit ;* the meaning ?
8. *Meditor esse adfabilis ;* translate.

5. 14. *Insanis ? aufer ;* the force of *aufer ?*

7. 8. *Adparare de die convivium ;* translate.
12. *Vin tu hoc fieri ? Cupio ;* the difference between *volo* and *cupio ?*
38. *Tibi pater permittimus ;* the force of the verb ?

Translate the following into English. (Act. IV. Sc. 2.)

D. Ne ego homo infelix. Primum fratrem nusquam invenio gentium.
Praeterea autem dum illum quaero a villa mercenarium.
Vidi. Is filium negat esse ruri nec quid agam scio.

C. Syre. *S.* quid est. *C.* Men quaerit? *S.* Verum. *C.* Perii.
S. Quin tu bono animo es.

D. Quid hoc, malum, infelicitatis? nequeo satis decernere;
Nisi me credo huic esse natum re, ferundis miseriis.
Primus sentio mala nostra; primus rescisco omnia;
Primus porro obnuntio; aegre solus si quid fit fero.

S. Rideo hunc: se primum ait scire: is solus nescit omnia.

D. Nunc redeo: si forte frater redierit viso. *C.* Syre,
Obsecro vide ne ille huc prorsus se inruat. *S.* Etiam taces?
Ego cavebo. *C.* Numquam hercle hodie ego istuc committam tibi:
Nam me in cellulam aliquam cum illa concludam: id tutissumum'st.

S. Age, tamen ego hunc amovebo. *D.* Set eccum sceleratum Syrum.

S. Non hercle hic quidem perdurare quisquam si sic fit potest.
Scire equidem volo, quot mihi sint domini: quae haec est miseria?

D. Quid ille gannit? quid volt? quid ais bone vir? est frater domi?

S. Quid, malum, *bone vir* mihi narras? equidem perii. *D.* Quid tibi'st?

S. Rogitas? Ctesipho me pugnis miserum et istam psaltriam
Usque occidit. *D.* Em, quid narras? *S.* Em vide, ut discidit labrum.

D. Quamobrem? *S.* Me impulsore hanc emptam esse ait.
D. Non tu eum rus hinc modo
Produxe aibas? *S.* Factum: verum venit post insaniens:
Nil pepercit. Non puduisse verberare hominemsenem?
Quem ego puerum modo tantillum in manibus gestavi meis?

D. Laudo o Ctesipho: patrissas: abi virum te judico.

S. Laudas? ne ille continebit posthac, si sapiet manus.

D. Fortiter. *S.* Perquam, quia miseram mulierem et me servolum,
Qui referire non audebam, vicit: hui perfortiter.

University of London.

MIDSUMMER EXAMINATION—1836.

JUNIOR LATIN CLASS.—(*Third Paper.*)

Translate the following sentences into Latin, and mark the quantity of every syllable in your translation.

1. He told me that you were in Italy, and that he was sending the slaves to you.

2. I had nothing to write to you.

3. To think that *Aeschinus* should have deserted us!

4. How does it concern you?

5. It is incredible what perfidy there is in those great men, as they wish to be thought.

6. If *you* had advised it, I should have attempted it.

7. It will not be *my* fault, if I fail.

8. What if I took it into my head to fly into the harbour of retirement?

9. He did wisely to inquire into those matters.

10. Attend to me. I am attending to you.

11. The question is whether he did this on purpose, or by mistake.

12. If you receive a letter from him, send it to me as soon as possible.

13. He was too sharpsighted to be deceived by Davus.

14. You know what a drunken old woman Lesbia is.

15. Bundle him out of the house, if he refuse to go peaceably.

16. Of all the cavalry there was not a man who turned his back.

17. 'Where is my father?' 'Where is he? Where should you think? at his brother's?'

18. Be this as it may, he is more silly than cruel.

19. Yes, I saw what you suffered on his account.

20. I am afraid my daughter cannot be persuaded to obey her mother in this matter.

21. If you were in the neighbourhood, there would be reason to hope that the affair might be quickly settled.

22. I purpose to set out straight for the army, to devote the remaining summer months to military matters, the winter to my judicial duties.

23. If you are at Rome, Dolabella may be pacified.

24. In my eagerness to oblige you, I was on the point of losing all my property.

T. HEWITT KEY,
Professor.

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MIDSUMMER EXAMINATION.—SESSION 1835–36.

SENIOR LATIN CLASS.

LIVY, XXIVTH BOOK.—(*FIRST PAPER.*)

1. Give the date of Livy's birth. Determine by internal evidence the date of the composition of his history. Point out his chief defects and chief merits as a writer and historian, referring to his writings in support of your opinion.

2. Give a precise definition of the terms Patrician and Plebeian; and mention the leading facts connected with the growth and decay of the Patrician body.

3. The Comitia centuriata—What was the object of this institution, and what were its elements?

4. Which of the two elements in the Roman constitution, the democratical or aristocratical, predominated at the commencement of the second Punic war? Refer to your proofs.

5. Define the duties of the office of Censor.

6. Define the terms: juniores—curulis—auspicium—vidua—colonia—municipium—praefectura—ad pileum vocare.

7. Give briefly the history of the Roman connexion with Sicily, from the first entrance into the island to the time when it became wholly subject to Rome.

8. Describe the chief geographical features of the island of Sicily. How many square miles does it contain? What is the shortest distance from it to Africa, Italy, and Sardinia, respectively?

9. Define the position of the following :—Locri, Agrigentum, Arpi, Croto, Leontini, Pachynum, Oricum, Gades, Ariminum, Regium, Puteoli, Casilinum, Henna, Lilyboeum, Tarentum; and the rivers Vulturnus, Anapus, Iberus, and Himera. Give a full description of ancient Syracuse, comparing it with the modern town.

10. Translate the following into English :—

Inhac turbatione rerum incontionem uocari placuit. ubi quum alii alio tenderent nec procul seditione res esset, apollonides principum unus orationem salutarem ut intali tempore habuit. nec spem alutis nec perniciem propiorem umquam ciuitati ulli fuisse. si enim uno animo omnes uel adromanos uel adkarthaginiensis inclinent, nullius ciuitatis statum fortunatiorem ac beatiorem fore. si alii alio trahant res, non inter poenos romanosque bellum atrocius fore quam inter ipsos syracusanos, quum intra eosdem muros pars utraque suos exercitus sua arma suos habitura sit duces. itaque ut omnes idem sentiant summa ui agendum esse; utra societas sit utilior, eam longe minorem ac leuioris momenti consultationem esse. set tamen hieronis potius quam hieronymi auctoritatem sequendam insociis legendis, et quinquaginta annis feliciter expertam amicitiam nunc incognitae quomdam infideli praeferendam. esse etiam momenti aliquid adconsilium quod karthaginiensibus ita pax negari possit ut non utique inpraesentia bellum cumeis geratur, cumromanis extemplo aut pacem aut bellum habendum. Quo minus cupiditatis ac studii visa est oratio habere, eo plus auctoritatis habuit. adiectum est praetoribus ac delectis senatorum militare etiam concilium : iussi et duces ordinum praefectique auxiliorum simul consulere. quum saepe acta res esset magnis certaminibus, postremo quia belli cumromanis gerendi ratio nulla adparebat, pacem cumeis fieri placuit mittique legatos adrem confirmandam.

Dies haud ita multi intercesserunt, quum exleontinis legati praesidium finibus suis orantes venerunt; quae legatio perobportuna uisa ad multitudinem inconditam ac tumultuosam exonerandam ducesque eius ablegandos. hippocrates praetor ducere eo

transfugas iussus; secuti multi ex mercenariis auxiliis quattuor milia armatorum ecfecerunt. et mittentibus et missis ea laeat expeditio fuit: nam et illis, quod iamdiu cupiebant, novandi res occasio data est, et hi sentinam quamdam urbis rati exhaustam laetabantur. ceterum leuauerunt modo inpraesentia uelut corpus aegrum quo mox ingrauiorem morbum recideret. hippocrates enim finitima provinciae romanae primo furtivis excursionibus uastare coepit; deinde quum adtuendos sociorum agros missum abappio praesidium esset, omnibus copiis inpetum in oppositam stationem cumcaede multorum fecit. quae quum essent nuntiata marcello, legatos extemplo syracusas misit, qui pacis fidem ruptam esse dicerent, nec belli defuturam umquam causam nisi hippocrates atque epicydes non absyracusis modo sed tota procul sicilia ablegarentur. epicydes ne aut reus criminis absentis fratris praesens esset, aut desset pro parte sua concitando bello, profectus et ipse inleontinos, quia satis eos aduersus p. r. concitatos cernebat, auertere etiam absyracusanis coepit. nam ita eos pacem pepigisse cumromanis, ut quicunque populi subregibus fuissent et suae ditionis essent, nec iam libertate contentos esse nisi etiam regnent ac dominentur. renuntiandum igitur eis esse, leontinos quoque aequum censere liberos esse, uel quod insolo urbis suae tyrannus ceciderit, uel quod ibi primum conclamatum adlibertatem relictisque regiis ducibus syracusas concursum. itaque aut eximendum id defoedere esse aut legem eam foederis non accipiendam. facile multitudini persuasum; legatisque syracusanorum et decaede stationis romanae querentibus et hippocratem atque epicydem abire locros seu quo alio mallent dummodo sicilia cederent iubentibus, ferociter responsum est, neque mandasse se syracusanis ut pacem prose cumromanis facerent neque teneri alienis foederibus. haec adromanos syracusani detulerunt abnuentes leontinos insua potestate esse. itaque integro secum foedere bellum romanos cumiis gesturos. neque sese defuturos ei bello, ita ut inpotestatem redacti suae rursus ditionis essent, sicut pax conuenisset.

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MIDSUMMER EXAMINATION.—SESSION 1835-36.

SENIOR LATIN CLASS.

PLAUTUS—MILES GLORIOSUS.—(*SECOND PAPER.*)

1. The Roman comedy of manners was of foreign import. While it found favour with the nobles the greater part of the Roman public were unable to appreciate its merits. The majority of those who wrote in this line were not strictly Romans. Establish or disprove these propositions.

2. How far did the Roman comedy observe the unities of time and place? Point out the advantages and disadvantages which result therefrom.

3. On what occasions were plays exhibited at Rome?

4. Prove that the plays were recited to music; that the characters of the females were filled up by men; that this, however, was not always the case.

5. Compare Terence and Plautus.

6. Mention any dates defining the time when Caecilius, Terentius, Plautus, Ennius, Livius Andronicus, and Naevius, were born, or wrote, or died.

7. Accentuate the following words: *imperium*, *adjutorem*, *exierit*, *redierit*, *reverearis*, *inhiat*, *mulieris*, *malitiose*, *odium*, *otium*, *ocius*.

8. Is the accent liable to be affected by a following enclitic, or an elision?

9. Quintil. Inst. xi. 3, 33. *Consonantium quaedam insequente vocali dissimulantur.* Prove that other final consonants besides *m*, were liable to elision.

10. Prove that the Romans did not pronounce every letter, or even every syllable in their words. What was the metrical power of the following words: *voluptas*, *senex*, *domi*, *novos*, *modo*, *cave*, *lacruma*, *surripis*, *quoius*, *edepol*, *fenestra*, *quidem*, *satis*, *duo*. Defend your assertions.

11. It is a dogma in Latin prosody, that *r* and *t* final are short. Show that this is not invariably true for Plautus, Terence, or even Virgil.

12. Define the comicus septenarius. What is it called by the Greek prosodians?

13. When is an hiatus admitted by Plautus?

14. Give the forms used by Plautus in place of: *scribi*, *nasus*, *dorsum*, *expergiscor*, *optimum*, *servus*, *pulsare*, *reduco*, *magnae*, *gratis* (adv.), *arcibo*, *mentietur*, *hilaris*, *efferre*, *decies*, *amavero*, *fecissem*, *eveniat*.

15. Define the following terms: *impluvium*, *obsonium*, *conciliare*, *meditari*, *soror*, *oppido*, *contemplari*, *plane*, *arbitrari*, *talus*, *familia*, *statuere*, *hostis*, *fores*, *foras* (adv.), *servare*, *adflictus*, *obedire*, *moliri*, *munire*.

16. Translate the following into English:

PURGOPOLINICES, ARTOTROGUS. (I. 1, 1.)

P. Curáte ut splendor meó sit clupeo clárior
quam sólis radii esse ólim quom sudúm'st solent,
ut ubi úsus veniat cóntra consertá manu
praestríngat oculorum áciem in acie hóstibus.
nam ego hánc machaeram míhi consolarí volo
ne lámentetur néve animum despóndeat
qúia se iampridem fériatam géstitem
quae mísere gestit fárctum facere ex hóstibus.
sed ubi ártotrogus? *A.* híc est, stat proptér urium
fórtem atque fotunátum et forma régia,
tum béllatorem—márs haud ausit dícere
neque aéquiperare suás virtutes ád tuas.
P. quemne egó servavi in cámpis gurgustídoniis

ubi bómbomachides clúninstaridisárchides
erat ímperator súmmus neptuní nepos?
A. mémini, nempe illum dícis cum armis aúreis
quoíus tu legiones díffiavisti spíritu
quasi uéntus folia aut péniculum tectórium.
P. istúc quidem edepol níhil est. *A.* nihil hercle hóc quidem
praeut ália dicam—— tú quae numquam féceris.
peririúorem hóminem si quis víderit
aut glóriarum pléniorem quam íllic est,
is mé sibi habeto, ei egó me mancupió dabo—
nisi únum epitirum.....insané bene.
P. ubi tú es? *A.* eccum edepol. vél elefanti in índia
quo pácto pugno praéfregisti bráchium?
P. quid? bráchium? *A.* illud dícere voluí, femur.
P. at índiligenter íceram. *A.* pol síquidem
connísus esses, pér corium per uíscera
perque ós elefanti bráchium transmitteres.
P. nolo ístaec hic nunc. *A.* nae hércle oprae pretiúm quidem
míhi te enarrare, tuás qui virtutés sciam.
uentér creat omnis hás aerumnas. aúribus
peraúrienda súnt ne dentes déntiant,
et ádsentandum'st quidquid hic mentíbitur.
P. quíd illud quod dico? *A.* hem, scío iam quid uis dícere.
factum hércle est, memini fíeri. *P.* quid id est? *A.* quídquid
est.
P. habés tabellas? *A.* uís rogare? habeo, ét stilum.
P. facéte advortis ánimum tuom ad animúm meum.
A. nouísse mores mé tuos meditaté decet,
curámque adhibere ut praévelim quod tú velis.
P. écquid meministi ——? *A.* mémini. centum in cílicia
et quínquaginta, céntum sicolatrónidae,
trigínta sardi, séxaginta mácedones
sunt hómines tu quos óccidisti unó die.
P. quanta ístaec hominum súmma'st. *A.* septem mília.
P. tantúm esse oportet. récte rationém tenes.

A. at núllos habeo scríptos, sic meminí tamen.
P. édepol memoria es óptuma. *A.* offa mé monet.
P dum tálem facies quálem adhuc, adsíduo edes.
commúnicabo sémper tibi mensá mea.
A. quid in cáppadocia, ubí tu quingentós simul
ni hebés machaera fóret uno ictu occíderes,
at . . . erant si víverent.
quíd tibi ego dicam, quod ómnes mortalés sciunt,
purgópolinicem té unum in terra uíuere
uirtúte et forma et fáctis inuictíssumis?
amánt te omnes múlieres neque iniúria
quí sis tam pulcer. uél illae quae heri pállio
me réprehenderunt ——. *P.* quíd heri dixerúnt tibi?
A. rogitábant, hicine achílles est, inquit, tibi?
imo éius frater, ínquam. íllarum altera
ergó mecasto púlcer est, inquít mihi,
et líberalis. uíde caesaries quám decet?
P. itane aíbat tandem? *A.* quaéne ambae obsecráverint
ut te hódie quasi pompam ílla praeterdúcerem?
P. nímia'st miseria púlcrum esse hominém nimis
A. moléstae sunt mihi. órant ambiunt óbsecrant
uidére ut liceat. ád sese arcessí iubent.
ut tuó non liceat óperam dare negótio.

ACROTELEUTIUM, MILPHIDIPPA, PLEUSIDES, ALAESTRIO.
(IV. 4. 1.)

A. Séquimini simul círcumspicite néquis adsit árbiter.
M. néminem pol uídeo nisi hunc quem vólumus conventum.
Pa. ét ego vos.
M. quíd agis noster árchitecte? *Pa.* egon árchitectus? váh.
M. quid est?
Pa. quí enim non sum dígnus prae te ut fígam palum in
párietem.
A. éia vero. *Pa.* nímis facete nímisque facundé mala'st.
út lepide derúncinauit mílitem? *A.* at etiám parum.

Pa. bóno animo es. negótium omne iam succedit súb manus.
uós modo porro ut óccepistis dáte operam adiutábilem.
nam ípse miles cóncubinam intro ábiit oratúm suam,
áb se ut abeat cúm sorore et mátre athenas. *Pl.* eú, probe.
Pa. quín etiam aurum atque órnamenta, quae ípse instruxit
múlieri,
ómnia dat dono, áb se ut abeat. íta ego consiliúm dedi.
Pl. fácile istuc quidem ést, si et illa vólt et ille autém cupit.
Pa. nón tusc is quom ex álto puteo súrsum ad summum escénderis,
máxumum periclum inde esse ab súmmo ne rursúm cadas?
núnc haec res apud súmmum puteum géritur. si prosénserit
míles, nihil auférri poterit húius. nunc quummáxume
ópus dolis. *Pl.* domí esse ad eam rem vídeo silvaí satis.
múlieres tres, quártus tute es, quíntus ego, sextús senex.

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EXAMINATION—JUNE 1836.

SENIOR LATIN CLASS.

CICERO'S LETTERS.—(*THIRD PAPER.*)

1. State what you know of the birth and education of Cicero. What was his age at the several periods of his filling the usual public offices? State briefly the course he pursued in relation to Caesar.

2. What do you know of Theophanes, Balbus, Lentulus Spinther, Curio, Hortensius, and Bibulus?

3. What was the rank of Atticus? Whence did he derive his wealth?

4. Enumerate the provinces of the Roman empire at the period prior to the civil war between Caesar and Pompey. Which of these belonged to Pompey and Caesar?

5. How did Bithynia, Egypt, and Syria, become Roman provinces?

6. Trace Cicero's route to his province.

7. Give a precise statement of what the Roman year was prior to the Julian correction, including the position of the ides and nones in each month; and express in Latin *May 27th* and *April 10th.*

8. How was a Roman citizen's name entered in the census?

9. Explain the symbol commonly represented in printed books by H. S. What sum of money did the Romans denote by *decies?* Give the Latin for $7\frac{1}{2}$. Is the same method of denoting mixed numbers followed in any other language?

10. Shew how the use of the Latin tenses is affected in epistolary writing.

11. Translate the following into English (D. III. 8.) :—

Tu cum istiusmodi sermones ad te delati de me sunt, non debuisti credere. Si autem hoc genere delectaris ut quae tibi in mentem veniant aliis attribuas, genus sermonis inducis in amicitiam minime liberale. Ego si in provincia detrahere de tua fama unquam cogitassem, non ad generum tuum Lentulum, neque ad libertum tuum Brundisi, neque ad praefectum fabrum Corcyrae, quem in locum me venire velles, rettulissem. Quare potes doctissimis hominibus auctoribus, quorum sunt de amicitia gerenda praeclarissime scripti libri, genus hoc totum orationis tollere : *Disputabant, Ego contra disserebam ; Dicebant, Ego negabam.* An mihi de te nihil esse dictum unquam putas ? ne hoc quidem quod cum me Laodiceam venire voluisses, Taurum ipse transisti ? quod isdem diebus meus conventus erat Apameae, Synnadis, Philomeli ; tuus Tarsi ? Non dicam plura, ne in quo te objurgem id ipsum videar imitari. Illud dicam ut sentio, Si ista quae alios loqui dicis ipse sentis, tua summa culpa est ; sin autem alii tecum haec loquuntur, tua tamen quod audis culpa nonnulla est. Mea ratio in tota amicitia nostra constans et gravis reperietur. Quod si qui me astutiorem fingit, quid potest esse callidius quam cum te absentem semper defenderim, cum praesertim mihi usu venturum non arbitrarer ut ego quoque absens a te defendendus essem, nunc committere ut tu jure optimo me absentem deserere posses.

12. Translate the following into English (D. VIII. 8) :—

Itemque senatui placere, in Ciliciam provinciam in octo reliquas provincias quas praetorii pro praetore obtinerent, eos qui praetores fuerunt neque in provincia cum imperio fuerunt, quos eorum ex S. C. cum imperio in provincias pro praetore mitti oporteret, eos sortito in provincias mitti placere. Si ex eo numero quos ex S. C. in provincias ire oporteret, ad numerum non essent qui in eas provincias proficiscerentur ; tum uti quodque collegium primum praetorum fuisset neque in pro-

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MIDSUMMER EXAMINATION, SESSION 1835—1836.

HEBREW.—First Class.

1. What is meant by the subordinate members of a proposition; and how are they indicated in Hebrew? Give examples. 50

2. Specify the cases in which the definite article is omitted in Hebrew, and give the reasons of the omission. 100

3. State the several ways in which the superlative is indicated in Hebrew. Give examples. 50

4. When the *copula* happens to be omitted, how are you to know whether the several words form an entire proposition or only a part of one? 60

5. The word בַּעֲבוּרֶךָ, Gen. iii. 17, is rendered in the English version by "*for thy sake;*" in the Septuagint, by ἐν τοῖς ἔργοις σου; and in the Vulgate, by *in opere tuo.* You are required to state which of these renderings agrees best with the Hebrew text; and the source of error in those that deviate from it. 140

6. Express the following numbers in Hebrew words:—
127, 1600, 600,000, 1000, 200,000, 675,000. 100

7. What is the difference in point of concord between the cardinal numbers from 2 to 10, and those above 10? 50

8. Translate into English v. 7, 8, 9, 10, and 11, Gen. xv.; and specify the roots of the several verbs which occur in them. 150

9. How must the authors of the Septuagint have read the following words, וַיֵּשֶׁב אִתָּם אַבְרָם* which they rendered by Καὶ συνεκάθισεν αὐτοῖς Ἀβραμ—*And Abram sat with them?* 200

10. What is meant by the ו conversive? State its force and restriction. 100

11. Translate the following into Hebrew: "And Jacob rent his clothes, and put sackcloth upon his loins, and mourned for his son many days." 100

12. Translate Psalm xv. into English. 200

13. Write, translate, and affix the vowel points to the following: 150

לקדושים אשר בארץ המה ואדירי כל חפצי בם: ירבו עצבותם
אחר מהרו בל אסיך נסכיהם מדם ובל אשא את שמותם על
שפתי:

HYMAN HURWITZ,
Professor.

* Gen. xv. 11.

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MIDSUMMER EXAMINATION, SESSION 1835—1836.

HEBREW.—Second Class.

1. Write and translate the following מַחֲנֵה יִשְׂרָאֵל, שִׁירַת דּוֹדִי, דִּבְרֵי הָאִישׁ, עֵינֵי הָאֲנָשִׁים, אֲבוֹת אָבוֹתֶיךָ, בֵּית תְּפִלָּה, רְקִיעַ הַשָּׁמַיִם. 50

2. Express in writing the absolute state of all the words which are in the preceding examples in a state of construction. 50

3. Render the following into Hebrew: "Abraham's servant," "True words," "The word of my master," "The law of Moses," "Silver vessels," "The spirit of God." 100

4. Add the possessive pronominal affixes to the active participle of the verb פָּקַד "to visit." 50

5. Do the same with the passive participle of the verb אָהַב "to love." 50

6. Render the following into English: כַּבֵּד אֶת יְיָ מֵהוֹנֶךָ
לֵךְ מֵאַרְצְךָ וּמִבֵּית אָבִיךָ אֶל הָאָרֶץ אֲשֶׁר אַרְאֶךָּ: רֵעֲךָ רֵעַ
אָבִיךָ אַל תַּעֲזֹב: 50

7. How are the degrees of comparison expressed in Hebrew? Give examples. 60

8. Express in Hebrew the cardinal numbers from one to ten, *m* & *f*. 100

9. Give the English translation of verses 21, 22, 23, and 24, ch. iii. Gen., and the roots of the several verbs. 150

10. Illustrate by examples the force of *Piel*, *Hiphil*, and *Hithpael*, and state their characteristics. 100

11. Write the active and passive participles of "Piel" of the verb בָּרַךְ "to bless." 60

12. Write past tenses of *Niphal*, *Piel*, and *Pual* of the same verb. 100

13. Write the past and future of the verb עָמַד "to stand," and the future (*Niphal*) of the verb נָגַשׁ "to approach," and יָשַׁב "to sit." 150

14. Translate the following into Hebrew: "And the Lord said unto Cain, Where *is* Abel thy brother? And he said, I know not, *Am* I my brother's keeper?" 100

HYMAN HURWITZ,
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MIDSUMMER EXAMINATION—SESSION 1835–36.

FACULTY OF ARTS.

CLASS OF THE PHILOSOPHY OF THE HUMAN MIND AND LOGIC.—(*FIRST PAPER.*)

SECOND*, OR HIGHER EXAMINATION.

1. What have been the theories of philosophers respecting sensation, perception, and ideas; and what is your estimate of these theories?

2. What views have been entertained respecting the mode in which we acquire the notion of extension, and of an external world?

3. To what general principles may we reduce association?

4. Analyse memory, and distinguish it from suggestion?

5. State all the modes of classifying the mental phenomena which you can recollect, as proposed by philosophers; and state your reasons for the mode you adopt.

6. What do you understand to be the question between the materialists and the immaterialists, and what view do you take of it?

7. What authors have noticed the fact of the association of ideas, from Aristotle downwards; and what have been their views?

* The *First*, or Elementary Examination, is omitted, as adapted for a *Junior* Course.

8. How do you distinguish between a mental *operation* and a mental *faculty;* and on what principle do you assign one set of phenomena to a distinct faculty, and not another set?

9. Describe generalization and classification; and analyse the process.

10. What have been the views of philosophers with respect to abstraction; and wherein do you understand it to differ from generalization?

11. Give a brief history of the controversy between the Nominalists and the Realists.

12. Distinguish between nominalism, realism, conceptualism, and relationism: and state which view you prefer; and wherefore.

13. What is belief; and what are its kinds?

14. What do you understand by reasoning? Trace its general analysis, independently of the syllogism.

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MIDSUMMER EXAMINATION.—SESSION 1835–36.

FACULTY OF ARTS.

CLASS OF THE PHILOSOPHY OF THE HUMAN MIND AND LOGIC.—(*SECOND PAPER.*)

CONTINUATION OF THE HIGHER EXAMINATION.

1. Distinguish demonstration from probable reasoning.

2. Give an example of an argument *à priori*, and *à posteriori*.

3. State the principal circumstances on which the truth of human testimony depends.

4. Explain the controversy respecting Liberty and Necessity.

5. Give a brief account of the philosophy of Locke.

6. State the arguments for and against resolving the emotions derived from objects of taste wholly into association.

7. State, in brief, what you know of the French and German schools of philosophy.

SOLVE THE FOLLOWING EXAMPLES BY THE RULES OF LOGIC.

1. The testimony of an enemy, being that of a reluctant witness, is likely to be true.

2. Cogito, ergo sum.

3. Sullae et Caesaris pecuniarum translatio ad alienos non debet liberalis videri : nihil enim est liberale quod non idem justum.

4. What being can be more wretched than the miser? he is always in want, and never satisfied.

5. Nothing which is of less frequent occurrence than the falsity of testimony, can be fairly established by testimony; and as any unusual fact is such a thing, it cannot be so established.

6. Testimony is a kind of evidence very likely to be false. Now the evidence on which most men believe that there are pyramids in Egypt, being testimony, it is very likely to be false.

7. AB and CD being each equal to EF, are equal to each other.

8. A story is not to be believed, the reporters of which give contradictory accounts of it; hence the story of Bonaparte is incredible.

9. War is productive of evil; therefore peace produces good.

10. Animal food may be dispensed with, and so may vegetable food; therefore all food may be dispensed with.

11. If all testimony to miracles is to be admitted, the Hindoo legends are to be believed; but as the Hindoo legends are incredible, no testimony to miracles can be admitted.

12. Frame an example of your own, in each mood of the second, third, and fourth figure; and reduce it to the first figure.

JOHN HOPPUS,
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EXAMINATION—JUNE 1836.

FACULTY OF ARTS.

MATHEMATICS.

JUNIOR CLASS.—(*FIRST DIVISION.*)

1. State the fundamental property of a straight line,—of a plane.

2. If two sides and the included angle of one triangle be equal to two sides and the included angle of another, prove that the triangles are equal in every respect.

3. Enumerate the propositions in Euclid's series which intervene between those given in (2) and (4).

4. Bisect a given angle.

5. At a given point in a given straight line, make an angle equal to a given angle.

6. Is it always possible to make a triangle having two of its angles equal to two given angles and one of its sides equal to a given straight line? Prove the proposition on which your answer depends.

7. At a ship A a headland is observed to the S.E.; at another ship, B, south of A, it is observed at the same time to the N.N.E. Is it nearer to A or to B?

8. If a straight line cross two others, and make the alternate angles equal, or the two interior angles on the same side of it equal to two right angles, prove that the two straight lines are parallel.

9. Prove that straight lines which are parallel to the same straight line are parallel to one another.

10. What angles do the sides of an equilateral triangle subtend at the point within, which is equidistant from the corners? If the triangles formed by drawing straight lines from this point to the corners be turned over about the sides of the equilateral triangle, prove that the figure thus obtained is a regular hexagon.

11. If a parallelogram and a triangle be on the same base and between the same parallels, prove that the former is double of the latter.

12. If a quadrilateral figure have two opposite sides parallel, prove that it is equal to a parallelogram, between the same parallels, and having its base equal to half the sum of the parallel sides.

13. Prove that the square described on the hypotenuse of a right-angled triangle is equal to the sum of the squares described on the other sides.

14. If a perpendicular be drawn from an angle of an equilateral triangle to the opposite side, prove that four times the square described on it is equal to three times the square described on one of the sides.

15. Describe a circle touching three given straight lines.

16. When two triangles are equiangular, prove that the sides of one have to the sides of the other, respectively, the same ratio, the corresponding sides being those which are opposite the equal angles.

17. If the sides of one triangle have to the sides of another, respectively, the same ratio, show that the angles opposite corresponding sides are equal.

18. Find a fourth proportional to three given straight lines.

19. There are three places, A, B, C; the distance between A and B is 10 miles, between A and C 17, between B and C 21: find, by a construction, the angle which A and B subtend at C.

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EXAMINATION—JUNE 1836.

FACULTY OF ARTS.

MATHEMATICS.

FIRST CLASS.—(*SECOND DIVISION.*)

1. What instruments would be required to make Euclid's constructions? In what sense is the trisection of an angle said to be impossible?

2. Apply the geometrical analysis to find the locus of the centre of a circle, whose circumference passes through a given point, and is equidistant from two other given points, both within or both without the circle.

3. If two sides of one triangle be equal to two sides of another respectively, the included angles being unequal; of the remaining sides, that which is opposite the greater angle is the greater.

4. Prove that a parallelogram, whose diagonals are equal, is a rectangle.

5. State the geometrical method by which Legendre attempts to get over the difficulty of parallel lines, and point out its fallacy.

6. Parallelograms on the same base and between the same parallels are equal.

7. In a triangle ACB having the angle C obtuse, AD is drawn perpendicular to BC produced: show that the square on AB is equal to the sum of the squares on CA, CB, together with twice the rectangle contained by CB, CD.

8. Draw a straight line through a given point cutting two given circles, one of which includes the other, so that the parts of it between the circles may be equal.

9. Draw a tangent to a circle from a given point without the circle.

10. Angles in the same segment of a circle are equal.

11. Having given three points in the circumference of a circle, determine a fourth, so that the figure formed by drawing tangents through them may be inscribable in a circle.

12. Two straight lines being drawn from the extremities of a third, describe a circle touching all of them.

13. An isosceles triangle, with a given vertical angle, has its vertex at a given point, and one extremity of its base in a given line: determine the locus of the other extremity.

14. Inscribe an equilateral triangle in a square, so that the vertex may be at a given point in one of the sides of the square.

15. Divide the circumference of a circle into five equal parts.

16. Two triangles are equiangular when two sides of one are in the same ratio as two sides of the other, and the included angles equal.

17. Define similar figures: prove the proposition contained in Euclid's definition, and show that similar figures may be divided into the same number of similar triangles.

18. A parallelogram, about the diagonal of a parallelogram, is similar to it.

19. If similar and similarly-situated figures be described on the three sides of a right-angled triangle, the figure on the hypotenuse is equal to the sum of the other two.

20. If two circles touch another, the segments of the line joining their centres, made by the line joining the points of contact, are as their radii.

21. Find a mean proportional between two given straight lines.

22. Construct the line represented by a^n, where n is a given integer; the linear unit and the line represented by a being given. In what cases can you construct a^n when n is a fraction?

23. Divide a line in extreme and mean ratio by Algebra; and show that the result leads to Euclid's construction.

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EXAMINATION—JUNE 1836.

FACULTY OF ARTS.

MATHEMATICS.

JUNIOR CLASS.—(*FIRST DIVISION.*)

1. Prove the rule for finding the difference of two numbers expressed according to the Arabic system.

2. State and prove the rule for subtracting a number from 1000...

3. To what extent is it necessary to carry the multiplication table? Form the multiplication table when the base is six.

4. The nth term of a series is $11n + 7$, what is the 57th term?

5. If a guineas and b sovereigns be equally divided among n persons, what is the share of each in shillings?

6. Prove the rules for multiplying and dividing any fraction $\frac{a}{b}$ by an integer c.

7. On inclosing a common of 1000 acres, there were four principal allotments, consisting of $\frac{1}{6}$, $\frac{2}{7}$, $\frac{3}{14}$, and $\frac{2}{21}$ of the whole: and the surveyor had $\frac{3}{5}$ of the remainder. What was his share?

8. Which of the two, $3\frac{2}{5}$ and $\frac{7}{9}$ of $4\frac{5}{6}$, is the greater?

9. If $a : a' :: m : m'$

$b : b' :: n : n'$

then $ab : a'b' :: mn : m'n'$.

10. Explain the method of solving the problems commonly given under the double rule of three.

11. If 12 men mow $210\frac{1}{2}$ acres in $7\frac{1}{4}$ days, in how many days will 30 men mow 1000 acres?

12. Prove that $ma + na = (m + n)a$.

13. Reduce $5a + b - 7 + 3a - 3b + a$,

$$7(a + 2) - 5(a - 11),$$

$$\frac{a-4}{7} - \frac{a-2}{21}, \quad 1 - \frac{1}{1+a}.$$

14. Solve the equations

$$2x - 3 = 11 - 5x, \quad 7x = 523 - 2(x - 5),$$

$$\frac{x+1}{2} = 7 - \frac{x-2}{3}.$$

15. There are two polygons, one of which has twice as many sides as the other, and the sum of their angles is 34 right angles. How many sides have they?

16. Two ships, having on board 40 and 70 seamen respectively, besides officers, take equal prizes. The officers of the first share £400 among them, those of the second £500, and the seamen of the first receive twice as much each as those of the second. Determine the value of each prize.

17. What is the meaning of a^m, m being an integer? prove that $a^m \times a^n = a^{m+n}$.

18. Multiply $2ax - x^2$ by $a - 3x$.

19. Prove that if the sum of two numbers be multiplied by their difference, the product is the difference of their squares.

20. If 8 be divided into two parts, 3 and 5, the result is the same whether you add the square of 3 to 8 times 5, or the square of 5 to 8 times 3. Prove that the same thing will happen, if you take any number and any parts of it.

21. Obtain $(x + a)^2$ and $(x - a)^2$ by multiplication; hence determine $(x + \frac{5}{6})^2$, $(7 - x)^2$, and verify the results when $x = \frac{2}{3}$.

22. Solve the equations $x^2 - 11x = 26$,

$$2x^2 - 17x + 35 = 0.$$

23. A person at three different times divided £48, £21, and £25, among some poor people. On the second occasion the number of persons was one more, and on the third one less than it was on the first; and the first dividend was equal to the other two together. Determine the number of persons.

University of London.

EXAMINATION—JUNE 1836.

FACULTY OF ARTS.

MATHEMATICS.

JUNIOR CLASS.—(*FIRST DIVISION.*)

1. What is a decimal? Express $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, as decimals.

2. Prove the rule for multiplying and dividing a number by 100....

3. Prove the rule for the multiplication of decimals.

4. If the inner ring of the Regent's Park be a mile in circumference, what is its diameter?

5. 572^2 being 327184, determine 5720^2 and 5726^2: and prove the rules.

6. Extract the square root of 5·729 to two places of decimals, and determine the remainder. Connect the root and the remainder with the given number by an equation.

7. Reduce $\sqrt{12} + 2\sqrt{75}$, $\sqrt{6} \div \sqrt{2}$.

8. What is meant by a^m, when m is a fraction?—when it is a decimal?

9. Prove that $a^m \times a^n = a^{+n}$ when m is a fraction.

10. Reduce $\dfrac{\left(a^{\frac{1}{4}}\, b^{\frac{4}{3}}\right)^2}{(ab^2)^{\frac{1}{3}}}$.

11. Show that the decimal part of the logarithm of a number is independent of the place of the decimal point in the number; also prove the rule for determining the integral part.

12. Calculate by logarithms $7{\cdot}12 \times 83{\cdot}91$, $\sqrt[3]{814{\cdot}7}$.

13. Calculate $\dfrac{572{\cdot}1}{83490}$, $\dfrac{932\sqrt{\cdot}524}{(31{\cdot}18)^2}$.

14. Show that P£ will amount to $P\,(1{\cdot}04)^n$ in n years at 4 per cent. per annum compound interest: and calculate the amount of £50 in twenty years.

15. Define the sine, cosine, and tangent of an angle.

16. What equation subsists between the sine of an angle and the decimal against it in the logarithmic tables? Express sin. 23° 37′ as a decimal, using the logarithmic tables only.

17. If the sum of two angles be 90°, prove that the sine of one of them is equal to the cosine of the other.

18. The height of the Monument is 202 feet: find the length of the shadow cast by it when the sun's altitude is 32°.

19. A stone, let fall from the top of a tower 100 feet high, strikes the ground five feet from the base. What angle does the side of the tower make with the vertical?

20. If in a triangle ABC, CD be drawn perpendicular to AB, show that $\dfrac{AD}{BD} = \dfrac{\text{tan. B}}{\text{tan. A}}$.

University of London.

EXAMINATION—JUNE, 1836.

FACULTY OF ARTS.

MATHEMATICS.

JUNIOR CLASS.—(*SECOND DIVISION.*)

1. Explain fully the nature of a limit.

2. What do you mean by multiplying and dividing one limit by another? Define $\sqrt[p]{a}$.

3. Reduce $\sqrt{a^2 + 9x^2} - 2x$ when $72x^2 = a^2$ (1)

$\{\sqrt{12} + \sqrt{10}\}^2 \ldots$ (2)

$\sqrt{17 - 3\sqrt{5}} \ldots$ (3)

4. Find the limit of the series a, $a - ar$, $a - ar + ar^2$, &c.

5. Find a series of fractions converging to $\sqrt{3}$.

6. Express $\sqrt[3]{a^3}$ under the form a^m, m being a decimal.

7. Prove that $(a^m)^n = a^{mn}$, both when n is an integer, and when it is a fraction.

8. Reduce $\dfrac{a^2 (a - x)^{\frac{2}{3}}}{\sqrt[3]{a^2 - ax}}$, $\dfrac{(ab^2)^{\frac{2}{3}} (a^2 b)^{\frac{1}{6}}}{(a^{\frac{2}{3}} b^{\frac{3}{2}})^{\frac{1}{2}}}$,

and solve the equations $(a^{\frac{1}{2}} x)^{\frac{2}{3}} x^{\frac{5}{6}} = (ab)^{\frac{3}{2}}$, $9x^{\frac{5}{3}} = 2x^{\frac{5}{4}} + 10$.

9. Prove that $(1 + x)^{\frac{1}{n}} < 1 + \dfrac{x}{n}$, and show the possibility of expressing any number not less than 1 by a^m, a being a given number greater than 1.

10. Calculate by logarithms $2 + \sqrt{15}$, and $\dfrac{a^2}{\sqrt{b}}$ where $a = 21.27$, and $b = .329$.

11. Show that $\log._a x = \frac{\log. x}{\log. a}$, any common base being understood in both the terms on the second side.

12. Two persons of the same age invest 100*l.* each at 4 per cent. compound interest, on attaining the ages of seventeen and eighteen respectively. In what year will their investments together amount to 500*l.*?

13. Define the sine, cosine, and tangent of an angle.

14. Solve the equation $\tan. x = \frac{5}{3}$ by a construction and by the tables.

15. If $\tan. x = \frac{a}{b}$, what are $\sin. x$ and $\cos. x$?

16. A wheel 5 feet in diameter comes in contact with a post 9 inches high: determine the portion of the circumference which is between the points in which the wheel touches the ground and the post.

17. A regular polygon of n sides has the middle points of its sides joined by straight lines: determine the ratio of the perimeter and area of the inner polygon to those of the outer.

18. Prove that $1 + \cos. A = 2\left(\cos. \frac{A}{2}\right)^2$.

19. The perimeter of an isosceles triangle is a, and each of the angles of the base is A; show that each of the equal sides is $\frac{a}{4}\left(\sec. \frac{A}{2}\right)^2$.

20. Express an angle of a triangle in terms of the sides.

21. A person travelling along a straight road, at a certain point observed a village three miles off; on proceeding further he came to a road leading to the same village, which was then seven miles off, and this road met the main road at an angle 27°: determine the distance which he travelled in the interval.

22. Prove that $\cos. (A + B) = \cos. A \cos. B - \sin. A \sin. B$.

23. Solve the equations $\tan. x = 7 \tan. y$, $x + y = 50°$.

24. Explain the principles of symbolical algebra.

University of London.

EXAMINATION—JUNE 1836.

FACULTY OF ARTS.

MATHEMATICS.

SECOND CLASS.

1. Define a parabola: and show that by the construction of parabolas the problem of the duplication of a cube may be solved.

2. Any ordinate of a parabola is the hypotenuse of a right-angled triangle, of which any two ordinates, equidistant from the former and from the vertex respectively, are the sides.

3. Prove that the tangent at any point P of a parabola makes equal angles with the focal distance and the line drawn through P parallel to the axis.

4. In a parabola $p^2 = mr$, p and r being drawn from the focus. Prove this, and find an ordinate equal to p, r being given.

5. Find the locus of the vertex of a right-angled triangle having its hypotenuse in a given straight line, one extremity of it fixed, and the other at a given distance from the foot of the perpendicular drawn from the vertex to the hypotenuse.

6. Prove that the focal distances of any point in an ellipse are $a \pm \frac{c}{a} x$, x being the abscissa measured from the centre; and hence find the latus rectum.

7. Find the locus of the intersection of the tangent at any point of an ellipse, and the perpendicular drawn to it from the focus.

8. Prove that the product of the perpendiculars drawn from the foci of an ellipse to any tangent is constant.

9. The tangent of an ellipse meets the major axis at a distance from the vertex equal to the semi-minor axis: find the abscissa of the point of contact, and show that the normal meets the axis at the same distance from the vertex.

10. Find the equation to an ellipse referred to two conjugate diameters.

11. Prove that the sum of the squares of two conjugate diameters is constant.

12. Define asymptotes, and determine the rectilinear asymptotes of a hyperbola.

13. Draw two conjugate diameters of a hyperbola, so that one of them may be parallel to a given straight line: also show that if any straight line cut a hyperbola and its asymptotes, the part between the curve and the asymptote is the same on both sides.

14. Find the polar equation to a parabola, the focus being the pole: and hence show that the chord through the focus $= \frac{4m}{(\sin\theta)^2}$

15. Trace the curves $x^2 + y^2 - 10x = 4$,

$$x^2 - 3y^2 + 2x - 12y = 0.$$

16. If two straight lines be perpendicular to a plane, a plane may be passed through them.

17. Draw a plane parallel to two given straight lines.

18. Prove that parallelopipeds on the same base and of the same altitude are equal.

19. If a plane section of any cone be an ellipse, prove that the parallel sections are similar ellipses, and that their centres and foci lie in straight lines, passing through the vertex.

20. Determine the plane sections of a right cone with a circular base.

21. If a plane cut both sides of a right cone with a circular base, the section is the same ellipse as that which touches the axis of the cone, and has its foci in a slant side at the points where that side is cut by the planes, perpendicular to the axis, which just include the section.

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FACULTY OF ARTS.

MATHEMATICS.

SECOND CLASS.—(*FIRST DIVISION.*)

1. Find the equation to a straight line.

2. Show that every equation of the first degree represents a straight line, and trace the line $7x + 2y = 5$.

3. Find the equation to the straight line drawn through the point $(-1, 3)$ at right angles to the line $5x + 4y + 1 = 0$, the axes being at right angles: and determine the point of intersection of the lines.

4. Trace the curve $y^2 = (x - 2)^2(x - 1)$.

5. Explain fully what you mean by a function increasing at the same rate at which it began, and give examples.

6. Define a differential,—an integral.

7. Prove that $d(au) = adu$, $da = 0$.

8. u being a function of x, differentiate u^n with respect to x.

9. Prove the rule for differentiating uv.

10. Prove the rule for differentiating $\dfrac{u^m v^m \ldots}{x^r y^s \ldots}$.

11. Differentiate $\sqrt[3]{mx}$, $\{3a^2x - x^3\}^{\frac{5}{3}}$.

12. Integrate $(2a^2 - x^2)dx$, $\dfrac{x^2dx}{\sqrt{a^3 - x^3}}$, $\dfrac{dx}{x^{\frac{1}{3}}}$.

13. Find an expression for the length of the subnormal of a curve, and apply it to show that the subnormal of a parabola is constant.

14. Find the area of a parabola.

15. Find the inclination of the curve in (4) to the axis at any point, and at the points at which it cuts the axis; also determine the points at which the curve is parallel and inclined at an angle 45° to the axis.

16. A person engages workmen to build a coach, on condition that they shall each have the use of it for m days after it is completed. How many workmen must he employ in order that he may get possession of it in the shortest time? it being supposed that the work would occupy a men n days.

17. Find the content and surface of that portion of the solid traced out by the curve $m^2y = x^3$, which is intercepted between planes perpendicular to the axis at distances 1 and 2 from the origin.

18. Find the length of the arc of a cycloid.

University of London.

EXAMINATION—JUNE 1836.

FACULTY OF ARTS.

MATHEMATICS.

SECOND CLASS.—(*FIRST DIVISION.*)

1. Determine the present worth of an annuity.

2. For how many years ought a person to receive an annuity of £40 by paying £300, interest being $4\frac{1}{2}$ per cent.?

3. The ratio of the sum of the chords of a given circular arc to the diameter being given, when the arc is divided into any given number of equal parts; find the ratio when the arc is divided into twice as many equal parts. Point out the use which may be made of this poposition.

4. Prove that the sector of a circle $= \frac{1}{2} r^2 \theta$.

5. Show that the circle which passes through the poles of two great circles has their point of intersection for its pole. What parts of the former measure the angle contained by the latter?

6. Find the relation between two angles and a side of a right-angled spherical triangle.

7. The minute-hand of a clock, which makes an angle of 7° with the face, indicates 23′; the plane through it and the eye of the spectator being perpendicular to the face: what would be the indication if the plane were inclined at an angle 57° to the face?

8. In a plane triangle $\frac{\sin. A}{\sin. B} = \frac{a}{b}$: state and prove the corresponding property in a spherical triangle.

9. In a spherical triangle

$$\sin.^2 \frac{c}{2} = \sin.^2 \frac{a+b}{2} - \sin. a \sin. b \cos.^2 \frac{C}{2}.$$

10. Determine the limits of the sum of the angles of a spherical triangle.

11. A side of an equilateral triangle is parallel to a side of a regular pentagon, and their planes are inclined at an angle 53°: determine the inclination of any side of one to any side of the other.

12. Explain fully the method of making a map of a large track of country.

13. Find the angles of an equilateral spherical triangle, whose surface is $\frac{1}{20}$ of that of the sphere.

14. Find the surface of a sphere.

15. Compare the content of a spherical segment with that of the greatest inscribed cone: and determine the limit of the ratio.

16. What is meant by drawing in perspective? Prove that the representation of a straight line parallel to the perspective plane, is parallel to the line; and show how the length of the representation depends on the distance of the line from the plane.

17. Prove that the vanishing points of straight lines parallel to a given plane are in a straight line parallel to the plane: and determine the distance of this line from the foot of the perpendicular drawn from the eye to the picture.

18. Represent a closed writing-desk (1), an open one (2).

University of London.

EXAMINATION—JUNE 1836.

FACULTY OF ARTS.

MATHEMATICS.

SECOND CLASS.—(*SECOND DIVISION.*)

1. Find the relation between two sides and an angle of a right-angled spherical triangle.

2. In a spherical triangle, if x and y be the segments of the side c, made by the perpendicular drawn to it from C, show that

$$\sin.\frac{y-x}{2}=\frac{\sin.(A-B)}{\sin.(A+B)}\sin.\frac{c}{2}.$$

3. If an arc of a great circle meet two others, and make the alternate angles equal, prove that these arcs will meet if produced, and that the sum of the portions between the first arc and the point of section will contain 180°.

4. Prove Napier's analogies.

5. If the possible roots of an equation be arranged in order of magnitude, the derived equation will have one possible root, at least, corresponding to every two consecutive ones,—between them if they are unequal, equal to either of them if they are equal.

6. Form the equation whose roots are the three quantities which satisfy the equations

$$a + b + c = 3,\ ab + ac + bc = -12,\ abc = 4:$$

and ascertain whether they are all possible.

7. If an expression proceeding by powers of x vanish when $x = \alpha + \beta\sqrt{-1}$, prove that it also vanishes when $x = \alpha - \beta\sqrt{-1}$.

8. Prove that $ah^\alpha + bh^\beta +$ &c. has the same sign as its first term, for all values of h below a certain number; $\alpha, \beta, \ldots$ forming an increasing series, and $\frac{b}{a}, \frac{c}{b}, \ldots$ being all finite.

9. Expand log. $(1+x)$, and deduce a series for the calculation of logarithms.

10. Find the limit of $\left(\text{cos.}\ \frac{a}{x}\right)^x$ when x is increased indefinitely.

11. Find the length of the straight line drawn from a given point perpendicular to a given straight line.

12. Show that the roots of the equations

$$x^2 + y^2 - 4x + 7y = 0$$
$$x^2 + y^2 + x + y - 7 = 0$$

may be determined by the intersection of a straight line and a circle.

13. Straight lines drawn from a fixed point to the extremities of a straight line of given length, always intercept equal portions of a fixed straight line perpendicular to the moveable one: determine the locus of the middle point of the latter.

14. Solve the general problem of the transformation of coordinates.

15. Apply the last proposition to determine the equation to a hyperbola referred to its asymptotes.

16. Trace the curves $r\theta^2 = a$, $r = a\theta^2$, and find the relation between their radii corresponding to the same value of θ. Also determine the points in which they intersect one another.

17. Calculate $\Delta 0^3$, $\Delta^2 0^3$, $\Delta^3 0^3$.

18. Sum the series $\frac{1}{2\times 11} + \frac{1}{5\times 14} + \frac{1}{8\times 17} + \ldots$: and determine the series whose sum is $\frac{x(x+1)(4x+11)}{6}$.

19 Prove the method of integrating by parts, and apply it to find $\Sigma \frac{x}{a^x}$.

20. The mean between the amounts of a person's income in two successive years increases in arithmetic progression. If he invest half of his income every year at compound interest, what will be the amount of his investments at the end of any year.

University of London.

EXAMINATION—JUNE 1836.

FACULTY OF ARTS.

MATHEMATICS.

SECOND CLASS.—(*SECOND DIVISION.*)

1. Prove the rules for differentiating lx and $\tan.^{-1}\frac{x}{a}$.

2. Obtain a rule for differentiating $f\{u, v, w, \ldots\}$, u, v, w, being functions of the symbol with respect to which the differentiation is performed.

3. Differentiate $\frac{a-x}{\sqrt{a+x}}$, $\frac{\cos. mx}{\varepsilon^{ax}}$.

4. Integrate $x\,\mathrm{D}x\sqrt{a-bx^2}$, $\frac{\mathrm{D}x}{x\sqrt{x^2+4x+1}}$.

5. Integrate $(\cos. x)^5\,\mathrm{D}x$, $x^4\,(lx)^3\,\mathrm{D}x$.

6. What is meant by an integral between limits? Show that by reversing the limits you merely change the sign.

7. Find $\int_0^{2a} \frac{x^{\frac{n}{2}}\,\mathrm{D}x}{\sqrt{2a-x}}$.

8. A parabola always passes through two given points, and has its axis perpendicular to the straight line which joins them. Compare the corresponding small alterations in the latus rectum and the place of the vertex.

9. Find the tangent of the angle which a curve makes with the axis at any given point.

10. In a cycloid, the chord which is drawn through the middle of the axis parallel to the base, and all chords which are bisected by it, have the tangents at their extremities at right angles.

11. Determine the quantity of light emitted perpendicularly from a luminous circle, supposing that the rate of emission varies as cos. mx, x being the distance of the point of emission from the centre.

12. Obtain a formula for the length of a curve referred to rectangular axes. Apply it to the common parabola.

13. Show that the lengths of the polar curves $r\theta^2=a$, $r=a\theta^2$, between two radii, are respectively equal to the lengths of the curves $y^2=ax$, $9ay^2=x^3$ between the points of which the two radii are abscissæ.

14. Find the area described by the radius vector of the curve $r\theta^2=a$ in any revolution.

15. Find the content of a portion of a paraboloid cut off by a plane perpendicular to the axis: and hence determine the content of a portion of it intercepted between two planes through the axis.

16. A parabola, whose axis passes through the circumference of a given circle at right angles to the plane of the circle, and whose vertex is fixed, revolves about its axis, altering its size, so that it may always stand on a chord of the circle: determine the content traced out by it.

17. Prove Taylor's theorem.

18. The upper part of a given cube is to be formed into a right pyramid, having its base parallel to the bottom of the cube. Show how to divide the cube, so that the surface of the compound solid may be a minimum.

19. Show how to determine the position of a curve with respect to its tangent at any point.

20. Trace the curve $y^2 = \dfrac{x^3 - a^3}{(2x - a)^2}$.

21. Find the length of the perpendicular drawn from the pole of a lemniscata to the tangent. Also find the maximum value of the triangle SPY.

22. What is the greatest order of contact between a circle and a given curve at *any* given point of the latter? Show how to determine the centre and radius of the circle, and apply the formulæ when the curve is an ellipse.

23. Show that two normals ultimately intersect at the centre of the circle of curvature.

24. Find the evolute of a cycloid.

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MIDSUMMER EXAMINATION—SESSION 1835–36.

FACULTY OF ARTS.

NATURAL PHILOSOPHY.

EXPERIMENTAL AND MATHEMATICAL COURSE.

1. Determine the distance of the focus of a concave spherical reflector for a luminous point situated on the axis, in terms of the radius of the sphere and distance of the luminous point from the surface of the mirror. Give the *discussion* of the general equation.

2. Determine the focal length of a double convex lens of crown-glass for a given luminous point situated on the axis, in terms of the radii of the two surfaces and the index of refraction. Give the *discussion* of the general equation.

3. Describe the manner in which a prism of flint-glass may be made to achromatize a prism of crown-glass.

4. Apply the principle in the last exercise to the construction of an achromatic object-glass.

5. If each electric molecule act on each magnetic molecule of an indefinitely-small needle so as to deflect it, it is required to demonstrate that a conductor of voltaic electricity of infinite length will deflect a needle, with forces varying as its inverse distance from the conductor.

6. If a dipping-needle be placed in two rectangular planes, it is required to demonstrate that the sum of the squares of the cotangents of the dip in each plane, is equal to the square of the cotanget of the dip in the magnetic meridian.

7. Given the position of a luminous point with regard to two plane mirrors placed at right angles to one another, and also the position of the eye, it is required to determine the direction in which it will be seen after two reflections.

8. If a cylindrical vessel, partly filled with water, be made to revolve uniformly round its axis, it is required to demonstrate that its surface will assume the form of a parabolic conoid.

9. Given two lights, A, B, whose intensities are as i^2, I^2, and the distance between them a, required an expression for the distance of a point from one of them which receives the least quantity of light.

10. If D be the diameter of a cylindrical vessel filled with water, d the diameter of a small orifice in the side of the vessel, and h the height of the water above the centre of the orifice, it is required to investigate a formula for the time in which the surface will sink to the height of h' above the same point.

WILLIAM RITCHIE,
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University of London.

MIDSUMMMER EXAMINATION.—SESSION 1835-36.

FACULTY OF ARTS.

NATURAL PHILOSOPHY.

EXPERIMENTAL AND PHYSICAL COURSE.

(*Afternoon.*)

1. Describe a condensing steam-engine, and state the difference between it and a high-pressure engine.

2. What advantage is gained by cutting off the steam before the piston has performed the whole of its journey, and allowing the elasticity of the imprisoned steam to complete the stroke?

3. If a hollow cube be filled with water, what is the absolute pressure against one of the sides, the side of the square being one foot?

4. If a hollow sphere, whose diameter is one foot, be filled with water, what is the absolute pressure against the concave surface?

5. Describe the phenomenon called the *mirage*, and explain the cause of it.

6. Investigate the centre of gravity of a triangle, and deduce the practical rule for determining it.

7. Describe the centre of pressure, and find its position in the case of water pressing against the sides of a lock.

8. State the conditions of stability of a vessel; define the terms *centre of gravity* of the vessel, *centre of buoyancy* and *metacentre;* and point out the relative positions of these points in a case of stable equilibrium.

9. Describe *Mariotte's law*, and state the exceptions to it, if any exist.

10. Why does the sun and moon appear larger near the horizon than in the meridian?

11. If the sun be perfectly spherical, what is its apparent figure near the horizon; and, if it do not appear circular, assign the reason.

12. State the general laws of the magnetism of the earth, and the influence of the local action of the iron in a vessel on the ship's compass.

University of London.

MIDSUMMER EXAMINATION—SESSION 1835–36.

FACULTY OF ARTS.

NATURAL PHILOSOPHY.

EXPERIMENTAL AND PHYSICAL COURSE.

(Forenoon.)

1. Write a short popular lecture on the nature and elementary properties of polarized light.

2. Write a short popular lecture on the eye, and describe the uses of its several parts.

3. Give a clear view of the principle of achromatism, and apply it to the construction of an achromatic object-glass.

4. If the radius of a concave reflector be 6 feet, what is the distance of the focus from the mirror for a luminous point situated in the axis, and 10 feet from the mirror?

5. If a ray of homogeneous light suffer *total* reflection internally in a transparent medium, when the ray makes an angle of 50°, with a perpendicular to the surface, required the index of refraction for that medium.

6. State a few of the more striking analogies between light and sound, and give your reasons for adopting the undulatory theory of light.

7. Describe the kaleidoscope, and apply the principle on which it is founded to explain the reason why a small object appears multiplied *six* times, when the angle made by the reflectors is 60°.

8. Here is a Hadley's quadrant and an artificial horizon, and a circle of paper on the wall, representing the sun at noon on the 17th of June, required the latitude of the place of observation?

9. Here is a hydrostatic balance, &c., determine the specific gravity of this coin, and determine how much pure gold and pure silver, by weight, is contained in it, the specific gravity of gold being 19·25, and that of silver 10·47.

10. If a barometer stand at the height of 30·15 inches at the foot of a mountain, and 29·34 at the top, what is the height of the mountain, supposing the temperature of the air the same at both stations?

11. If a small hole be made in a cylindrical vessel filled with water, so that the whole is emptied in twelve hours, it is required to ascertain the spaces through which the surface of the liquid will descend every hour, the height of the cylinder being 10 feet?

WILLIAM RITCHIE,

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MIDSUMMER EXAMINATION.—SESSION 1835-36.

NATURAL PHILOSOPHY.

EXPERIMENTAL AND MATHEMATICAL COURSE.

(*Afternoon.*)

1. Suppose an ice-berg floating in the Arctic ocean was observed to have 10,000 cubic feet above water, required the number of cubic feet below the surface of the water, and its whole weight, the specific gravity of ice being ·92, and sea-water 1·02.

2. Describe the method of finding the solidity of an irregular solid by the principles of hydrostatics.

3. A pendulum-clock, which goes accurately at the foot of a mountain, was found to lose twenty seconds in twenty-four hours when carried to the top: required the height of the mountain?

4. An invariable pendulum, which vibrated seventy times in a minute at London, was carried to another place, where it vibrated sixty-four times in a minute: required the length of the *seconds'* pendulum at the latter place?

5. Demonstrate that the times required by heavy bodies descending down similar curves, and similarly situated with respect to the horizon, are as the square roots of the lengths of the curves.

6. Demonstrate that the diminution of gravity at the equator, arising from the earth's rotation, is, to the diminution at any

other place, as the square of radius to the square of the cosine of the latitude, supposing the earth to be a perfect sphere.

7. If bodies revolve in equal circles in unequal periods, it is required to demonstrate that their centrifugal forces are as the squares of the velocities.

8. If a body revolve round another as its centre of attraction, it is required to demonstrate that the radius vector will describe areas proportional to the times.

9. If H be the height of the water in a canal above the bottom of one of the locks, A the area of the lock, and a the area of a small orifice through which the water enters, and m the coefficient or the contracted vein: required a formula for the time of filling the lock to a height represented by h.

10. If the cylinder of a condensing syringe, whose diameter is one inch, and weight five pounds, be suspended by the piston-rod, how far will the piston be drawn out, the length of the column of imprisoned air being four inches, and the height of the barometer at the time of the experiment thirty inches?

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SECOND EXAMINATION—JUNE 24, 1836.

LAW CLASS.

1. Give the different steps in a civil action.

2. State the different kinds of goods which are privileged from distress; and point out the extent of the privilege.

3. What are the *direct*, and what the *indirect* modes of recovering land?

4. Point out the grand distinction between oral slander and libel; and state what *words* are actionable of themselves.

5. Give the different fundamental rules of pleading.

6. What do you mean by the pleading *de injuria*? by the terms *profert*, *oyer*, *son assault demesne*, *duplicity*, and *surplusage*? Give the names of the different stages in pleading.

7. State the alterations produced by the new rules in the pleadings in actions *on the case*.

8. What is now the law of variances?

9. What witnesses are incompetent in a court of law?

10. What is the rule of evidence respecting the testimony of husband and wife?

11. State the new provision made by the legislature regarding witnesses formerly incompetent.

12. What are the new writs by which proceedings are commenced? from what statute have they originated?

13. Explain the law of bail

(*a*) above,

(*b*) to the action.

14. Who are privileged from arrest?

15. What is the jury process in civil actions?

16. Give the different kinds of *error*; and trace the proceedings in error.

17. What are the writs of execution? and which is considered as a satisfaction?

18. How are the bail to the action discharged?

19. What are the proceedings against bail?

20. Give the decisions of the courts in Isaacs *v.* Farrer, 2. C. M. and R.; K. *v.* All Saints, Worcester, 6. M. and S. 194; K. *v.* Smith, 8. B. and C. 341; Marshall *v.* Rutton, 8. T. R. 545; Fosters *v.* Lawson, 3. Bing. 452; Douglas *v.* Forrest, 4. Bing. 686.

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