CALENDAR

AND

EXAMINATION PAPERS.

Palhousie College and Anibersity,

OF

HALIFAX, NOVA SCOTIA.

SESSION 1870-71.

HALIFAX: PRINTED FOR THE UNIVERSITY BY "NOVA SCOTIA PRINTING COMPANY.' 1870.



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Anibersity Calendar, 1870-71. 1870. Oct. 21.|Fr. Meeting of Board of Governors. 26. W. Opening of Winter Session. Matriculation Examination and Examination for Scholarships. 27. Th. Supplementary Examinations. Meeting of Senate. Registration and Matriculation. 28. Fr. Classes opened, and Class Tickets issued. 31. Mo. Nov. 1. Tu. Meeting of Convocation at 11 o'clock, a. m. Addresses by Principal Ross and Professor Macdonald. Anniversary Day (College opened in 1863). Final Matriculation 9. W. and Supplementary Examinations. Meeting of Senate, 1 P. M. Christmas Vacation begins. 6. Tu. 23. Fr. Dec. 25. Su. Christmas Day. 1871. Jan. 4.. W. College re-opens. Meeting of Senate, 1 P. M. 10. Tu. 16. Mo. College Established, 1823. Meeting of Board of Governors. Meeting of Senate, 1 P. M. Ash Wednesday. *Holiday*. 27. Fr. 7. Tu. Feb. 22. W. March 7. Tu. Meeting of Senate, 1 P. M. 16. Th. Essays for the Sir Wm. Young Prize, and Grant Prize to be given in. April 4. Tu. Meeting of Senate, 1 P. M. 6. Th. Lectures close. Good Friday. Holiday. 7. Fr. 10. Mo. Easter Monday. 12. W. Examinations in Latin and in Roman History. 13. Th. Examinations in Greek. 14. Fr. Examinations in Mathematics. 17. Mo. Natural Philosophy and Rhetoric. 66 66 18. Tn. Chemistry. 66 Logic, Metaphysics, History. 19. W. 20. Th. Examinations in Ethics. 21. Fr. Meeting of Board of Governors. Examinations in French and German 24. Mo. 25. Tu. Meeting of Senate, 10 A. M. Results of Examinations declared. Meeting of Convocation at 11 o'clock, A. M. Winter Session 26. W. ends. May 1. Mo. 2. Tu. Meeting of Senate. Summer Session opens. Lectures begin in Faculty of Arts. 23. Tu. Foundation Stone of College Building laid in 1820. Queen's Birthday. *Holiday*. Meeting of Senate, 1 P. M. Accession of Queen Victoria. 24. W. 6. Tu. June 20. Tu. 21. W. Halifax settled, 1749. Holiday. Meeting of Board of Governors. 23. Fr. Lectures close in Faculty of Arts. 26. Mo. 27. Tu. 28. W. Examinations in Arts. **Examinations** continued Summer Session of Arts Faculty ends. July Dominion Day. Holiday. 1. Sa.



BOARD OF GOVERNORS.

HON. SIR WILLIAM YOUNG, KNIGHT, Chief Justice of Nova SCOTIA, Chairman.

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FACULTY OF ARTS.

VERY REV. PRINCIPAL ROSS, D. D., Professor of Ethics and Political Economy.

REV. WILLIAM LYALL, LL. D., Professor of Psychology and Metaphysics.

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JOHN JOHNSON, M. A., Professor of Classics.

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JAMES DEMILL, M. A., Professor of History and Rhetoric.

Tutor in Modern Languages. JAMES LIECHTI, ESO.

FACULTY OF MEDICINE.

VERY REV. JAMES Ross, D. D., Principal (ex officio), Matriculation Examiner.

WILLIAM J. ALMON, M. D., President.

ALEXANDER P. REID, M. D., Dean.

WILLIAM J. ALMON, M. D., and ALEXANDER G. HATTIE, M. D., Lecturers on Obstetrics.

PROF. GEORGE LAWSON, Ph. D., LL. D., Lecturer on Chemistry.

ALEXANDER P. REID, M. D., L. R. C. S., Edin., Lecturer on Institutes of Medicine.

EDWARD FARRELL, M. D., Lecturer on Anatomy.

ALFRED H. WOODILL, M. D., Lecturer on Materia Medica.

THOMAS TRENAMAN, M. D., and J. F. BLACK, M. D., Demonstrators of Anatomy.

THOMAS R. ALMON, M. D., Prosector to Chair of Anatomy.

Janitor of the College-JOHN WILSON.

FACULTY OF ARTS.

VERY REV. PRINCIPAL HOSS, D. D., P. Professor of Ethics and Political Sconcery

('MARLES MACDONALD, M. A., Professor Mathematics

JOHN JOHNSON, M. A.

GRORDE LAWSON, Ph. D., Lds. D., Professor of Charactery and Macalon

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FACULTY OF MEDICINE.

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WILLIAN J. ALMON, M. D., and ALEXANDER G. MATTIE, M. D., PROP. GEOROF LAWSON, Ph. D. LL. D., Lectures on Chardeler, Lectures on Chardeler, ALEXANDER P. RED., M. D. L. & C.S., Edin Georgen en Institutes of Moldan.

> EDWARD FARRER, M. D., Louise on Analout

ALTINED H. WOOTHLE, M. D., Logarm on Materia Medica

THORAS TREVINAN, M. D., and J. F. BLACK, M. D.,

THOMAS R. ALVON, M. D.,

mailar of the College-Jonn Wirgo

faculty of Arts.

§ 1.-SESSIONS.

In each Academic Year there are two Sessions :---the first, a Winter Session, and the second a Summer Session.

The Winter Session for 1870-71 will commence on Wednesday, October 26th, 1870, and end on Wednesday, April 26th, 1871.

The Summer Session will commence on Monday, May 1st, 1871, and end on June 28th, 1871.

§ II.-ADMISSION OF STUDENTS.

Applicants for admission will present themselves at the College on the opening day of the Winter Session, at 11 A. M. Students may enter, either

1st, as *Undergraduates*, with the intention of applying for the Degree of B. A. at the end of the course; or

2nd, as General Students.

Students entering as Undergraduates of the First Year are required to pass the Matriculation Examination at the opening of the Winter Session, and to take the classes prescribed for the four years' course.

Students may also enter as Undergraduates of the Second Year, and take the three years' course by complying with the conditions specified under § IV.

General Students are not required to pass any preliminary examination, and may attend any classes they choose.

No person can be admitted as an Undergraduate after ten days from the opening of the Session, without the special permission of the Senate. General Students will be admitted at any time during the Session.

Undergraduates from other Universities will be admitted to similar standing in this University, on producing satisfactory certificates, if, on examination, they be found qualified to enter the classes proper to their year.

§ III.-MATRICULATION EXAMINATIONS

FOR THE FIRST YEAR.

The subjects of examination for entrance into the First Year, are :--

I. In Classics.

Latin Grammar, Greek Grammar, one easy Latin, and one easy Greek Author.

The following Authors are recommended :

Latin

Cæsar, one book; Virgil, one book; Cicero, two Orations; Horace, one book of Odes.

Greek.

Xenophon, one book; Homer, one book; Lucian's Select Dialogues; New Testament, one Gospel.

II. In Mathematics.

Arithmetic; Euclid's Elements, Book I.; Algebra to the end of Division.

III. In English. comparison first poised? montant? of ?

Grammar; History; Geography; Composition.

FOR THE SECOND YEAR.

In order to enter as an Undergraduate of the Second Year, a Student must pass an examination,—

1. In the *Classics* of the first year as specified in § XII. or their equivalents.

2. In the *Mathematics* of the first year as specified in § XII. or their equivalents.

3. In English Grammar, English History, Geography and Composition.

§ IV.-COURSE OF STUDY.

The Undergraduate course extends over, either

1. Four Winter Sessions, or

2. The Winter and Summer Sessions of two Academic years, and an additional Winter Session.

In order to enter upon the latter course, Students must be able to pass the Entrance Examination of the second year, and must take the classes prescribed by the Senate in the Summer Session.

I. WINTER SESSION.

FIRST YEAR.

Classics, Mathematics, Rhetoric.

SECOND YEAR.

similar standing in this

Classics, Mathematics, Chemistry, Logic and Psychology.

THIRD YEAR.

Classics, Metaphysics, Modern Languages, Natural Philosophy, Chemistry. Mathematics and Practical Chemistry optional.

FOURTH YEAR.

Ethics and Political Economy, History, Modern Languages, Natural Philosophy (Experimental Physics), and either Classics or Mathematics.

In Modern Languages, Undergraduates may select either French or German as part of their course, but they must take the same language in both years.

II. SUMMER SESSION.

Classes will be opened for instruction in the following subjects :

Classics.

Astronomy. Applied Logic. Optics. Botany. History of Modern Literature. Modern Languages.

§ V.-FEES.

The Fee to each Professor, whose class or classes a Student enters, is six dollars for the Winter Session, and four dollars for the Summer Session, or eight dollars for both. Any Undergraduate who has paid fees twice, either to the Professor of Classics or to the Professor of Mathematics, may attend the classes of such Professor during the remainder of his Undergraduate course without paying an additional fee.

General Students pay a fee for every class they attend.

Experimental Chemistry is an optional class, the fee for which is *six dollars*. Students taking this class are required to provide their own apparatus.

In addition to Class Fees, there is a Matriculation Fee of two dollars, payable by Undergraduates at their first entrance. General Students pay an annual Registration Fee of one dollar.

Both Undergraduates and General Students are required at the beginning of each Session to pay a fee of *one dollar*, which entitles to the use of the Library for the year.

Matriculation or Registration Tickets and Class Tickets must be taken out on the first day of Lectures, as no Student is allowed to enter a Class without them.

The fees of Undergraduates who take the complete course in this University are as follows :----

Classes	of	First Ye	ear,	Libr	ary an	d N	Ia	tr	ic	ul	ati	on	E	ree	s.		 			\$21	1
66		Second	ee .	and	Libra	ry.														. 25	5
66		Third	66		66						• •									. 18	3
		Fourth	66		66												 	 		. 18	3

§ VI.-GRADUATION IN ARTS.

DEGREE OF B. A.

The Degree of B. A. may be obtained by attending the prescribed courses of Lectures, extending over Four Winter Sessions, or three Winter and two Summer Sessions, and by passing the following examinations, the Candidate maintaining throughout the period a good moral character :—

IN THE FOUR YEARS' COURSE.

1. Matriculation Examination at entrance.

2. Examination at the close of the first session, in Classics, Mathematics, Logic and Psychology, and Chemistry.

3. Examination at the close of the second session in Classics, Mathematics, Rhetoric, and Chemistry.

4. Examination at the close of the third session, in Classics, Natural Philosophy, Modern Languages, Metaphysics and Chemistry.

5. Final Examination for Degree, at the Close of the fourth session or subsequently, in Modern Languages, Ethics, Political Economy, History, Natural Philosophy, and either Classics or Mathematics, at the option of the Candidate.

IN THE THREE YEARS' COURSE.

The Examinations specified above, except No. 2, and the Examinations at the close of each Summer Session in the subjects of the Session.

In no case shall a Student be entitled to a Degree who has not passed in every subject of the course.

The Fee for Diploma is *five dollars*, payable before the commencement of the Final Examinations.

DEGREE OF M. A.

Bachelors of Arts of at least three years' standing, maintaining meanwhile a good reputation, shall be entitled to the Degree of M. A., on producing an approved Thesis on a literary, scientific, or professional subject.

Fee for Diploma, twenty dollars, except in case of those who entered as Undergraduates prior to 1869, who pay *five dollars*.

§ VII-REGULATIONS FOR EXAMINATIONS.

1. If an Undergraduate absent himself from any University Examination, except for such cause as may be held good by the Senate, he will lose his year.

2. If an Undergraduate fail to pass in any Examination, he will be allowed a Supplementary Examination on the first

Friday of the following Winter Session, on giving notice to the Secretary of the Senate; but failure in more than two subjects at the Sessional Examination will involve the loss of the year. N. B.—In the application of this rule, Classics and Mathematics will *each* be reckoned as two subjects.

3. In all cases where a Student presents himself for Supplementary Examination, except on the day mentioned in Rule 2nd, he will be required to pay a fine of *two dollars*.

4. Students are forbidden to bring any books or manuscripts, into the Examination Hall, unless by the direction of the Examiner, or to give or receive assistance at the Examinations. If a Student violate this rule, he will lose his Sessional Examination, and it shall be at the discretion of the Senate whether he be allowed a Supplementary Examination.

5. Students who pass the Examination in the several subjects of their respective years, are arranged in three classes, according to the merit of their answers in these subjects.

6. A position in the First or Second Class will be considered honorable.

§ VIII.-SCHOLARSHIPS.

1. HALIFAX SCHOOLS.

A scholarship entitling to free attendance on all the classes of the Undergraduate course, as long as the holder of it obtains a Certificate of Merit at the Sessional Examinations, is offered by the Professors for competition this year to the Pupils from the Halifax Schools; the competition to take place at the Matriculation Examination.

A Pupil competing for this scholarship must have attended the school from which he comes for a period of not less than one year immediately previous to the competition, and must present a certificate of attendance from the Principal of the School.

2. OPEN SCHOLARSHIP.

A scholarship of equal value, and to be held under the same conditions, will be offered *annually* for competition to all Undergraduates entering the first year.

No Student can hold more than one scholarship during the Session.

§ IX .- PRIZES AND CERTIFICATES OF MERIT.

THE GRANT PRIZE.

A Prize of \$20 is offered by the REV. G. M. GRANT, M. A., for the best Essay on "The Literature of the Nineteenth Century."

Competition is open to all Students of the years 1869-70 and 1870-71.

The Essays are to be sent in not later than 16th March, 1870, each signed with a motto, and accompanied by a sealed envelope, containing the name of the writer; and with the motto upon it.

THE SIR WILLIAM YOUNG PRIZES.

1. A Prize of \$20 for the best Essay on "The Function of Money."

The Essay to be given in to the Principal, with an accompanying sealed letter containing the name of the competitor, (each bearing a motto) not later than 16th March, 1871.

Open for competition to all Students in actual attendance during the session in the Faculty of Arts.

2. An annual Prize of \$20 in Elocution, open for competition to all Students of the first and second years. This prize cannot be held twice by the same Student.

NORTH BRITISH SOCIETY'S BURSARY.

A Bursary, of the annual value of \$60, has been founded in connexion with Dalhousie College, by the North British Society of Halifax, to be competed for at the Sessional Examinations of the Second Year's course, and held during the Third and Fourth Years' of the Undergraduate's course. Candidates must be Undergraduates who have completed two years of the Curriculum, and must be eligible at the proper age to be Members of the North British Society. The next competition will take place in April, 1872, at the Sessional Examinations.

CERTIFICATES OF MERIT.

Certificates of Merit of the First and Second Rank will be given to the Students who have obtained a first or second class standing in the aggregate of the branches of study proper to their year. N.B.—In computing points for these Certificates, French, German, and Experimental Physics will each count half as much as any other subject.

§ X.-ATTENDANCE AND CONDUCT.

1. All Undergraduates and General Students attending more classes than one, are required to provide themselves with caps and gowns, and wear them in going to and from the College. Gowns are to be worn at Lectures, and at all meetings of the University.

2. Attendance upon all the classes of the year, except those announced as optional, shall be imperative on all Undergraduates.

3. A Class Book will be kept by each Professor, in which the presence or absence of Students will be carefully noted.

4. Professors will mark the presence or absence of Students immediately before commencing the exercises of the class, and will note as absent those who enter thereafter, unless satisfactory reasons be assigned.

5. Absence or tardiness without sufficient excuse, and inattention or disorder in the Class Room, if persisted in after due admonition by the Professor, or the discipline proper to the class, will be reported to the Senate.

6. The amount of absence or tardiness which shall disqualify for the keeping of a Session will be determined by the Senate.

7. Injuries to the building or furniture will be repaired at the expense of the party by whom they have been caused, and such other penalty will be imposed as the Senate may think proper.

8. While in the College, or going to or from it, Students must conduct themselves in an orderly manner. Any Professor observing any improper conduct in a Student will admonish him, and if necessary report to the Principal.

9. When a Student is brought before the Senate and convicted of a violation of any of these rules, the Senate may reprimand privately or in the presence of the Students, or report to the parents or guardians, or disqualify for competing for Prizes or Certificate of Merit, or report to the Governors for suspension or expulsion.

10. Students not residing with parents or guardians must report to the Principal their places of residence within one week after their entering College, and the Principal may disallow such residence if he see good cause. Any change of residence must also be reported.

11. It is expected that every Student will attend divine service on Sunday, in one of the city churches or chapels.

§ XI.-THE LIBRARY.

Through the liberality of a number of the friends of the College, a library has been formed, which consists of a careful selection of the most useful works in each department of study embraced in the University course. There are likewise a few works in general literature. The library embraces in all upwards of 1100 volumes. All students are entitled to the use of the Library, on payment of the annual fee of one dollar.

§ XII.-COURSE OF STUDIES. WINTER SESSION.

CLASSICS 1870-1.

Professor JOHN JOHNSON, M. A.

OBDINARY COURSE.-FIRST YEAR.

LATIN.—Cicero: First oration against Catiline. Virgil, Æneid, Book VIII.

GREEK .- Lucian : Timon.

COMPOSITION.—Principia Latina, Part IV. ANCIENT HISTORY.—History of Rome, (Liddell's).

SECOND YEAR.

LATIN.- Livy : Book I, chap. 1-21. Horace : Odes, Book I. GREEK.-Herodotus : Book I, §§ 95-130. Homer : Book IX. Composition.-Principia Latina, Part IV. Initia Græca, Part III. ANCIENT HISTORY.-History of Rome, (Liddell's).

THIRD YEAR.

LATIN.—Horace: Satires, Book I, 3, 4, 5, 6, 9. Terence: Adelphi. GREEK.—Euripides: Medea. COMPOSITION.—Principia Latina, Part V. Arnold's Greek Composition.

FOURTH YEAR.

LATIN.—Tacitus : Annals, Book I. Juvenal : Satires, III, X. GREEK.—Demosthenes : Philippics, I, III. Plato : Apologia Socratis. COMPOSITION.—Principia Latina, Part V.

ADDITIONAL COURSE.

(For those competing for Prizes and Certificates of Merit.)

FIRRT YEAR.

LATIN.—Cicero: Fourth Oration against Catiline. GREEK.—Demosthenes: First Olynthiac.

SECOND YEAR.

LATIN.—Horace: Odes, Book IV. GREEK.—Herodotus: Book I, §§ 178-200.

THIRD YEAR.

LATIN.—Horace: Epistles, Book I, Ars Poetica. Virgil: Georgics, Book IV. GREEK.—Æschylus: Prometheus Vinctus. LITERATURE.—Roman Classical Literature, (Brown's), selected course. Theatre of the Greeks, (Donaldson's).

FOURTH YEAR.

LATIN.—Cicero: Tusculan Questions, Book I. GREEK.—Thucydides: Book II. Composition.—Greek Prose.

ANCIENT HISTORY .- Merivale's History of the Romans, Vol. III. Chaps. 29 to end, and Vol. IV.

LITERATURE.—Greek Classical Literature, (Brown's), selected course. PHILOLOGY.—Müller's Science of Language, Vol. I, Lectures II-VIII. Vol. II, Lectures IV-VII, (all inclusive).

Clarke's Comparative Philology.

MATHEMATICS.

Professor CHARLES MACDONALD, M. A.

FIRST YEAR.

ALGEBRA.-Fractions, Equations of the First and Second Degrees, Proportion, Progressions.

GEOMETRY .--- First Book of Euclid, revised; Second, Third, Fourth Book, Definitions of the Fifth Book and the Sixth Book of Euclid, with deductions and applications.

TRIGONOMETRY .- Solution of Plane Triangles.

SECOND YEAR.

ALGEBRA.-Binomial Theorem, Permutations and Combinations, Theory of Logarithms, Compound Interest, Probabilities, Life Assurance, &c.

GEOMETRY .- Eleventh Book of Euclid, 21 Propositions, Geometrical Deductions, Mensuration.

TRIGONOMETRY .- Analytical Plane, with application to Surveying and Navigation.

THIRD YEAR.

Spherical Trignometry with application to Astronomy; DeMoivre's Theorem with Angular Analysis.

Conic Sections algebraically treated; Differentiation.

FOURTH YEAR.

Conic Sections continued; Differential and Integral Calculus, with applition to Mechanics.

BOOKS RECOMMENDED.

* Young's Elementary Course of Mathematics. Cassell's or Potts' Euclid.

Todhunter's, Colenzo's, or Wood's Algebra.

Todhunter's, Colenso's, Snowball's, or Hymer's Trigonometry. Puckle's or Todhunter's Conic Sections.

Hall's, or Hind's Differential and Integral Calculus.

Galbraith's and Haughton's Mechanics; Potter's Mechanics; Galbraith and Haughton's, Webster's, or Miller's Hydrostatics. The Books in Weale's Series on Trigonometry and Conic Sections.†

ETHICS AND POLITICAL ECONOMY.

ETHTCS.-(Fourth Year.)-Text Books: Stewart's Active and Moral Powers of Man. Whewell's Elements of Morality.

POLITICAL ECONOMY.- (Fourth Year.)-Text Books: Mill's Political Economy. Wayland's Political Economy.

^{*} Suffice for the course, except Geometry. + For Students of the First Year, the Mathematical Books used in the Schools are for the most part sufficient.

The Books in Weale's Series are mentioned principally for their cheapness.

Professor......REV. WM. LYALL, LL. D.

LOGIC AND PSYCHOLOGY.—(Second Year.)—Texts Books: Sir Williams Hamilton's Lectures on Logic. Prof. Lyall's "Intellect, the Emotions, and the Moral Nature."

METAPHYSICS AND ESTHETICS.—(*Third Year.*)—*Text Books:* Sir William Hamilton's Lecture's on Metaphysics. Lyall's Intellect, the Emotions and Moral Nature. Mansel's Metaphysics. Lewes' Biographical History of Philosophy. Cousin on The Beautiful. Alison's Essay on the Nature and Principles of Taste.

CHEMISTRY.

Professor.....GEORGE LAWSON, PH. D., LL. D.

JUNIOR CHEMISTRY.-(Second Year.)-Text Books: Chambers's Chemistry by Macadam.

SENIOR CHEMISTRY.-(Third Year.)-Text Book: Fownes's Chemistry, (or Gregory's).

PRACTICAL CHEMISTRY.—(Third Year.)—Laboratory Books: Fresenius's Qualitative and Quantitative Analysis.

NATURAL PHILOSOPHY.

EXPERIMENTAL PHYSICS.

MATHEMATICAL PHYSICS.

Professor...... CHARLES MACDONALD, M. A.

(*Third Year.*)—*Text Books*: Galbraith's and Haughton's Mechanics. Parkinson's Elementary Mechanics. Galbraith and Haughton's Hydrostatics.

HISTORY AND RHETORIC.

Professor JAMES DEMILL, M. A.

RHETORIC.—(*First Year.*)—*Text Books*: Whateley's Elements of Rhetoric. Campbell's Philosophy of Rhetoric. Latham's Handbook of the English Language. Angus's English Language. Porter's Elocution.

HIGHORE: Campions I mospiny of Interfore Latitude English Language. Angus's English Language. Porter's Elocution. HISTORY.—(Fourth Year.)—Text Books: Gibbon's Decline and Fall of the Roman Empire. Hume's History of England. History of France. Hallam's Middle Ages. Sismondi's Italian Republics. Taylor's Manual of Modern History.

BOOKS RECOMMENDED.

Guizot's History of Civilization; Michelet's History of France; Hallam's Constitutional History.

MODERN LANGUAGES.

Tutor.....JAMES LIECHTI, ESQ.

FRENCH.—(Third Year.)—Pujol's Grammar, (first part)—A comedy of Scribe.

GERMAN.—(Third Year.)—Otto's Conversation Grammar.—Adler's Reader.

FRENCH.—(Fourth Year.)—Pujol's Grammar, (second part)—A Comedy of Scribe, or Moliere. GERMAN.—(Fourth Year.)—Otto's Conversation Grammar.—A Play of Schiller, or Goethe.

SUMMER SESSION.

CLASSICS.

Professor.....JOHN JOHNSON, M. A.

LATIN.—Horace, Odes, Book IV. GREEK.—Homer, Iliad, Book XVIII.

MATHEMATICS.

Professor-CHARLES MACDONALD, M. A.

ASTRONOMY.-Text Book :- Loomis's Astronomy.

EXPERIMENTAL PHYSICS.

Professor......VERY REV. PRINCIPAL Ross, D. D. PNEUMATICS.—Text Book :-Lardner's Handbook.

LOGIC.

Professor......REV. WM. LYALL, LL. D. Text Books .:- Those used in the Winter Session.

HISTORY OF MODERN LITERATURE.

Professor.....JAMES DEMILL, M. A.

Text Books:--Hallam's Introduction to the Literature of Europe. Sismondi's Literature of Southern Europe.

BOTANY.

Professor...... GEORGE LAWSON, PH. D., LL. D.,

Text Books :--Gray's "How Plants Grow." Balfour's Outlines. Field Book :--Gray's Manual of Botany of the Northern States.

MODERN LANGUAGES.

Tutor.....JAMES LIECHTI, ESQ.

FRENCH AND GERMAN.-Text Books: Those used in the Winter Session.

Hours.	FIRST YEAR.	SECOND YEAR.	THIRD YEAR.	FOURTH YEAR.
9—10.			French-Tues., Thurs.	Classics—Mon., Wed. German—Fri.
10—11.	Rhetoric— Daily.	Mathematics— Daily.	Classics— Daily.	Ethics— Daily.
11—12.	Mathematics- Daily.	Classics— Daily.	Metaphysics— Mon., Wed., Friday,	History— Daily.
12—1.	Classics— Tu., Wed., Th., Fr. Greek and Roman Hist.— Monday.	Greek and Roman Hist.— Monday,	Mathematical Physics Mon., Wed., Fri. Experimental Physics Tuesday, Thursday.	Experimental Physics— Tuesday, Thursday.
1—2.	and a strong		Mathematics— Mon., Wed., Fri.	Mathematics- Tuesday, Thursday,
2-3.	and a second sec	Chemistry— Daily.	Chemistry— Daiły.	
3—4.		Logic— Daily.	German— Tuesday.	French— Monday, Thursday.

TIME TABLE.-Winter Session, 1870-71.

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Prizes and Certificates of Merit, 1870.

UNIVERSITY PRIZES.

FOUTH YEAR.

CLASSICS	. Hugh M. Scott.
ETHICS	.Hugh M. Scott.
HISTORY	. Walter M. Thorburn.
MODERN LANGUAGES	. Hugh M. Scott.

THIRD YEAR.

CLASSICS	James G. McGregor.
METAPHYSICS	Ernest S. Bayne.
NATURAL PHILOSOPHY	James G. McGregor.
CHEMISTRY	Alex. G. Russell.

SECOND YEAR.

CLASSICS	William P. Archibald.
MATHEMATICS	Ephraim Scott.
PSYCHOLOGY	Willliam P. Archibald.
CHEMISTRY	Ephraim Scott.

FIRST YEAR.

CLASSICSCl	narles Macdonald.
MATHEMATICSAl	ex. H. McKay.
RHETORICAl	ex. H. McKay.

CERTIFICATES OF GENERAL MERIT.

OF THE FIRST CLASS:-Fourth Year.-Hugh M. Scott, Walter M. Thorburn; Third Year.-James G. McGregor, Alex. G. Russell; Second Year.-William P. Archibald, Ephraim Scott; First Year.-

David F. Creelman, Charles Macdonald, Alex. H. McKay. OF THE SECOND CLASS:—Fourth Year.—Andrew W. Lindsay; Third Year.—Ernest S. Bayne; Second Year.—Hugh M. McKenzie, Arthur J. Trueman.

NORTH BRITISH SOCIETY'S BURSARY.

The North British Society's Bursary, of the annual value of \$60, was assigned to Ephraim Scott.

YOUNG PRIZES.

The Young Prize of \$20 for the best Essay on "The Relations of Capital and Labour," was assigned to Walter M. Thorburn. The Young Prize of \$20 for Elocution, open for competition to all

Students, was awarded to Duncan C. Fraser.

For the Essay second in merit, in competition for the Young Prize, Rev. G. M. Grant offered a Prize of \$10, which was gained by Hugh M. Scott.

Examinations, 1869-7C.

SCHOLARSHIP EXAMINATIONS, OCTOBER, 1869.

The Scholarship offered for Competition to Students entering as Undergraduates, was gained by

Charles D. Macdonald. Halifax Schools' Scholarships were awarded to

Bruce A. Lawson and Henry Macdonald.

UNIVERSITY EXAMINATIONS.

The following Undergraduates have passed the University Examinations in their several years :---

SUPPLEMENTARY EXAMINATIONS, OCT., 1869.

THIRD YEAR—Walter M. Thorburn. FIRST YEAR—J. Johnston Parker.

SESSIONAL EXAMINATIONS, APRIL, 1870.

FINAL EXAMINATIONS FOR DEGREE OF B. A.—Andrew W. Lindsay, Hugh M. Scott, Walter M. Thorburn, John Wallace.

THIRD YEAR.—Ernest S. Bayne, Jas. G. McGregor, Alex. G. Russell.
SECOND YEAR.—Wm. P. Archibald, Wm. T. Bruce, Charles W. Bryden, James Carmichael, William Cruickshank, Duncan C. Fraser, Adam Gunn, John Hunter, Hugh McKenzie, Alex. W. Pollok, Ephraim Scott, Hector Stramberg, Arthur I. Trueman.

FIRST YEAR.—David F. Creelman, John W. Forbes, Charles Harvey, Alfred Harvey, Bruce A. Lawson, John H. Logan, Charles D. Macdonald, Henry MacDonald, Alex. H. McKay, James A. McKeen.

STANDING OF THE STUDENTS IN THE SEVERAL SUBJECTS.

CLASSICS.

FOURTH YEAR.—(Examination for the Degree of B.A.)—Class 1.—Hugh M. Scott, Walter M. Thorburn.—Class 2.—Andrew W. Lindsay. Class 3.—John Wallace.

THIRD YEAR.—Class 1.—James G. McGregor. Class 2.—Ernest S. Bayne, Alex. G. Russell.

- SECOND YEAR.—Class 1.—Wm. P. Archibald. Class 2.—Alexander W. Pollock, Ephraim Scott. Class 3.—Wm. T. Bruce, Charles W. Bryden, James Carmichael, Wm. Cruickshank, Duncan Fraser, Adam Gunn, John Hunter, Hugh McKenzie, William Ross, Hector Stramberg, Arthur I. Trueman.
- Adam Guini, John Hunter, Hugh Herkenze, H. Hand Lossy and Stramberg, Arthur I. Trueman.
 FIRST YEAR.—Class 1.—Charles D. Macdonald, Alex. H. McKay. Class 2.—David F. Creelman, Charles Harvey. Class 3.—William Cameron, John Forbes, Alfred Harvey, Bruce A. Lawson, John H. Logan, Henry Macdonald, James McKeen, Archibald Sinclair, James W. Whitman.

MATHEMATICS.

SECOND YEAR.—Class 1.—Ephraim Scott, Arthur I. Trueman. Class 2.—John Hunter, Hugh McKenzie, Alex. W. Pollok. Class 3.— William P. Archibald, William T. Bruce, Charles W. Bryden, James Carmichael, William Cruickshank, Duncan C. Fraser, Adam Gunn, William Ross, Hector Stramberg.

FIRST YEAR.—Class 1.—David F. Creelman, Charles D. Macdonald, Alex. H. McXay, Class 2.—John W. Forbes, John H. Logan, James A. McKeen. Class 3.—John A. Boak, Charles Harvey, Alfred Harvey, Bruce A. Lawson, Henry Macdonald, Walter Mitchell, James W. Smith, John Wyllie, James W. Whitman.

ETHICS AND POLITICAL ECONOMY.

Class 1.—Andrew W. Lindsay, Hugh M. Scott, Walter M. Thorburn, John Wallace.

METAPHYSICS AND ESTHETICS.

Class 1.-Ernest S. Bavne, James G. McGregor, Alexander G. Russell.

LOGIC AND PSYCHOLOGY.

Class 1.—Wm. P. Archibald, Charles W. Bryden, Wm. Cruickshank, Hugh McKenzie, Ephraim Scott, Hector Stramberg, Arthur I. Trueman. Class 2.—James Carmichael, Duncan C. Fraser, Adam Gunn. Class 3.—William T. Bruce, John Hunter, J. Johnston Parker, Alex. W. Pollok, William Ross.

CHEMISTRY.

SENIOR.—Class 1.—James G. McGregor, Alex. G. Russell. Class 2.— Ernest S. Bayne, George A. Abbinett.

 JUNIOR.—Class 1.—William P. Archibald, Ephraim Scott. Class 2.—
 William T. Bruce, William Cruickshank, Duncan C. Fraser, Hugh
 McKenzie. Class 3.—Charles W. Bryden, James Carmichael, Adam Gunn, John Hunter, J. Johnston Parker, Alex. W. Pollok, Hector Stramberg, Arthur I. Trueman.

NATURAL PHILOSOPHY.

FOURTH YEAR.—(Experimental Physics.)—Class 1.—Andrew W. Lindsay, Hugh M. Scott. Class 2.—Walter M. Thorburn. Class 3.—John Wallace.

THIRD YEAR.—Mathematical and Experimental Physics.)—Class 1.—James G. McGregor. Class 2.—Alex. G. Russell. Class 3.—Ernest S. Bavne.

HISTORY.

Class 1.—Hugh M. Scott, Walter M. Thorburn. Class 3.—Andrew W. Lindsay, John Wallace.

RHETORIC.

Class 1.—David F. Creelman, Charles D. Macdonald, Alex. H. McKay. Class 2.—Charles Harvey, James A. McKeen. Class 3.—John A. Boak, John W. Forbes, Alfred Harvey, Bruce A. Lawson, John H. Logan, Henry Macdonald, Archibald Sinclair, James W. Smith.

FRENCH.

FOURTH YEAR.—Class 1.—Andrew W. Lindsay, Hugh M. Scott. Class – 2.—Walter M. Thorburn, John Wallace.

THIRD YEAR.—C. 138 1.—Ernest S. Bayne, James G. McGregor, Alex. G. Russell.

GERMAN.

FOURTH YEAR.—Class 1.—Andrew W. Lindsay, Hugh M. Scott. THIRD YEAR.—Class 1.—E. S. Bayne, J. G. McGregor, A. G. Russell.

Graduates and Undergraduates of the University, and General Students in Arts.

GRADUATES.

DEGREE OF M. A.

1869.

Chase, Henry Joseph...... Cornwallis.

1870.

DEGREE OF B. A.

1866.

Chase,	Henry .	١.	 	 				 Corr	iwallis.			
Shaw,	Robert.		 	 		 		 New	Perth,	Ρ.	E.	Island.

1867.

Burgess, Joshua C	Cornwallis.
Cameron, J. J	Georgetown, P. E. Island.
Lippincott, Aubrey	New Glasgow.
McDonald, John H	Cornwallis.
McNaughton, Samuel	East River, Pictou.
Ross, Alexander	Roger's Hill, Pictou.
Sedgwick, Robert	Middle Musquodoboit.
Smith, David H	Truro.
Smith, Edwin	Truro.

1868.

Carr, Arthur F	.St. Edward's, P. E. Island.
Christie, Thomas M	.Yarmouth.
Creighton, James G. A	.Halifax,
Forrest, James	.Halifax.
McKay, Kenneth	. Hardwood Hill, Pictou.
Simpson, Isaac S	. Merigomish, Pictou.

1869.

Annand, Joseph Gay's River, Picto	ou.
Bayne, Herbert APictou.	
Millar, Ebenezer DRoger's Hill, Pict	ou.
McKenzie, John J Green Hill, Pictor	1.
Sutherland, John M West River.	

1870.

Lindsay, Andrew	W	Halifax.
Scott, Hugh M		Sherbrooke.
Thorburn, Walte	r M	Bermuda.
Wallace, John		Shubenacadie.

UNDERGRADUATES, 1869-70.

FOURTH YEAR.

Lindsay, Andrew	W	. Halifax.
Scott, Hugh M		. Sherbrooke.
Thorburn, Walter	M	.Bermuda.
Wallace, John		. Shubenacadie.

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THIRD YEAR.

Bayne,	Erne	est S.			 			 .Pictou.
McGreg	ror, J	ames	G	 	 	 		 . Halifax.
Russell	Ale	x. G.		 	 	 		 . Truro.
Secton,	A. 1	Parker	• • • •	 	 			 . Halifax.

SECOND YEAR.

Archibald, William P	
Bruce, William TMiddle Musqu	uodoboit.
Bryden, Charles W Tatamagouch	ne.
Carmichael, JamesNew Glasgow	Walter 5.
Cruickshank, WilliamLower Musqu	iodoboit.
Fraser, Duncan C New Glasgow	. Isowiel .
Gunn, Adam East River, S	st. Mary's.
Hunter, John New Glasgow	manuff re
McKenzie, HughEarlton.	
Parker, J. Johnston Halifax.	
Pollok, Alex. WFrench River	, Pictou.
Ross, William East River, H	Pictou.
Scott, EphraimGore.	
Stramberg, HectorCape John, H	Pictou.
Trueman, Arthur IPoint deBute	, N. B.

FIRST YEAR.

Boak, John A	. Halifax.
Cameron, William	. Sutherland's River, Pictou.
Chisholm, Kenneth	Loch Lomond, C. B.
Creelman, David F	. Stewiacke.
Forbes, John W	East River, Pictou.
Harvey, Charles	.St. John's, Newfoundland.
Harvey, Alfred.	do do.
Lawson, Bruce A	. Halifax.
Logan, John H	. Upper Stewiacke.
Logan, Melville	. Halifax.
Macdonald, Charles D	.Pictou.
Macdonald, Henry	Halifax.
McKay, Alex. H	. Dalhousie, Pictou.
McKeen, James A	. Tatamagouche.
Mitchell, Walter	. Halifax.
Miller, J. Robinson	Baillie, N. B.
Sinclair, Archibald J	. Halifax.
Smith, James W	. Colchester, N. S.
Wyllie, John	. Colchester, N. S.

GENERAL STUDENTS.

NAME. Abbinett, George Almon, Andrew Boyd, John Bowles, Perry Cameron, Angus Cook, John Doull, Wm. M. Doull, Walter S. Duff, Kenneth Jordan, Lewis McGillivray, John Murray, George P. Murray, Thomas Richards, John Ritchie, John L. Whitman, Jas. W. Gordon, McMasters, McKinnon, Ross, Collins, Joseph Rennels, Claude

RESIDENCE. Halifax. Halifax. Five Islands. Cornwallis. East River, St. Mary's. Gay's River. Dutch Village, Halifax. Do Do Lunenburg. Halifax. New Glasgow. Mabou, C. B. North Bedeque, P.E.I. West River, Pictou. Halifax. 66 66

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CLASSES ATTENDED. Math., History, Chem. Mathematics. Class., Math., Rhetoric. Classics, Chem. Classics, Chem. Classics, Rhetoric. Classics, Rhetoric. Classics, Mathematics. Classics, Mathematics. Classics, Rhetoric. Classics, Rhetoric. Classics, Chem., Metaph. History, Chemistry. Classics, Math., Rhetoric. Classics, Math., Chemistry. Class., Math., Chemistry.

Books John A. Camera Willing Chicketer Kennel

Allering



faculty of Medicine.

THE PRINCIPAL, (ex officio.)

President	DR. W. J. ALMON.
Dean of the Faculty	DR. REID.
Lecturers	DR. GEORGE LAWSON.
	DR. W. J. ALMON.
	DR. A. G. HATTIE.
	DR. A. P. REID.
	DR. EDW. FARRELL.
	DR. A. H. WOODILL.
Demonstration	DR. T. TRENAMAN, and
Demonstrator's	DR. J. F. BLACK.
Prosector	DR. T. B. ALMON.

COURSE OF INSTRUCTION IN THE FACULTY OF MEDICINE.

The Lectures will be delivered in the University Buildings, Grand Parade, of the time of which due notice will be given.

I.—CHEMISTRY.

Lecturer..., Prof. GEORGE LAWSON, Ph. D., LL.D.

Lectures daily from 2 to 3, p.m., illustrated by diagrams, tables, apparatus, preparations, and demonstrations on the black board. Experiments daily.

Class Book .- Fownes' Manual.

II.-INSTITUTES OF MEDICINE.

Lecturer....ALEX. P. REID, M.D., L.R.C.S., Edin., L.C.P. & S., Ca., Surgeon to City Dispensary.

Lectures daily from 3 p.m., to 4 p.m., illustrated by microscopical preparations, plates and vivisections.

Class Books-Carpenter, Dalton, Todd & Bowman, Kirke & Paget.

The Lectures on Institutes of Medicine will embrace Histology, Physiology and General Pathology, the first two divisions of the subject receiving most attention. Towards the close of the course a general outline of Pathology will be given.

III.—ANATOMY.

Lecturer.... EDW. FARRELL, M.D., Surgeon to City Dispensary.

Lectures daily from 10 to 11 a. m., illustrated by the fresh subject, dried preparations, including skeletons, life-size plates, &c.

Class Books .- Gray, Wilson, Sharpey & Quain.

Every facility will be offered to students to become practically acquainted with Anatomy, under the Lecturer (Dr. Farrell), and the Demonstrators (Drs. Trenaman and Black).

PRACTICAL ANATOMY.

Demonstrators....T. TRENAMAN, M.D., and J. F. BLACK, M.D.

Rooms open from 4 to 6, and 8 to 10, p.m.

Fee for Practical Anatomy, \$4.

THOS. R. ALMON, M.D., Prosector to the Chair of Anatomy. Dr. Avery has presented to the Medical School a large and valuable series of Anatomical Plates.

IV.-MATERIA MEDICA.

Lecturer....ALFRED H. WOODILL, M.D., Physician to City Dispensary Lectures daily from 11 a.m., to 12 noon, illustrated by specimens

of the various pharmacological substances, microscopical objects, plates, &c.

Class Books.—Pereira by Farre, Stille, Dispensatories.

V.-OBSTETRICS.

Lecturers....WM. J. ALMON, M.D., Consulting Physician to City Hospital and Dispensary, and Physician to City Alms House, and

ALEX. G. HATTIE, M.D., Physician to City Hospital and Dispensary.

Lectures daily by one of the Lecturers, from 9 to 10, a.m. Class Books.—Bedford, Tyler Smith, Cazeaux, Churchill.

The Lectures will be illustrated by plates, mannikins, &c.; and senior students will have opportunities of becoming practically acquainted with the modes of treatment, &c., under direction of the Medical Officers connected with the Alms House and Dispensary, where a large number of cases occur.

VI.-BOTANY.

A short course of Lectures on Botany is usually given during the summer by Professor Lawson, in connection with which there are one or two excursions for field demonstration.

PUBLIC HOSPITALS, &c.

The PROVINCIAL and CITY HOSPITAL is visited daily at 12 M., by the Medical Officers, and may be attended by Students without payment of any fee. The CITY ALMS HOUSE, containing from 200 to 400 patients, half of whom are usually in the Hospital Wards, will likewise be available to Students. The best opportunities are here presented for clinical instruction, midwifery practice, and treatment of diseases; likewise for the observation of pathological appearances, which will be demonstrated by *post mortem* examinations.

CLINICAL LECTURES will be delivered at the Provincial and City Hospital and City Dispensary. Instructions will be given at the bedside, including physical diagnosis, and many opportunities afforded to Students to become familiar with the operations of minor surgery.

The HALIFAX DISPENSARY is carried on after the model of the DeMilt Dispensary, New York, being divided into three Departments, viz.: (1.) Surgical, including the Eye and Ear; (2.) Medical, including the Heart and Lungs; and (3.) Diseases of Women and Children. At this Institution, from 30 to 50 cases are treated daily. Here the Student can have the advantage of becoming practically acquainted with Pharmacy and Midwifery under the Officers of the Institution.

Certificates of attendance on the Hospitals and Dispensary will be given to those Students who attend regularly.

EXTRACTS FROM THE REGULATIONS.

1. Students desirous of attending the Lectures shall, at the commencement of each Session, enrol their names, age and residence, in the Register kept by the Dean, and each Student shall procure from him a ticket, for which he shall pay a fee of one dollar.

2. The Register shall be closed within one mouth after the commencement of each Session.

3. Each Lecturer shall deliver five lectures during the week, and each lecture shall be of one hour's duration.

4. Each Lecturer shall examine his class weekly on the subjects treated of in the preceding lectures, and such examination shall be considered a lecture.

5. A roll of names of the Students attending each class shall be called from time to time, in order that certificates of attendance may be given at the end of the Course.

6. The Matriculation examination is similar to that required by McGill University, Montreal, adopted under the Medical Act for Ontario, and recommended by the "Council of Medical Education and Registration" of Great Britain. Students desirous of passing it may present themselves to the Principal of the College at any time during the Session. Students, not matriculating, may attend the classes without passing this ex amination.

Any additional information may be obtained on application to Dr. REID, the Dean of the Faculty.

N.B.—Important changes are contemplated in the Medical Faculty. These will be embodied in the Faculty's Annual Announcement, which will be issued in course of a few weeks.

MEDICAL STUDENTS, 1870.

Sinclair, George L	.Halifax.
Flinn, W. P	. 'do.
Chisholm, J. J	Antigonish.
Almon, A	Halifax.
Barnaby, Gideon	Cornwallis.
Rousselle, A. Bruce	Halifax.
Ritchie, John L	. do.
Duff, William M	.Lunenburg.
Witt, Geo. E	Bridgetown, Annapolis.
Cameron, W. M	. Pictou.
Bethune, John	Loch Lomond, C. B.
McDonald, Hugh	.Mabou, do.
Hiltz, Charles W	Bridgetown, Annapolis.
McRae, William	Richmond, C. B.
Hunt, Lewis	Dartmouth. N. S.
Robertson, Hugh A	. Pictou.
Black, H. H	Halifax.
Power, G	do.
Eaton, F. E	Granville, Annapolis.
Beers, Alfred	.P. E. Island.
Cogswell, A	Halifax.
MacMillan, Finlay	do.
Ross, J. G	Sydney, C. B.
McLennan, A	Broad Cove. do.
Vaughan, Thos. J	Perth, Ontario.

DALHOUSIE COLLEGE AND UNIVERSITY, HALIFAX.

SESSIONAL EXAMINATIONS, 1870.

THURSDAY, APRIL 14TH.

GREEK :- HERODOTUS, BOOK I, SECS. 2, 3-65,-HOMER, BOOK VI.

SECOND YEAR.

PROFESSOR JOHNSON, M.A..... Examiner.

1. Translate :--

(a) 'Ο μέν δή οἱ ἐνθεάζων χρῷ τάδε· Πεισίστρατος δὲ συλλαβῶν τὸ χρηστήριον καὶ φὰς δέκεσθαι τὸ χρησθέν, ἐπῆγε τὴν στρατιήν. 'Αθηναῖοι δὲ οἱ ἐκ τοῦ ἀστεος πρὸς ἀριστον τετραμμένοι ἦσαν δὴ τηνικαῦτα· καὶ μετὰ τὸ ἀριστον μετεξέτεροι αὐτῶν, οἱ μὲν πρὸς κύβους οἱ δὲ πρὸς ὕπνον. οἱ δὲ ἀμφὶ Πεισίστρατον ἐσπεσόντες, τοὺς 'Αθηναίους τρέπουσι· φευγόντων δὲ τούτων, βουλὴν ἐνθαῦτα σοφωτάτην Πεισίστρατος ἐπιτεχνᾶται, ὅκως μήτε ἀλισθεῖεν ἔτι οἱ 'Αθηναῖοι, διεσκεδασμένοι τε εἶεν· ἀναβιβάσας τοὺς παῖδας ἐπι ὅπους προέπεμπε· οἰ δὲ καταλαμβάνοντες τοὺς φεύγοντας, ἕλεγον τὰ ἐντεταλμένα ὑπὸ Πεισιστράτου, θαρσέειν τε κελεύουτες καὶ ἀπιέναι, ἕκαστος ἐπί τὰ ἑωυτοῦ.

(b) δὶ δε μοι ἐπτά κασίγνητοι ἔσαν ἐν μεγάροισιν, δι μὲν πάντες ἰῷ κίον ἡματι * Αϊδος εἰσω· πάντας γὰρ κατἑπεφνε ποδάρκης δῖος ' Αχιλλεὺς, βουσὶν ἔπ' εἰλιπόδεσσι καὶ ἀργεννῆς δἰεσσιν. μητέρα δ', ἡ βασίλευεν ὑπὸ Πλάκῳ ὑληέσση, τὴν ἐπεῖ ὰρ δεῦ, ἡγαγ' ᾶμ' ἄλλοισι κτεάτεσσιν ὰψ ὑγε τὴν ἀπέλυσε, λαβῶν ἀπερείσὶ ἀποινα· πατρὸς δ' ἐν μεγὰροισι βάλ' * Αρτεμις ἰοχέαιρα. * Ἐκτορ, ἀτὰρ σύ μοι ἐσσὶ πατὴρ καὶ πότνια μὴτηρ, ἠδέ κασίγνητος, σῦ δέ μοι θαλερὸς παρακοίτης. ἀλλ' ἀγε νῦν,ἐλέαιρε, καί ἀυτοῦ μίμν' ἐπὶ πὑργῳ μὴ παἶδ' ὀρφανικὸν θείης, χήρην τε γυναῖκα· λαὸν δὲ στῆσον παϸ ἑρινεὸν, ἑνθα μάλιστα ἄμβατός ἐστι πόλις, καὶ ἐπίδρομον ἔπλετο τεῖχος.

2. Ταῦτα λέγων τῷ Κροίσῷ οὖ κως οὖτε ἐχαρίζετο, οὐτε λόγου μιν ποιησάμενος οὐδενὸς ἀποπέμπεται, κάρτα δόξας ἀμαθέα εἶναι ὃς τὰ παρεόντα ἀγαθὰ μετεἰς τὴν τελευτὴν παντὸς χρήματος ὁρᾶν ἐκέλευε.

What grammatical difficulty is there in this passage? What changes are proposed? Translate it as it stands, and according to the proposed reading, and shew the differences clearly.

3. Translate into Latin $\phi \dot{\alpha}_{\zeta} \quad \delta \varepsilon \kappa \delta \sigma \partial a \iota \tau \dot{\sigma} \chi \rho \eta \sigma \partial \dot{\varepsilon} \nu$ and give the rule for the difference of the Greek from the Latin idiom.

4. What relation is expressed by the clause $\delta\kappa\omega\varsigma \ \mu\eta\tau\varepsilon \ \delta\lambda\iota\sigma\theta\epsilon\bar{\iota}\epsilon\nu\kappa.\tau.\lambda.$? Give the rule for the moods used in such clauses, and the corresponding rule in Latin.

5. $\mu\eta \pi a \bar{\imath} \delta' o \rho \phi$. $\theta \epsilon i \eta \varsigma - \lambda a \delta \nu \delta \epsilon \sigma \tau \bar{\eta} \sigma o \nu$. Explain the use of Mood and Tense in these sentences.

6. Parse these verbal forms, giving their principal parts :- άλισθεῖεν. διεσκεδασμένοι εἶεν, ἐντεταλμένα, ἀπιεναι, -- κατέπεφνε, θεῖης, στῆσον, ἐπλετο·

7. Decline ἄστεος, έωυτοῦ, -- ηματι, ὀίεσσιν, πόλις.

8. Write the Attic forms of μετεξέτεροι, ἀργεννῆς, κτεάτεσσιν, ἐσσὶ, θείης, Distinguish εἰμί, εἰμι—ἐστι, ἔστι—ό, ὅ—νυν, νῦν—οὐκοῦν, οὕκουν—εἰς, εἰς— ἰ ἀλλά, ἀλλα.

 φύλλα, τὰ μέν τ' ἀνεμος χαμάδις χέει, ἀλλα δέ θ' ὑλη τηλεθόωσα φύει ἔαρος δ' ἐπιγίγνεται ὥοη.

Words akin to most of these are found in Latin; give them, and explain the differences in form and meaning between them and the Greek.

10. Scan the first lines of passage (b), marking the quantity of each syllable, and accounting for it when necessary.

11. What cases follow verbs denoting the operation of the senses in Greek and in Latin? How is the difference explained? What is meant by the Cognate accusative? Give examples. What verbs are regularly followed by two Accusatives?

12. Write in Greek :-- The Athenians came from the city to see the battle. Crossus thought himself the happiest of men. If you do so, you will do great harm to yourself and your country. O that I might see the many friends I left behind me in Greece.

13. Give a short account of the Homeric controversy.


HALIFAX.

SESSIONAL EXAMINATIONS, 1870.

MONDAY, APRIL 18, 9 A. M.

MATHEMATICS .- SECOND YEAR.

GEOMETRY AND MENSURATION.

1. In right-angled triangles, if a perpendicular be drawn from the right angle to the opposite side, the triangles on each side of it are similar to the whole and to one another.

2. If three straight lines be proportionals, the rectangle contained by the extremes is equal to the square of the mean ; and conversely.

3. Similar rectilineal figures are to one another as the squares of their homologous sides : and, if three straight lines be proportionals, as the first is to the third, so is a rectilineal figure on the first to a similar one on the second.

4. Describe a rectilineal figure, similar to one, and equal to another, given rectilineal figure.

5. If three straight lines meet at a point, and a straight line stand at right angles to them at that point, these three straight lines are in the same plane.

6. Draw a perpendicular to a given plane from a given point above it.

7. If a solid angle be contained by three plane angles, any two of them are together greater than the third.

8. If two chords in a circle cut another, the rectangle of the segments of the one = the retangle of the segments of the other. Prove this shortly by the Sixth Book of Euclid.

9. If lines be drawn from the angles of a triangle through the same point within it, and meet the opposite sides; the solids contained by the alternate segments of the sides are equal.

10. If one circle touch another internally and chords of the greater be tangents to the less circle; the greatest of these is that which is perpendicular to the common diameter.

11. Shew how to find the area of a sector, and of a circle, from the infinitesimal division of the circumference.

12. If a, b, c, d, be the sides in order of a Quadrilateral inscribed in a circle, and A be the angle between a and d, prove area of Quadrilateral = $\frac{1}{2}(ad + bc) \sin A$.

13. The area of a triangular field is 1 acre; also one side of the field : the perpendicular on it from the opposite corner :: 10:11; find the lengths of these in yards.

14. From the top of a ship's mast 60 feet above the level of the sea, the light of a lighthouse, 120 ft. above that level, begins to be discernible. Take the radius of the earth = 4,000 miles, and find how far the ship is from the lighthouse.

15. How much of the surface of a sphere of a radius r feet is visible to an eye at distance l feet from its centre? Find the number of square feet under view, if r = 5, and l = 20.

ATHORNE COUTERE TAND DALARDERLE.

HALIFAX

SESSIONAL EXAMINATIONS, 1810.

MADY WWODDS--- ROITLIGHTAM

 Is right-maded triangles, if a sequendicular is drawn from the right ingle to the upperfite side, the triangles on each side of it pre-similar to the choic and to one another.

 If three staright has be proportionals, the restangle contained by restruction is equal to the square of the mean : and conversely.

3. Similar rectificant figures are to one autobar as the singlers of their considering sides: and, is three areaight little for propareionals, as the first a to the three at the start, so its antes an instance on the start.

Describe a rectilizest figure, similar to and, and equal to another m rectilized figure.

6. If there straight lines meet as a point, and a straight line stoud as point adules to there as that point, since dipase argical leave are in the warm.

 Draw a perpendicular to a given plane from a given point above it.
 If a solid angle he contained by three plane angles, any two of them a topether granter share the three.

 If two chords in a circle-cut muchier, the recurrence of the segments the una == the remarks of the segments of the values. Prove the short's the birth Book or Fuelld.

b. If times to discuss from the angles of a triangle through the area prior within it, and must the procedue shies; the solids contained by the structure segments of the sides are const.

(v) If one circle istach another arentally and chords of the granter is inneuts to the less circle r the grounsel of these is that which is perpendicul area the common diameter.

 Shew how to that the area of a sector, and of a circle, from the simpleximal division of the circumference.

18. If e, b, c, d, be the adder in order of a Quadellateral inserticed in circle, and X be the angle between e and e, prove area of Quadellateral e (all + bo) win A.

18. The area of a triangular field is 1 area; also one side of the field, we perpendicular on it from the opposite corner : : 10:11; find the lengths in these is purch.

34. From the top of a ship's most 00 fost above the level of the see, due light at a inclutionare, (20.6, above that level, begins to be discontible. Take the radius of the earth = 4,000 railes, and find how for the ships in 20m the injectioness.

18. "from much of the similar of a sphere of a radian r fact is visible to an eye at distance. I have from its centre?" [Fluid the number of square feet under view if r = 2 and l = 20.

SESSIONAL EXAMINATIONS, 1870.

MONDAY, APRIL 18, 3 P.M.

MATHEMATICS .- SECOND YEAR.

TRIGONOMETRY AND ALGEBRA.

1. If a =length of arc, $A^{\circ} =$ number of Degrees in it, and r radius of circle; find an equation connecting these quantities. Ex: find the radius of the circle of which an arc of 70° is 6 feet in length.

2. Find the six Trigonometrical functions of 60° and 30°.

3. Prove sin $(90^{\circ} + A) = \cos A$, $\cos (90^{\circ} + A) = -\sin A$, &c.

4. Prove the two fundamental formulæ, (one fig :) viz., $\sin(A + B) =$

 $\sin A \cos B + \cos A \sin B$, and $\cos (A + B) = \cos A \cos B - \sin A \sin B$. 5. If A,B,C, are the angles of a triangle, prove

 $\tan A + \tan B + \tan C = \tan A \tan B \tan C$:

and deduce hence that the sum of the products of the cotangents of these angles, two and two, = 1.

6. If a, b, c, are the sides, and A,B,C, the angles opposite them, prove

 $=\frac{b^2+c^2-a^2}{2bc}$, and write down important results to which this for- $\cos A =$ mula leads.

7. If R and r be the radii of the circumscribed and inscribed circles of a triangle, prove

triangle, prove $r = \frac{1}{2} (a+b+c) \tan \frac{1}{2} A \tan \frac{1}{2} B \tan \frac{1}{2} C$, and $Rr = \frac{a b c}{2(a+b+c)}$.

8. Prove a:b:c:: sin A: sin B: sin C. Given A, B, and a; write the logarithmic equation for finding B.

9. If the sides a, b, c, are given; write the logarithmic equations for finding the angles. Explain also a common method of dealing with this case.

10. A and B are two places on the earth of known latitude and longitude. Describe the steps by which the compass-course from A to B may be approximately found; make no allowance for compass deviation.

11. At O, a point within the triangle A B C, the sides subtend equal angles. Given l, m, r, the distances of the point from A, B, and C.; find the sides and area. 12. Given a Table of Natural sines, cosines, &c.: show how the

Logarithmic Tables are calculated.

13. Prove $\log 1 = 0$, $\log 0 = -\infty$, to any base. Also, to the base 10, the logs of numbers that differ in the position of the Decimal point only (e. g., 589.3 and .5893), have the same mantissa.

14. Find a formula for determining in what time a sum of money will

multiply itself *n* times at r per cent, payments half-yearly. 15. If an annuity that is to commence after q years be commuted for one to commence at the present time, other conditions remaining the same,

 $= \frac{A}{(1+r)^{q}}$ (N.B.—The annuity is not contingent the annual payment on life.)

In a lottery, all the tickets are blank but one, and a number of 16. persons draw a ticket each. Shew that the last has as good a chance of the prize as the first.

17. In what scale is the number 40501 = 5365 in the Denarv scale of notation ?

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HALIFAX.

SESSIONAL EXAMINATIONS, 1870.

THURSDAY, APRIL 21, 9 A. M.-1 P. M.

LOGIC AND PSYCHOLOGY.

PROFESSOR WILLIAM LYALL, LL.D......Examiner.

1. How may Logic be regarded as a branch of Psychology, and yet as a separate science ?

2. Viewed as a separate science, how may it be characterized or defined?

3. What is the advantage of treating it as a branch of mental science, and prefacing it with a view of mind ?

4. In what different ways may mind be regarded, and what are the classifications of its phenomena according to the view adopted ?

5. What important place do the Intuitions hold among the phenomena of mind ?

6. What is the part which the Laws of mind perform in the general operations of mind? What faculty do they correspond with in Sir W. Hamilton's classification of the faculties?

7. On what grounds does Sir W. Hamilton hold a doctrine of immediate perception? How far may his doctrine be admitted? In what is it inconsistent?

8. What are the practical processes? What defective view has been taken of generalization?

9. Under what simple principle may the laws of association be regarded? What is memory? Into what may it be resolved? What is the peculiarity in the imaginative state or Faculty?

10. What is the process in the formation of concepts ? What is the relation which these sustain to Logic ?

11. What are judgments as distinguished from concepts; and what reasoning—the syllogism—as distinguished from a judgment?

12. What is reasoning in the two quantities? Distinguish between reasoning proper, and simple analysis. In which quantity does the true process of reasoning express itself? Was no regard had to the intensive syllogism in the Aristotelian Logic?

13. What has Sir W. Hamilton effected in regard to reasoning?Why can Mill's view of reasoning not be admitted?14. Distinguish between the Inductive and Deductive processes; and

14. Distinguish between the Inductive and Deductive processes; and show how all reasoning is essentially deductive. What is always the major premise in an inductive syllogism ?

15. How are syllogisms divided ? Give the laws of the several kinds, and show how the formal fallacies are a violation of one or other of these laws. In a hypothetical syllogism, what fallacy does the sublation of the antecedent correspond with in the categorical ?

16. Give some account of the figures and moods of the syllogism? What is the reduction of a syllogism? What are the uses of the 2nd and 3rd figures respectively, so that it may not be expedient to reduce a syllogism from these figures to the first?

17. Give a scheme of the material, or extra-logical, fallacies, with examples.

18. What is the doctrine of method ? What does it propose as a part of pure Logic ? Distinguish between Analysis and Synthesis. Show how they may be reciprocally convertible.

19. Show how Definition and Division are at once the Antithesis and complements of each other. Give the rules of each.

20. What is Probation, and what are the laws of this part of method?



SESSIONAL EXAMINATIONS, 1870. Wednesday, April 20, 9 A. M.-1 P.M.

JUNIOR CHEMISTRY.

PROFESSOR GEORGE LAWSON, PH. D., LL.D.... Examiner.

1. Give a list of the Non-Metallic Elements and Metals, thrown into groups and classified, so as to show their mutual relations with respect to chemical characters.

2. Explain concisely the Laws of Chemical Combination by weight and volume.

3. Describe Oxygen fully with respect to (1) its history; (2) its physical and chemical characters; (3) Modes of Preparation, with reactions. What is Ozone ?

4. Describe the process of manufacture of Oil of Vitriol (Sulphuric Acid), giving carefully the re-actions.

5. Describe Phosphoric Acid, with special reference to its union with bases.

6. Describe Chlorine fully and its compounds; also, briefly, Bromine and Iodine.

7. Compare the Oxides of Chromium with those of Manganese and Iron, and indicate the basic or acid or neutral characters of each, and the probable cause of neutrality.

8. Describe the chemical character of the process of Fermentation, and its products; also Acetification. Show wherein the two differ.

9. What is a Compound Radical ? Give examples. What is a Derived Radical ?

10. Give the equivalent and atomic numbers (old and new) of O, H, C, S, P, K, Ca, Mn, Fe, Hg.

THOUSIE COPTEGE VND ONLAERSII

ESSIONAL EXAMINATIONS, 1870. Wennegest. frate 20. No. M. - P. P.M.

TURIOR OREMISTRY.

 Give a first of the Non-Matallie Elements and Metals, thrown foto groups and classified, so as to show their matual relations with respect to shortical characters.

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 Describe the process of manufacture of OB of Variat (Sulpanna, Aohl), giving carefully the reactions.

 Describe Chosphoric Acid, with special relativere to its union with bases.

 Describe Chigging trilly and its esuperators, also, briefly, Browsiae and forline.

 7. Compare the Oxides of Chromitan with those of Matgalase and Iron, and indicate the basic or acid, or scattal characterized each and the probable cause of neurality.

8. Describe and champed character of the process of furthermanual, and its produces (while description). Show whereas the two differences.

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10. Give the aquivalent and attunct matchess (obtained new), of 11, 16, C. B. P. E. Ca. Mu, Fe, Mg.



HALIFAX.

SESSIONAL EXAMINATIONS, 1870.

WEDNESDAY, APRIL 13.

LATIN .- THIRD YEAR.

TERENCE: HEAUTONTIMORUMENOS.—HORACE: ARS POETICA.— VIRGIL: GEORGICS B. I.

PROFESSOR JOHNSON, M. A..... Examiner.

- 1. Translate:
- a. Ch. At te adjuvare oportet adolescentuli Causa. Sy. Facile equidem facere possum, si jubes : Etenim quo pacto id fieri soleat calleo. Ch. Tanto hercle melior. Sy. Non est mentiri meum. Ch. Fac ergo. Sy. At heus tu, facitodum eadem haec memineris, Si quid hujus simile forte aliquando evenerit, Ut sunt humana, tuus ut faciat filius. Ch. Non usus veniet, spero. Sy. Spero hercle ego quoque. Neque eo nunc dico, quo quicquam illum senserim : Sed si quid, ne quid. Quae sit ejus aetas vides, Et nae ego te, si usus veniat, magnifice, Chreme, Tractare possim. Ch. De istoc quum usus venerit, Videbimus quid opus sit : nunc istuc age. Sy. Nunquam commodius unquam herum audivi loqui, Nec quum male facerem crederem mihi impunius Licere. Quisnam a nobis egreditur foras ?
- b. Aut agitur res in scenis aut acta refertur.
 Segnius irritant animos demissa per aurem,
 Quam quae sunt oculis subjecta fidelibus et quae
 Ipse sibi tradit spectator : non tamen intus
 Digna geri promes in scenam, multaque tolles
 Ex oculis quae mox narret facundia praesens.
 Ne pueros coram populo Medea trucidet,
 Aut humana palam coquat exta nefarius Atreus,
 Aut in avem Procne vertatur, Cadmus in anguem.
 Quodcunque ostendis mihi sic incredulus odi.
- c. Ideirco certis dimensum partibus orbem Per duodena regit mundi sol aureus astra. Quinque tenent caelum zonae ; quarum una corusco Semper sole rubens et torrida semper ab igni ; Quam circum extremae dextra laevaque trahuntur, Caerulea glacie concretae atque imbribus atris ; Has inter mediamque duae mortalibus aegris Munere concessae divom, et via secta per ambas, Obliquus qua se signorum verteret ordo.

2. Analyse carefully the sentences: Neque eo nunc....sed si quid, ne quid :- Nec quum...licere.

3. Parse these words and account for mood and case : Soleat, mentiri, memineris, facerem, geri, coquat, dimensum, verteret.—Melior, quid opus sit, mihi, populo.

4. Narrate briefly the myths alluded to in extract b.

5. Give a sketch of Terence's life.

6. Translate into Latin: But this indeed was decided as well on other occasions frequently, as by Caius Fabricius in his second Consulship, and by our senate in the war with Pyrrhus. For when king Pyrrhus had made aggressive war upon the Roman people, a deserter from him came into the camp of Fabricius and promissed him, if he would propose a reward for him, that as he had come secretly, so he would return secretly into the camp of Fabricius and dispatch him with poison. Fabricius took care that this man be sent back in custody to Pyrrhus, and yet this conduct of his was applauded by the senate.

(For those competing for high places.)

1. Translate into English: Apud alios nequaqum tantam molem pugnae inveni, plusque pavoris quam certaminis fuisse; quum inopinato in castra Romana Numidae Hispanique cum elephantis irrupissent, elephanti, per media castra vadentes stragem tabernaculorum ingenti sonitu ac fugam abrumpentium vincula jumentorum facerent; fraudem quoque super tumultum adjectam, immissis ab Hannibale, qui gnari Latinae linguae juberent consulum verbis, quoniam amissa castra essent, pro se quemque militum in proximos montes fugere: sed eam celeriter cognitam fraudem, oppressamque magna clade hostium; elephantos igni e castris exactos.

2. Derive eccos, epol, istorsum, oppido, sodes, mensis, ausculto, sedulo, integer, contamino, nuper, conclave, nuptiae, gruis.

3. What are the oldest known specimens of Latin ? Into what periods may the Latin language be divided ?

4. Give a *scheme* of the oldest Latin metre. When were the Hexamenter and the Lyric metres introduced ?

5. On what occasion were regular stage performances introduced at Rome? How were plays classified? Give a short sketch of Roman comedy. Explain Acta primum tibiis imparibus; deinde duabus dextris.

6. What studies were most congenial to a Roman? Who was the first Roman historian, and of what did he write? Who was the first great writer of prose Latin, and what were his subjects?

7. Give a short sketch of Virgil's life. To whom was he indebted for the materials of his works? Why must his verses, and those of Terence, be scanned on different principles?





SESSIONAL EXAMINATIONS, 1870.

GREEK :- ÆSCHYLUS: PROMETHEUS VINCTUS.- EURIPIDES: BACCHAE. THIRD YEAR.

PROFESSOR JOHNSON, M.A..... Examiner.

- 1. Translate :---
- (a) ΠΡ. σοὶ πρῶτον, 'Ιοῖ, πολύδονον πλάνην φράσω, ήν ἐγγράφου σὰ μνήμοσιν δέλτοις φρενῶν. ὅταν περάσης ῥεἰθρον ἡπείρων ὁρον, πρὸς ἀντολᾶς φλογῶπας ἡλιοστιβεῖς * * πόντου περῶσα φλοἰσβου, ἔς τ' ὰν ἐξίκη πρὸς Γοργόνεια πεδία Κισθήνης, 'ινα αἰ Φορκίδες ναίουσι δηναιαὶ κόραι τρεῖς κυκνόμορφοι, κοινὸν ὅμμ' ἐκτημέναι, μονόδοντες, ἅς οὐθ' ἡλιος προσδέρκεται ἀκτῖσιν οὑθ ἡ νύκτερος μήνη ποτέ. πέλας δ' ἀδελφαὶ τῶνδε τρεῖς κατάπτεροι, δρακοντόμαλλοι Γοργόνες βροτοστυγεῖς, ὡς θνητὸς οὐδεἰς εἰσιδῶν ἕξει πνοάς τοιοῦτο μέν σοι τοῦτο φροῦριον λέγω.
- (b) TE. ώ σχέτλι', ώς οὐκ οίσθα ποῦ ποτ' εἶ λόγων μέμηνας ήδη, και πρὶν ἐξέστης φρενῶν. στείχωμεν ήμεῖς, Κάδμε, κἀξαιτώμεθα ὑπέρ τε τούτου, ὅντος ἀγρίου, ὑπέρ τε πόλεως, τὸν θεὸν μηδὲν νέον ὅρῶν. ἀλλ' ἐπου μοι κἰσσίνου βάκτρου μέτα· πειρῶ δ' ἀνορθοῦν σῶμ' ἐμὸν, κἀγῶ τὸ σόν· γέροντε δ' ἀισχρὸν δύο πεσεῖν· ἰτω δ' ὅμως. τῷ Βακχίω γὰρ τῷ Διὸς δουλευτέον. Πενθεὺς δ' ὁπως μὴ πένθος εἰσοίσει δόμοις τοῖς σοῖσι, Κάδμε· μαντικῆ μὲν οὑ λέγω, τοῦς πράγμασιν δέ· μῶρα γάρ μῶρος λεγει.

2. <code>δταν περάσης ρεϊθρον</code>, κ.τ.λ.—Πενθεὺς δ' <code>δπως κ.τ.λ.</code> Analyse these sentences into their principal and subordinate clauses, naming the latter. Translate the second sentence into Latin.

 Account for the cases of μνήμοσιν, φρενῶν, ἀκτῖσιν, τωνδε (α) – λόγων φρενῶν, ἀγρίου, μοι, τῷ.

4. Parse, giving the principal parts, περάσης, έξίκη ἐκτημέναι δισθα, ἐξέστης, ἕπου, πειρῶ, ἀνορθοῦν, είσοισει.

5. Scan the first four lines of the first passage.

6. Write a short sketch of Euripides' life.

(The following Questions are to be answered only by those competing for high places.)

(A) 1. κἄζευξα πρώτος ἐν ζυγοῖσι κνώδαλα ζεύγλαισι δουλεύοντα· σώμασίν ϑ' ὅπως ϑνητοῖς μεγίστων διάδοχοι μοχϑημάτων γένοινϑ', ὑφ' ἅρματ' ἤγαγον φιληνίους ἕππους, ἄγαλμα τῆς ὑπερπλούτου χλιδῆς.

Translate this passage as it stands and according to a different punctuation.

 Ζεύς δ' ἀντεμηχανήσαθ', οἶα δὴ θεός ἡήξας μέρος τι τοῦ χθόν' ἐγκυκλουμένου αἰθέρος, ἐθηκε τόνδ' ὅμηρου ἐκδιδοὺς Διόνυσον "Ηρας νεικέων. χρόνῷ δέ νιν βροτοὶ τραφῆναί φασιν ἐν μηρῷ Διὸς, ὄνομα μεταστήσαντες, ὅτι θεῷ θεὸς "Ηρα ποθ' ῶμήρευσε, συνθέντες λόγον

The sentence $\dot{\rho}\eta\xi a\varsigma \ \mu\epsilon\rho\rho\varsigma \ \kappa.\tau.\lambda$, has been explained in various ways. What reading has been proposed for $\tau\rho a\phi\tilde{\eta}\nu a\iota$? Euripides has a play on words in this passage. Give other instances.

> οὐ μὴ προσοίσεις χεὶρα, βακχεύσεις δ' ἰών μηδ' ἐξομόρξει μωρίαν τὴν σὴν ἐμοί ;

3.

Translate these lines and explain clearly the Greek idiom.

4. Write out the principal forms of the *conditional* sentence and their equivalents in Latin Explain the use of the different Moods that follow $\pi \rho i v$.

What words in Latin or English or in both are akin to $\delta\iota\delta\dot{a}\sigma\kappa\omega$, $\kappaa\lambda\delta c$, $\dot{p}h\xi ac$, $\kappa\lambda\eta\delta ec$, $\vartheta\delta u per \rho a$, $\tau ava\delta c$, $oI\sigma\vartheta a$, $\lambda\ell\xi ov$, $\zeta\epsilon\delta\xi ac$, $\dot{p}\epsilon oc$, $\dot{a}\gamma\chi\delta v\eta$, $\delta\dot{a}\kappa\rho v$, $\pi\lambda\eta\rho\epsilon uc$, $\chi\vartheta\sigma\nu\delta c$, $\dot{\epsilon}\chi\omega$, $\vartheta\delta\omega\rho$? Explain the differences of form and give their roots, as far as possible ?

(B) 1. Describe the successive changes in Greek Tragedy, and give the origin of the name.

2. Point out the differences between the Ancient and the Modern Drama in construction, and in the time and place of representation.

3. Describe briefly the appearance and position of actors and chorus in a Greek theatre, and account for the differences.

4. What changes were introduced by Euripides into tragedy?

5. How have the words scene and person their present meaning? What stage machinery was used in Athens?

6. Explain these terms :— τετραλογία, χορηγός, κορυφαίος, ὀρχήστρα, θωρικόν.

(C) 1. Translate the following sentences into Greek :---

They chose war in preference to peace because they have not tasted the evils of war. The judge himself shall be punished, if he trangress the laws of the state. I knew they would prevent the king from coming into the country. Not to do good to your friends, when you can, is wicked. I will not go till I have conquered you.



HALIFAX.

SESSIONAL EXAMINATIONS, 1870.

MONDAY, APRIL 18, 9 A.M.

MATHEMATICAL PHYSICS.

PROFESSOR C. MACDONALD, M.A......Examiner.

1. Enunciate and prove the proposition called " The triangle of Forces."

2. Define a "moment," and write the conditions of equilibrium for a rigid body acted on by any forces in the same plane.

3. If the centre of gravity of a body be known and also that of a part of it, the centre of gravity of the remainder can be found. Ex : from a given square, the triangle formed by joining the middle points of the adjacent sides, is cut off: find the centre of gravity of the remainder.

4. Two forces, P and Q, that act at the extremities of a smooth lever resting on a fixed point, at angles m° and n° , are in equilibrium : find the pressure on the point, and the force required to keep the lever from sliding.

5. The Screw is a compound mechanical power, and its mechanical

 $advantage = \frac{Circumference described by Power.}{Distance between the threads of the Screw}.$

6. Prove the formula, $v^2 = V^2 + 2$ fs : and deduce hence the height to which a body projected vertically upwards ascends.

7. The force, due to the rotation of the Earth on its axis, that tends to diminish the force of gravity, varies as the square of the cosine of the latitude. Prove this; and consider its magnitude, as we proceed from the equator to the pole.

8. Assuming the usual notation, find the time of flight of a projectile over a horizontal plane through the point of projection, and the greatest height attained.

9. The velocity at any point in the path of a projectile is that due to the height of the directrix above the point.

10. Place a body between the Earth and the Moon so that it shall tend to fall towards neither : having given that the Moon's mass $=\frac{1}{80}$ th the Earth's, and the distance of the centres = 60 times the Earth's radius.

11. Show how to find the specific gravity of a solid that sinks in water. 12. A right cone, loaded internally at the vertex, sinks in water $\frac{3}{4}$ its height, and in another fluid $\frac{9}{10}$ of the same. Prove the specific gravity of this fluid = $\cdot 57 + \cdot$

 Draw and explain the mechanism of a Lifting Pump.
 From the effects of heat upon a portion of air, (1) when allowed to expand, and (2) when not allowed, determine the mechanical equivalent of heat.

15. A descending weight P draws a weight Q up a smooth inclined plane (height = h, and length = l), by a cord passing over a pulley at the top of the plane: and the cord is cut when Q has motion enough to carry it just to the top of the plane. Prove that at this time Q's distance from

the bottom of the plane =
$$\frac{P+Q}{P} \cdot \frac{hl}{h+l}$$

16. A circus-rider, riding in a ring, has to incline his body inwards at a certain angle with the vertical : but if he increase his speed by one-half he has to incline his body twice as much as before. Prove that the angle of his inclination in the first case is $= 18^{\circ} 26'$, it being given that the $\tan 18^\circ 26' = \frac{1}{2}$.

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al auto estato of pravity of a body to impose and the start of a par-

¹ A more real and a subscription of the remainder sum be found. For a from a given quarket, the triangle formeral by joining, the middle points of the requestion odes, in case of the interim contrasts of generaty of the remainder.

a. Two servers, I' and Q, method as the extremulates of a second property results; can break point, as angula as varied as' and it equilations, find the presence on the point, and the force required to keep the leave from this of the b. The force is a compound travianted power, and its merimulation, a difference is a compound travianted power, and its merimulation.

CANTERISTORY BREATHING BY TOWARD

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8. Assuming the qualitation through the point of projection, and the position isotent attractional planet through the point of projection, and the position isotent attraction.

-g. The velocity at my point in the path of a projectate is that the rethe field in of the discourts above the point.

10. Fines a body browners the Early and the Moon so that it shall relied to full towards network i having given that the Moon's name = yeth the

Earth's, and the destance of the control on 60 times the Earth's radius. 11. Shaw have to find the specific gravity of a solid that sinks in control

12. A vight same loaded internally at he other, and, in way 7 the height, and in motion under the other same. Prove the speadle structly e.

se. Trave and explain the medianism of a Iditive Pump

14. From the schere q^{i} is an upon q portion of $\lambda_{17}(1)$ when informed is expand, and (g) when not allowed, determine the measured symmetries to heat.

noti. 1.8. A descending weight P draves a regint Q op n smooth inclused plane (height = A, and length = I_1 , by n early parting over a public at see tup of the plant, and the coult is not when Q has motion enough to each t plant to the tup of the plane. There that at this time Q's distance from

16. A circumstidier, riding in a ring, but to incluse his body involute at a certain angle with the vertical, out of he increase this speed by one half no bas to include its holy twice as much as before. Prove that the start he of his variation in the first case is see $1 \times 20^{\circ}$, it here, given cleat the two of he is $1 \times 20^{\circ}$.

HALIFAX.

SESSIONAL EXAMINATIONS, 1870. TUESDAY, APRIL 19, 9 A.M.-1 P.M.

EXPERIMENTAL PHYSICS.

VERY REV. PRINCIPAL Ross, D.D..... Examiner.

t. What is the difference between Vapor and Gas?

2. State the fundamental principle of Elastic Fluids known as "the Law of Mariotte." Outline the apparatus (Mariotte's tube) by which the accuracy of the law may be proved.

3. In an air pump whose receiver contains nine times as much air as its barrel, what proportion is expelled by the first stroke ? What proportion of the whole amount is expelled by five strokes ?

4. How do Barometers indicate approaching changes of weather ? If fair weather has continued for several days, during which the mercury has continued to fall, what kind of weather may be expected.

5. What number of vibrations, per second, is necessary to produce the note A of the treble clef? What is the length of the vibration?

6. Mention the sources of Heat. How is animal heat produced ?

7. Describe the Conductometer, and explain its object.

8. Equal weights of Water and of Mercury at the same temperature, contain unequal quantities of heat. By what experiment can this fact be proved ?

9. What is the relation between the capacities of bodies for heat and their densities ?

10. Explain the principle on which the multiplying glass is constructed.

11. How many distinct properties are contained in the solar rays? In what parts of the spectrum is each of these properties exhibited in greatest intensity?

12. According to the undulatory theory of light, what is the length of a red luminous wave? How many undulations in a second?

13. In how many ways may light be polarized ? Describe the Polariscope.

14. What parts of a Magnet possess the greatest amount of magnetic-force ?

15. When a Magnet is broken, what magnetic phenomena do the fragments exhibit ?

16. To what regular variations is the Magnetism of the Earth subject 2

17. State the principles on which lightning rods are constructed.

18. What are the principal differences between Frictional and Voltaic-Electricity ?

19. Explain the nature of Intensity and Quantity

20. Describe Daniel's constant battery.

21. What relation does the strength of the current bear to the electromotive force of the battery and the resistance of the circuit? (*Ohm's law*.)

22. Explain the principle on which the Electric Telegraph is constructed.



HALIFAX.

SESSIONAL EXAMINATIONS, 1870.

THURSDAY, APRIL 21.

METAPHYSICS AND ESTHETICS.

PROFESSOR WILLIAM LYALL, LL.D...... Examiner.

In what circumstances may Ionic speculation be said to have origi-1. nated ? Give the leading names in the Ionic Philosophy.

Characterize the Eleatic School, and mention its principal specula-2 Distinguish it from the Italic School. Show how Ontology came tists. to assume a psychological phase, and originated psychological enquiry.

3. What are the distinguishing features of the Socratic philosophy ?

4. In what respects did Plato follow up the Socratic method? How did he unite all previous speculation, and in a certain sense anticipate the questions of future philosophy ?

5. What is Aristotle's place in philosophy? In what respect is his system the rival of Plato's ?

6. What intercalary character did the Epicurean and the Stoic systems sustain ? How do they diverge from previous speculation ? What influence did they exert in originating the new Academy ?

Give some account of the new Academy and of Neo-platonism. 7.

8. What may be the "oppositions of Science, falsely so called," refer-red to by the Apostle ? What correspond to these in modern philosophy ? How may faith be vindicated without the abdication of reason

9. What questions chiefly occupied the scholastic ages? Into what epochs may these ages be divided, according to the views entertained on the subject of Realism and Nominalism ?

10. State the relation of DesCartes to Philosophy. What are the Cartesian ideas, and what influence did they exert on subsequent speculation ?

What was DesCartes' view on the subject of perception ? State 11 briefly how the question stands in regard to perception, and give a consecutive view of the question till the present time.

12. What form has the question of Realism and Nominalism assumed in modern thought ?

13. How has Ontology merged in Psychology ?

What states are excluded from Aristotle's distribution of mind ? 14. What is his distribution ? What is the modern distribution corresponding with Aristotle's ?

15. On what principles is it attempted to be vindicated that the feelings do not properly hold a place in any philosophic division of mind ?

16. How have the feelings been viewed by a certain order of thinkers, even after they were admitted into a classification of the mental States ? What more philosophic view may be adopted, and on what principle may the Emotions be classified ?

17. To which class does the Esthetic Emotion belong? State the different theories on the subject of the Beautiful and the Sublime. What seems to give Alison's theory the pre-eminence over the others? What classification may be given of the Fine Arts? 18. Classify the Desires. What regulative principle may be recognized

in the desires themselves, almost amounting to an Ethical principle, and involving a theory of virtue, or of the moral constitution? 19. What beyond this may be recognized in the Ethical judgment?

What is Conscience ?

20. What is pre-eminently the active Power, and what views have been advanced on the subject of our voluntary States?



SESSIONAL EXAMINATIONS, 1870.

THURSDAY, APRIL 21.

FRENCH. - THIRD YEAR.

JAMES LEICHTI, ESQ..... Examiner.

Translate the following passages :

(A.) "Ménalque a une fois perdu au jeu tout l'argent qui est dans sa bourse; et, voulant continuer de jour, il entre dans son cabinet, ouvre une armoire, y prend sa cassette, en tire ce qu'il lui plât, croit la remettre oū il l'a prise; il entend aboyer dans son armoire qu'il vient de fermer; étonné de ce prodige, il l'ouvre une seconde fois, et il éclate de rire d'y voir son chien qu'il a serré pour sa cassette." "LaBruyēre."

(B). "Il faut que je vous conte une petite historiette qui est trēs vraie, et qui vous divertira. Le roi se mêle depuis peu de faire des vers; M. M. de Saint Aignan et Dangeau lui apprennent comment il faut s'y prendre."

(1). Perdu and prise (A.) What is the agreement of these Past Ps. Why? Correct what is wrong in the agreement of P. P's. in the following sentences, and give rules: Plusieurs maisons ont éte brûlé. Les voy ageurs ont bien dormis; ils sont partis ce matin. Il s'est cassée la jambe. Nous nous sommes rencontrés, mais nous ne nous sommes pas parlés.

(2). Account for continuer and jouer (A). When is the Inf. required?

(3). Explain the words y and en; mention the corresponding prepos., and translate: He spoke of the accident. He spoke of it. He thought of the affair. He thought of it.

(4). Name the eight idiom, tenses formed with *aller*, *venir*, and *devoir*, and write an ex. on each form.

(5). Il faut que je vous conte (B). What mood is the verb in ? Why? Give another construction of the same sentence. Write : My brother wants a Latin dictionary.

(6.) In the sentence: Le roi...depuis peu, complete the expression depuis peu What impers. form might be used for depuis?

(7.) Show by exs. the difference between : Qui est-ce qui and qu'est-ce qui ; tout ce qui and tout ce que ; voici, voilā and il y a.

(8). Human life is composed of sorrows (ennuis) and joys. That fruit is eaten green (vert). How is the English passive rendered in French?

(9). La femme de votre ami qui est si charitable, a adopté cet orphelin. What is wrong in this sentence ? Why ?

(1.). What verb is used in speaking of temperature? Write exs. on y avoir expressing time, distance, and number.

(11). State the difference between; dans and en; vers and envers; avant and devant. How is home to be expressed? Ex:

(12). Translate into French: My dear friend. In my last letter I had the pleasure of informing you of my intention to set out for (partir pour) Europe this month, in order to attend a course (suivre un cours) at one of the Scottish Universities. As you have kindly promised me some letters of introduction, I would ask you the favor to send them to me immediately; for the steamer leaves (partir fat.) on Tuesday next. Should you have anything to send to your friends, I shall be happy to take charge of it, (se charger de qch.) Friday next I shall write to you again, and remain ($\hat{e}tre$), in the meantime, (en attendant) etc.



SESSIONAL EXAMINATIONS, 1870.

FRIDAY, APRIL 22.

GERMAN.-THIRD YEAR.

JAMES LEICHTI, ESQ...... Examiner.

'Translate: (1) From Nonne's "Die leuchtenden Sterne."

"Es war eine kalte, dunkle (a) Mitternacht, da ging der alte Hermann (b) mit seinem Sohne über die Heide. Den ganzen Tag über waren sie gewandert (c) und kehrten jetzt fröhlich und wohlgemuth zu ihrem hemathlichem Dorfe zurück, (d). Graue Nachtwolken waren am Himmel dicht über einander geschichtet, so dass kein einziger Strahl eines freandlichen Lichtes den einsamen Pfad erhellete."

(2). From Schiller's "Parabela and Räthsel."

Ich wohn' in einen steinern Haus, Da lieg' ich verborgen und schlafe ; Doch ich trete hervor, ich eile herans, Gefordert mit eiserner Waffe. Erst bin ick unscheinbar und schwach und klein, Mich kann dein Athem bezwingen ; Ein Regentropfen schon saugt mich ein, Doch mir wachsen im Siege die Schwingen ; Wenn die mächtige Schwester sich zu mir gesellt, Erwachs' ich zum furchtbar'n Gebieter der Welt."

(3). Explain the agreement of Adjects. preceding nouns (a). Write an ex. with an adj. as predicate. Decline in four cases sing. and plur. : Der treue Freund (pl. w. a.) Eine alte Frau, (pl. d. a.) Neues Haus (pl. w. a.)

(4). Why is the Nom placed after the verb (b)? When is this inversion required? Write in German : To-day we shall write.

(5). Point out the place of Past. P's. conjug. with haben and sein (c). How do you account for the Inf. sollen in: Er hätte schreiben sollen. Ich würde es dir schon gesagt haben. Explain the position of P. P. gesagt.

(6). Account for the word zuruck (d). Two tenses require this form of the verb : which? In what do their P. P. differ from those of verbs like : loben, zerstören (r.)?

(7). Aus; für; an; während; mit; auf; wegen; ohne; unter: hinter. Illustrate by short exs. the cases these preps. govern. Point out those which take two cases, stating when they require the one, and when the other case.

(8). When is there are translated: Es sind, and when: Es gibt.? Write: There are many people (Leute), who cannot write. There are Ladies in the room.

(9). What difference is there between nein; nicht; kein. Give exs.

(10). What are the endings of diminutives in German? Of what gender are such nouns? How are they declined? Write the dims. of Bruder, Knabe, Tisch.

(11). Translate into German: I have seen the diamonds of the Queen. These two girls are sisters. He is in his house, (Dat). These houses are very old. You are right, he is wrong. He is as young as I. Which is the coldest month? How old are you? I am twenty. In 1870. Halfpast two. On the 22nd of April. Half-an-hour. How many times have you been in Europe? I have never been there.

REALD AND DAAL DAALA COUNTY, INTER

" is war eine kuite dunkie (a) hierawarcht, is ging der alte Hermann (a) mit seinen Sohne üher die Heise. Den genaces Lag üher waren de gewandes (c) aud keinere jane fehlich und vohigemun zu ihren hernahlichen iberb zurück (a). Ginne Stehnenikon waren aus blutter blait üher einander geschichten au das kein einziger Strahl eine freundgeben Lighten des einanten Find-erhelten."

> prime reality in summ straten and influence let word in summ strater Haus, Da log is breaching a mut schlaft; Dech ich irrit herver, ich als brands; Gotoniert mit oneriver Waff. Free tim is b mession har and schwach and him Mich issue den Athan bezwingen; All freeschropical schon samer mich sin, Mach iner wachsen an Serge die Schwangen;

being the second state and the second second second second

(a) Extends the acceleration strategy preparing burget provided by a set of the second (Declare N and an entries) and a presence (Declare N and a second (Declare N and A s

(3). Found out the places of Fast, IPs, conjug, with another and set (). How do you account for the lar, splite in Er halos calcular addres and wirdle as the reduct account of the Explain and particles of P. P. enorget (1), decount of the flux and calcular (d). The transfer and for of the 10.

the verte - velocity I in which C (bein Γ , Γ , differ from these of vertes (lies below, services (x, y)?

(7) Aint (Fir) out solutional solution (1) second of a constraint of a solution of

(8). When is there are translated: *Le sind*, and when: *Es qu't* ' Write: There are many people (*Lease*), who sannot write. There are Laffice in the room.

9). What difference is there between new; next; here. Give ex-

(10). What are the endings of diminutives in German? Of what gender are such numb? How are they declined? Wros the dime. of Brader Krate, Theb.

(14). Translate into German: I have sten the diamonds of the Queen These two girls are aisters. He is in his house, (Lot). These bouxes are very old. You are right, he is vegoug. He is as young at L. Which is the coldest month? How old are you? I am twenty. In 1870. Hulfpaut two. On the 22nd of April. Half-m-hour. flow many times are you have in Europe? I have are the care there.



SESSIONAL EXAMINATIONS, 1870.

WEDNESDAY, APRIL 13.

FINAL EXAMINATION FOR DEGREE OF B.A.

LATIN.

TACITUS: AGRICOLA. – JUVENAL: SATIRES III., XIII. – CICERO: TUSCULAN QUESTIONS, B. I.

PROFESSOR JOHNSON, M. A..... Examiner.

A-1. Translate:

a. His atque talibus invicem instincti, Boudicea, generis regii femina, duce (neque enim sexum in imperiis discernunt) sumpsere universi bellum : ac sparsos per castella milites consectati, expugnatis praesidiis, ipsam coloniam invasere ut sedem servitutis. Nec ullum in barbaris saevitiae genus omisit ira et victoria. Quod nisi Paulinus cognito provinciae motu propere subvenisset, amissa Britannia foret : quam unius praelii fortuna veteri patientiae restituit, (tenentibus arma plerisque quos conscientia defectionis et proprius ex legato timor agitabat), ni quamquam egregius cetera, arroganter in deditos, et ut suae quoque injuriae ultor, durius consuleret. Missus igitur Petronius Turpilianus tamquam exorabilior et delictis hostium novus eoque paenitentiae mitior, compositis prioribus, nihil ultra ausus, Trebilio Maximo provinciam tradidit.

b. Hic alta Sicyone, ast hic Amydone relicta, Hic Andro, ille Samo, hic Trallibus aut Alabandis, Esquilias dictumque petunt a vimine collem, Viscera magnarum domuum dominique futuri. Igenium velox, audacia perdita, sermo Promtus et Isaeo torrentior. Ede quid illum Esse putes ? quem vis hominen secum attulit ad nos : Grammaticus, rhetor, geometres, pictor, aliptes, Augur, schoenobates, medicus, magus : omnia novit. Graeculus esuriens in caelum jusseris ibit. Ad summum, non Maurus erat neque Sarmata nec Thrax Qui sumsit pennas, mediis sed natus Athenis.

2. Analyse fully the sectence quam unius praelii . . . consuleret. What other readings are given ? Translate accordingly.

3. Write short notes on Coloniam, Boudicea, Sicyone, Amydone, Andro, Trallibus, Isaeo, qui sumsit pennas.

4. Give the derivation of femina, provincia, Esquilias, rhetor, aliptes, augur, schenobates, magus, esuriens.

5. What are the probable facts in Juvenal's life?

6. Translate into Latin: An oath among the Romans was observed inviolately and with great sanctity. After the battle of Cannæ, Hannibal,

the general of the Corthaginians, sent to Rome ten men chosen from the Roman captives, and stipulated with them that if it seemed good to the Roman people an exchange of prisoners should be made. Before setting out they were bound by an oath to return to the Carthaginian camp, in case the Romans would not exchange prisoners. The ten captives come to Rome. They lay before the Senate the instructions of the Carthaginian commander. The Senate refused an exchange. The parents, kinsmen, and relatives of the prisoners embraced them, and entreated them not to return to the enemy. Then eight of them made answer that they were bound by their oaths, and set out forthwith to Hannibal.

(For those competing for high places.)

B-1. Translate:

a. Tusc. Quest. Book I, Chap. 25, beginning "Quid ? illa vis, quae tandem est quae investigat" to end of chapter.

b. Tusc. Quest. Book I, Chap. 45, to "nihil ad mortuos pertinere."

2. Translate into English the following passage from a work not appointed to be read:—Quanto melius hace vulgus imperitorum! qui non membra solum hominis Deo tribuunt, sed usum etiam membrorum: dant enim arcum, sagittas, hastam, clypeum, fuscinam, fulmen: et si, actiones quae sint Deorum, non vident, nihil agentem tamen Deum non queunt cogitare. Ipsi, qui irridentur, Aegyptii, nullam belluam, nisi ob aliquam utilitatem quam ex ca caperent, consecraverunt. Velut ibes maximam vim serpentium conficiunt, cum sint aves excelsae, cruribus rigidis, corneo proceroque rostro: avertunt pestem ab Aegyptiis, cum volucres angues, ex vastitate Libyae vento Africo invectas, interficiunt, atque consumunt. Ex quo fit, ut illae nec morsu vivae noceant, nec odore mortuae. Possum de ichneumonum utilitate, de crocodilorum, de felium, dicere: sed nolo esse longus.





FINAL EXAMINATION FOR DEGREE OF B.A.

THURSDAY, APRIL 14TH, 1870.

GREEK :-- DEMOSTHENES: PHILLIPPICS, I, II, III.-- PLATO: CRITO, PHÆDO.

GREEK CLASSICAL LITERATURE .--- COMPARATIVE PHILOLOGY.

PROFESSOR JOHNSON, M.A..... Examiner.

1. Translate :--

(a) κέκρισθε γὰρ ἐκ τῶν τούτων ἔργων μονοι τῶν παντων μηδενδς ἀν κερδους τὰ κοινὰ δίκαια τῶν Ἐλλήνων προέσθαι, μηδ' ἀνταλλάξασθαι μηδενδς ἀν κερδους μηδ' ὡφελεἰας τὴν εἰς τοῦς Ἐλληνας εὕνοιαν. καὶ ταῦτ' εἰκότως καὶ περὶ ὑμῶν οῦτως ὑπείληφε καὶ κατ' ᾿Αργείων καὶ Θηβαίων ὡς ἐτέρως, οὑ μόνον εἰς τὰ παροντα ὁρῶν, ἀλλὰ καὶ τὰ πρὸ τούτων λογίζόμενος. εὑρισκει γάρ, οἰμαι, καὶ ἀκούει, τοὺς μὲν ὑμετέρους προγόνους, ἐξὸν αὐτοῖς τῶν λοιπῶυ ἀρχειν Ἐλλήνων, ὥστ' ἀνταλλάξανδαι μηδενδείας τὴν εἰς τοῦς καὶ θηβαίων ὡς ἐτέρως, οὑ μόνον εἰς τὰ παροντα ὁρῶν, ἀλλὰ καὶ τὰ πρὸ τούτων λογίζόμενος. εὑρισκει γάρ, οἰμαι, καὶ ἀκούει, τοὺς μὲν ὑμετέρους προγόνους, ἑξὸν αὐτοῖς τῶν λοιπῶυ ἀρχειν Ἐλλήνων, ὥστ' ἀντούς ὑπακούειν βασιλεῖ, οὑ μόνον οὐκ ἀνασχομένους τὸν λόγον τοῦτον, ἡνίκ' ἡλθεν ᾿Αλέξανδρος ὁ τούτων πρόγονος, περὶ τούτων κῆρυξ, ἀλλὰ καὶ τὴν χώραν ἐκλιπεῖν προελομένους, μὲν ἀεὶ γλίχονται λέγειν, ἀξίως δ' οὐδεὶς εἰπεῖν ὅεδύνηται.

(b) ΣΩ. 'Ω φίλε Κρίτων ή προθυμία σου πολλοῦ ἀξία, εἰ μετά τινος ορθότητος εἰη· ἐι δὲ μή ὅσφ μείζων, τοσούτφ χαλεπωτέρα. σκοπεῖσθαι οὐν χρὴ ἡμᾶς, εἰτε ταῦτα πρακτέον εἰτε μή, ὡς ἐγῶ οὐ μόνον νῦν ἀλλὰ καὶ ἀεὶ τοιοῦτος, οἰος τῶν ἐμων, μηδενĩ ἀλλφ πείθεσθαι ἡ τῷ λόγφ, ὡς ἀν μοι λογιζομένφ βέλτιστος φαἰνηται. τοὺς δὲ λόγους οῦς ἐν τῷ ἑμπροςθέν ἕλεγον, οὐ δύναμαι νῦν ἐκβαλεῖν, ἐπειδή μοι ἡδ¢ ἡ τύχη γέγονεν, ἀλλὰ σχεδόν τι ὅμοιοι φαίνονταί μοι, καὶ τοῦς ἀυτοὺς πρεσβείω καὶ τίμῶοὕς περ καὶ πρότερον. ὠν ἐὰν μὴ βελτιω ἔχωμεν λέγειν ἐν τῶ παρόντι, εὖ ἰσθι ὅτι ὀν μή σοι ξυγχωρήσω, οὐδ' ἀν πλείω τῶν νῦν παρόντων ἡ τῶν πολλῶν δύναμις ὡς περ παιδας ἡμᾶς μορμολύττηται, δεσμοὺς καὶ θανάτους ἑπιπέμπουσα καὶ χρημάτων ἀφαιρέσεις.

2. (a) Shew clearly the construction of each part of the sentence $\varepsilon i \rho i \sigma \kappa \epsilon \iota \gamma \dot{\alpha} \rho$, $\kappa.\tau.\lambda$. (b) Parse the verbs and nouns in it, giving the principal parts of the verbs and the rules for the cases.

3. Describe the events immediately preceding and following the *Peace* between Philip and the Athenians.

4. Mention the chief events in the life of Socrates, and the causes of the hostility of the Athenians towards him.

(The following questions are to be answered only by those competing

for high places.)

1. Translate into English :-- Рижоо, § 43.

(A) 2. Translate into Greek : He knows, therefore, both that he is plotting against you and that you are aware of it; and, supposing you to have common sense, he judges that you detest him as you ought. Besides these important considerations, he is assured that though he became master of everything else, nothing can be safe for him while you are under a popular government: should any reverse ever befall him (and many may happen to a man) all who are now under constraint will come for refuge to you.

(B) 1. What are the chief arguments for supposing the Homeric poems to be the work of one author.

2. There were two styles of lyric poetry in Greece, point out the differences between them, and name the principal authors in each.

3. Where was oratory first studied as an art? Why was Athens well fitted for the study and practice of it? Name the principal orators preceding and contemporary with Demosthenes?

4. What were the subjects of speculation in the several philosophic schools in early times? Name the principal philosophers of these schools and mention their cosmic theories.

5. Who were the Sophists? What was the leading principle of Socrate: rethical philosophy? Give Plato's statements and arguments about the soul and its future state.

(C) 1. What is meant by the term *Phonetic Decay* used by Max Müller? Give examples in Greek, Latin and English. What is the origin of the adverbial termination *ment* and of the forms of nouns in French?

2. State Grimm's Law in a general form. What words in Greek and Latin are cognate to hart, sit, child, that, who, deer, garden, goose.

3. What was the sign of the Abl. in Old Latin? What traces of it are found in Greek and classical Latin? Where is the Locative found in Latin and Greek?

4. What forms were used in Indo-European languages to express the superlative degree? Give an example of each in Latin and Greek, and explain the form if necessary.

5. Explain the differences in the personal endings of the Present and Imperfect Indicative Active in Greek. How was the Imperfect formed in Greek, Latin and English? Account for the different forms of the Latin Perfect.

6. Show that these forms were originally indentical: $\epsilon i \mu i$ sum, $am = \epsilon i \eta v$, $sim = \dot{a}\pi \omega v$, absens = vexi, $\dot{\epsilon} \xi a$.



SESSIONAL EXAMINATIONS, 1870.

FRIDAY, APRIL 22, 9 A.M.-1 P.M.

FINAL EXAMINATION FOR DEGREE OF B.A.

ETHICS AND POLITICAL ECONOMY.

1. What special difficulties must be encountered in the study of Ethical and Political Science ?

2. Illustrate the Educational Value of the study of these subjects.

3. Mention the several states and operations of mind which constitute a motive.

4. Is the connection between Motive and Volition anything more than the connection between cause and effect ?

5. What is the grand peculiarity of Will?

6. Illustrate by examples the power of the Desire of Society.

7. Illustrate the importance of the Desire of Superiority to the progress of improvement.

8. What is "Smith's theory of Moral Sentiments ?"

9. Enumerate the most important classes of Rights, with their corresponding duties.

10. Prove, by the principles of Natural Religion, that it is our duty to speak the truth.

11. Explain the difference between Science and Art, and their influence upon each other.

12. What is the grand peculiarity and excellence of the "British Constitution ?"

1. Explain the difference between Politics and Political Economy; and between Value and Utility.

2. Why cannot the division of labor be advantageously introduced, to the same extent, into Agriculture as into Manufactures ?

3. Is it possible to obtain as exact and invariable a Standard of Value, as of Weights and Measures ? Why ?

4. Why would not *Precious Stones* constitute as good a circulating medium as the *Precious Metals*?

5. To what evils is a mixed currency liable ?

6. What parties gain by an inflated currency? Who lose?

7. Is it reasonable to suppose that *Communism* would call into exercise the same amount of industry as a system in which the laborer is remunerated in proportion to the amount of work which he performs? Assign reasons.

8. Enumerate the circumstances which affect the rate of wages.

9. Shew that it is good economy, on the part of the Inhabitants of a town, to provide themselves with efficient schools, and other means of mental improvement.

10. Prove that Vice is very expensive.
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SESSIONAL EXAMINATIONS, 1870.

WEDNESDAY, APRIL 20, 9 A.M.-1 P.M.

SENIOR CHEMISTRY.

PROFESSOR GEORGE LAWSON, PH. D., LL.D...... Examiner.

1. Find how much HO, SO₃, is required to decompose 856 grains of KO, NO₅, and how much Hydrated Nitric Acid is set free.

2. Give a concise statement of recent improvements in Chemical Nomenclature and Notation, with the reasons for adopting them.

3. Theory of Types,---a full explanation, with examples.

4. Theory of Compound Radicals,-explanation, evidence, and examples.

5. Theory of Spectrum Analysis.

6. Describe fully the process of Manufacture of Oxalic Acid,

7. Discuss the views held by Chemists at different times as to the Theoretical Constitution of Natural Alkaloids,

8. Describe fully the Proximate Constituents of Milk, their Chemical characters, and the changes of which they are capable; and point out the relation of each to the process of animal nutrition.

9. Point out the more important chemical characters of (1) Saliva. (2) Gastric Juice. (3) Intestinal Secretion. (4) Bile. (5) Urea. What is the immediate chemical source of muscular energy?

10. Give an account of the double salts which Platinum forms with other bodies.

11. Point out the chemical differences between the following processes :—(1) Fermentation. (2) Eremacausis. (3) Putrefaction.

Give tests for the following poisons :- (4) Arsenious Acid. (2)
Antimony Salts. (3) Copper do. (4) Lead do. (5) Hydrocyanic Acid.
(6) Strychnia.

13. Explain the mode of ascertaining the amount of Arsenic present in the contents of a stomach, and give the calculations required, assuming the amount found to equal gr. 1.058 of Arsenious Acid.

SESSIONAL EXAMINATIONS, 1870 WRINNERS, APRIL 20, 2 A.M.-1 P.M.

SENIOR CHEMISTRY.

Procession George Laweev, Pr. D., LLD. . . , Employ. 1. Find how much HO, SO₂, is required to decompose 836 grains of 10. NO₂₁ and how much Hydrated Witric Aidd is soffree.

 Give a consist statement of research improvements in Chamles Normatedature and Naturion, with the releases for adopting them.

6 Theory of Types,—a full explanation, with examples.

 Theory of Compound Badieuls — explanation, evidence, and exmatics.

Theory of Spectrum Analysis.

Describe fully the process of Manufasture of O safe Acid.

 Discuss the views held by Chemiers at different times as to the Promotion Constitution of National Albahoida.

 Describe taily the Proximite' Constitutions of Mills, their Chemical characters, and the charges of which they are capables, and point out the relation of each to the process of solution intrition.

Point out the more important chamber characters of (1) Sulfree.
Gastrie Juice. (3) Intentinal Securitors. (4). Bile. (3) Press. What is the immediate channel source of unwealter energy !

 Give an account of the double rate which Platimum forms with other holicer.

 Point car therefrenical differences between the following processes :--(1) Bernantation; (2) Kramacatais; (3) Patrichetion.
12. Give tests for the following polymes; --(1) Argenious Acid. (3) Autimous Safts. (4) Copper do. (4) Lord do. (5) Hydrocynnic Acid.

13. Explain the mode of accertaining the diminist of Assessic present is the contents of a standards, and give the calculations required, assessing the accessit found to equal gr. 1958 of Arsenbous Acid.

DALHOUSIE COLLEGE AND UNIVERSITY,

HALIFAX.

SESSIONAL EXAMINATIONS, 1870.

THURSDAY, APRIL 21.

FINAL EXAMINATION FOR DEGREE OF B.A.

FRENCH.-FOURTH YEAR.

JAMES LEICHTI, ESQ...... Examiner.

Traduisez: (1). Extrait de l'Horace par "Corneille" Acte II. Scene III.. (2). Extrait du Gil Blas par "Le Sage."

(3). La Syntaxe de la langue française admet-elle beaucoup de variafions dans l'arrangement des mots ? Quel ordre faut il établir dans touteproposition ? Le même ordre a-t-il lieu en latin ?

(4). Corrigez les phrases suivantes, et mentionnez en quoi consistent les fantes: Les facultés de l'esprit sont comme les plantes, qui, plus on leseultive, plus elles donnent des fruits. Celui qui travaille à dompter sespassions, il ne peut manquer d'être homme, Si le bon sens n'est pas estimé ee qu'il vaut, est que personne ne creit en manquer. En quoi Fénélon eut beaucoup de difficulté à surmonter, fut l'éducation du sue de Bourgogne.

(5.) Quel est l'accord du verbe dans les phrases suivantes : My partner and he will be on board the vessel before the merehant. His urbanity and suavity enclanted them. Wind, rain, lightning, thunder, everything coneurred to (\bar{a}) make the night dreadfal. Vanity, says Pascal, is so rooted (ancrée) in the human heart, that a scallion (marmiton), a porter even boasts (se vanter), and wishes to have his adm rers.

(6). L'amour n'est qu'un plaisir et l'honneur un devoir. Quelle figure de Syntaxe cette plarase renferme-t-elle ? Est-elle *régulière* ou *vicieuse* ? Pourquoi ? Ecrivez correctement : l'eusse été autrefois tout disposé à vousrendre service, comme aujourd'hui et à l'avenir, si je n'avais pas à me plaindre de vous.

(7.) Qu'est-ce que le Pléonasme ? Peut-il être admis dans ces vers de Corneille : Il en couta la vie et la tête à Pompée. Peut-on plus dignement mériter la couronne ?

(8). Quelle différence y a-t-il entre: Quelqu'un est-il plus savant que ce docteur, et Personne est il...; entre: y a-t-il quelqueellose de plus parfait que ce tableau, et y a-t-il rien de plus....

(9). Expliquez l'emploi des deux mots son et leurs dans les phrasessuivantes ? Les deux rois firent chanter des te-deum, chacun dans son camp. Les langues ont chacune leurs bizarreries (Why not ses.)

(10). Ecrivez en Français : There is a friend of yours. That's a strange idea of yours. I paid for the house with my own money. He has a house of his own. One seldom speaks of one's own faults.

(11). Traduisez en français : "Lord Chesterfield to his son."

You cannot but be convinced that a man who speaks and writes with eloquence and grace, who makes choice of good words, and adorns and embellishes the subject upon which he either speaks or writes, will persuade better, and succeed more easily in obtaining what he wishes, than a man who does not explain himself clearly, speaks his language ill, or makes use of low and vulgar expressions, and who has neither grace nor elegance in anything that he says.



SESSIONAL EXAMINATIONS, 1870.

FRIDAY, APRIL 22.

FINAL EXAMINATION FOR DEGREE OF B.A.

GERMAN.-FOURTH YEAR.

JAMES LEICHTI, ESQ..... Examiner.

Translate: (1) From Schiller's "Wilhelm Tell," Act I., Scene IV. (2). From Uhland's "Lied eines Armen."

> O reicher Gott ! du liessest doch Nicht ganz mich freudenleer Ein süsser Trost für alle Welt Ergiesst sich himmelher.

Einst öffnet jedem Guten sich Deiu hoher Freudensaal ; Dann komm auch ich im Feierkleid Und setze mich an's Mal.

(3). "Sprüche in Prosa."

"Es ist besser das geringste Ding in der Welt zu thun, als eine halbe Stunde für gering halten. Wehe dem Jüngling, der die Stunde zu einer grossen That vorübergehen lässt; er ist nicht werth, eine zweite zu finden. Wer sich nicht zu viel dünkt, ist mehr als er glaubt."

(4). How is the subject influenced by the inversion of the object ? Write in inverted form ; "Ich nehme den Vorschlag gerne an."

(5). By what particulars are subordinate clauses in compound sentences characterized? Translate: It was night when I arrived in London. He took a walk after having studied (*studirt*). My friend did not see it, because he did not go out. You would be glad if I now sent the Professor's letter to your father.

(6). The Infinitive is required with um-zu in two cases. Give an example for each case.

(7). I do not know where to go. Tell him what to do. How is the elliptical lnfin. after how, what, and where completed in German ?

(8). Glauben Sie dass er kommon wird? Glauben Sie dass er kommen werde? State the difference in the meaning of these sentences. Account for the subjunc. in : Er fragte warum wir nicht gekommen seien.

(9). Write the German of the following expressions: All my money. All the year. All England. Both of us. Both silver and gold. Take another cup (*Tasse*) of tea. No more money. Much. Many. Little. Few.

(10). How is the preposition of to be translated in the phrases : The thought of God. The fear of death. Love of life. From want of money.

(11). Translate: "Le vieux prince de Kaunitz se trouvant un soir en société à Vienne, un jeune fat, qui aperçut ce ministre seul dans l'embrasure d'une fenêtre, s'approcha de lui et lui demanda s'il s'ennuyait (sich langweilen). Non Monsieur, lui répondit le prince, en le regardant fixement (starr), je ne m'ennuie jamais, on m'ennuie. A cette réponse inattendue le jeune fat bégare quelques mots, et se retire tout confus (beschämt).

STREEPAR EXAMINATIONS, 1870

FINAL EXAMINATION FOR DEGREE OF B.A.

GERNAN -FOURTH TEAR

O reichter Gott I du Russent doch Nicht gans noch ferudeninge | Rin stäuer Trost für alle Walt Ergiesst sich biratailheir.

Mart Jiher iedom Gatan sieb Dien haber Pronktaand : Durn kohm ande ich im Poiorkleid Und sotze mich an - Mid.

process disconserved in Translator: If was night which I arrived in London file work a walk after harring stabilist (missivit). My fiteast did not see it accentes in did not go out. You would be guideff now some the Professor i better to your fotors.

(3). " Sprüche in Press." "Es its besaur das geningene Ding in der Wels au flüm, die eine halbe sande für gering halten. Wels den Jürgling der die Strade zu einer

SESSIONAL EXAMINATIONS, 1870.

WEDNESDAY, APRIL 13.

LATIN .- FIRST YEAR.

CICERO: DE AMICITIA.

PROFESSOR JOHNSON, M.A.....Examiner.

1. Translate the following extracts :

a. Quamquam confirmatur amor et beneficio accepto et studio perspecto et consuetudine adjuncta; quibus rebus ad illum primum motum animi et amoris adhibitis admirabilis quædam exardescit magnitudo: quam si qui putant ab imbecillitate proficisci, ut sit per quem assequatur quod quisque peteret, humilem sane relinquunt et minime generosum, ut ita dicam, ortum amicitiae quam ex inopia atque indigentia natam volunt. Quod si ita esset ut quisque minimum in se esse arbitaretur, ita ad amicitiam esset aptissimus: quod longe secus est.

b. Atque etiam mihi videntur qui utilitatis causa fingunt amicitias amabilissimum modum amicitiae tollere. Nam enim tam utilitas parta per amicum quam amici amor ipse delectat; tumque illud fit, quod ab amico est profectum, jucundum, si cum studio est profectum : tantumque abest ut amicitiae propter indigentiam colantur, ut ii qui opibus et copiis maximeque virtute praediti, in qua plurimum est praesidii, minime alterius indigeant, liberalissimi sint et beneficentissimi. Atque haud seio an ne opus sit quidem nihil unquam oinnino deesse amicis. Ubi enim studia nostra viguissent, si nunquam opera nostra nee domi nec militiae Scipio eguisset ? Non igitur utilitatem amicitia, sed utilitas amicitiam consecuta est.

2. Write out at length the different clauses in the sentence beginning quam si qui (1 a) and shew in what relations they stand to each other.

3. What are the subjects and objects of *putant*, assequatur, peteret, relinquant, volunt? Account for the gender and number of quam, qui, quem, quod.

4. Give rules for the moods of sit, assequatur, dicam, esset, (a)—indigeant, sit, viguissent (b).

5. Explain the construction of virtute, praesidii, alterius, nihil, amicis, opera, militiae.

6. In what mood and tense are the following verbs ? Proficisci, peteret, natam, arbitaretur, fingunt, tollere, parta, fit, colantur, viguissent. Give their principal parts.

7. a. Decline : quidam, opibus, domi, vis, locus, animal.

b. Compare : primum, humilem, minime, minimum, jucundum, maxime, plurimum, beneficentissimi.

8. Distinguish the meanings of the following words and give derivations: perpetuus, sempiternus, aeternus,—tumultus, bellum,—imago simulacrum, statua,—amplius, plus, magis,—memini, reminiscor, recordor. 9. When does a relative pronoun not agree with its antecedent in gender and number? Give the rules for the cases of nouns answering the questions where, whence, whither. Distinguish similis tui, similis tibi,—patiens laborum, patiens labores. What impersonal verbs govern the genitive ?

10. Translate into Latin—Caius freed his country from a tyrant, a thing which many have wished to do.—This entire world is rightly regarded as one commonwealth of mankind.—He repeats his sin who is not ashamed of it.—This, lastly, I particularly ask of you.—Antiochus constructed a moat six cubits deep and twelve wide.—Because it was now the close of day, the battle was not commenced; but when the greater part of the night had elapsed, they assail the camp of the enemy.

HISTORY OF GREECE .- FIRST AND SECOND YEARS.

1. Where was Greek ordinarily spoken in the fifth and in the first century B. C.? What dialects were used?

2. What were the causes of the Persian invasions of Greece? Give some account of the resistance made by the Greeks, and dates.

3. Describe the chief characteristics of the Athenian constitution in the time of Pericles.

4. What gave rise to the Peloponnesian war? What were the chief events in it, and what was the issue? Give dates.

5. Describe the Amphictyonic Council. What part did it play in the affairs of Greece in the time of Philip ?

6. Give the dates of Alexander's victories in the East and the results of each. How far did his conquests extend ? How were his dominions divided after the battle of Issus ?

7. Name the chief Greek Historians. Over what periods did their histories extend ?

8. Describe the Acropolis of Athens and the buildings on it.

9. Mention the schools of Philosophy in Greece; explain their names, and some of their principles. Mention the founders and when they lived.





SESSIONAL EXAMINATIONS, 1870.

THURSDAY, APRIL 14TH.

GREEK :- LUCIAN.-SELECT DIALOGUES.

FIRST YEAR.

PROFESSOR JOHNSON, M.A..... Examiner

1. Translate :--

(a) ΚΛΩΘΩ. φέρ ίδω τίς έστι. ΕΡΜΗΣ. Μεγαπένθης ὁ Λακύδου τύραννος. ΚΛΩΘ. 'Επίβαινε σύ. ΜΕΓ. Μηδαμῶς ὡ δέσποινα Κλωθοῖ. ἀλλά με προς ἱλίγον ἑασον ἀνελθεῖν. εἰτα σοι ἀυτόμολος ήξω, καλοῦντος μηδενός. ΚΛΩΘ. Τί ὅ' ἐστιν, οὐ χάριν ἀφικέσθαι θέλεις ; ΜΕΓ. Τὴν οἰκίαν ἐκτ. λέσαι μοι πρότερον ἐπίτρεψον ἡμιτελὴς γὰρ ὁ δόμος καταλέλειπται. ΚΛΩΘ. Ληρεῖς· ἀλλ' ἑμβαινε. ΜΕΓ. Οὐ πολὺν χρόνον ὡ Μοῖρα, αἰτῶ. μίαν με ἑασον μεῖναι τήνδε ἡμέραν, ἀχρις ἀν τι ἐπισκήψω τῆ γυναικὶ περί τῶν χρημάτων, ἐνθα τὸν μέγαν εἰχον θησαυρὸν κατορωρυγμένον. ΚΛΩΘ. 'Αραρεν' οὐχ ἀν τύχοις.

(b) KYN. Τὸ μὲν ὅλον, οὐδὲ λογων ἔδει· γνώση γὰρ αὐτὸν αὐτίκα μάλα ὅιος ἐστιν ἀπὸ τῶν στιγμάτων· ὅμως δέ, κἀυτὸς ἀποκαλύφω σοὶ τον ἄνδρα, κἀκ τοῦ λόγου δείξω φανερωτερον. οὐτοσὶ γὰρ ὁ τρισκατάρατος, ὁπόσα μὲν ἰδιώτης ὡν ἐπραξε, παραλείψειν μοι δοκῶ· ἔπεὶ δὲ τοὺς θρασυτάτους προσεταιρούμενος, καὶ δορυφόρους συυαγαγὰν, ἐπαναστὰς τῆ πόλει τύραννος κατέστη, ἀκρίτους μὲν ἀπέκτεινε πλείονας ἡ μυρίους.

2. What relations are denoted by the clauses?

δυ χάριν ἀφικέσθαι θέλεις· ἀχρις ἀν τι επισκὴψω * * * ἐνθα τὸν μέγαν εἶχον * * * οἰος ἐστιν ὁπόσα μὲν ἰδιώτης ὡν ἔπραξε. ἐπεὶ δὲ τοὺς * * * *

How would the relative adverbs and pronouns be translated into Latin ? What words are used in such clauses in Latin ?

3. In the sentence $\delta v \tau \sigma \sigma i \gamma \partial \rho \delta \tau \rho \iota \sigma \kappa a \tau d \rho a \tau \sigma c$, what are the subjects and the predicates of $\delta \pi \rho a \xi \varepsilon$ and $\pi a \rho a \lambda \varepsilon i \psi \varepsilon \iota v$? What are the subject and the predicate of the clause $\delta \kappa \varepsilon i \delta \delta \tau \sigma \delta \varsigma * * ?$

4 Parse, giving the rules for the cases: καλοῦντος μηδενός—τὴν οἰκίαν ἐκτελέσαι μοι πρότερον ἐπίτρεψον—μίαν με ἐασον μεῖναι τὴνδε ἡμέραν—τι ἐπισκήψω τῆ γυναικὶ. 5. Write the Voice, Mood and Tense, and principal parts of ίδω, ἀνελθεῖν, καταλέλειπται, ἕμβαινε, είχον, ἔδει, γνώση, δείξω, ἐπαναστάς, ἀπέκτεινε.

6. Give all the cases of Κλωθοί, σοί, γυναικί. ίδιώτης, ανδρα, πόλει.

7. Write down the Acc. singular and plural, in the three genders, of $\mu\eta\delta\epsilon\nu\delta\varsigma$, $\dot{\eta}\mu\tau\epsilon\lambda\eta\varsigma$, $\mu\dot{\epsilon}\gamma\alpha\nu$, $a\dot{\nu}\tau\delta\varsigma$, $\delta\nu\tau\sigma\varsigma$, $\pi\lambda\epsilon i\sigma\nu\alpha\varsigma$, $\mu\nu\rho i\sigma\nu\varsigma$.

8. Compare $d\lambda\eta\theta_{\beta\varsigma}$, $\pi\delta\lambda\psi\varsigma$, $\mu\epsilon\gamma a_{\varsigma}$, $\pi\rho\delta\tau\epsilon\rho\sigma\nu$, $\tau a\chi\psi\varsigma$, $\dot{\rho}d\delta\iota\sigma\varsigma$. When does the termination $\sigma\varsigma$ becomes $\omega\tau\epsilon\rho\sigma\varsigma$ in the compart? What adjectives have the same form for the masculine and feminine?

9. (a) Analyse these verbal forms, and name each part :— $i \epsilon \tau \iota \mu \eta \sigma a \mu \epsilon \nu$, $i \delta \delta \delta \delta \sigma \tau \sigma$, $\tau \epsilon \theta \eta \tau \iota$, $\mu \mu \nu \eta \sigma \kappa \omega$, $i \sigma \tau \eta \mu \iota$. (b) Write the earlier forms of these words :— $\tau \iota \sigma \tau \eta$, $i \lambda \iota \sigma \nu$ (3rd plural) $\lambda \epsilon \iota \sigma \nu$, $\mu \epsilon \nu \omega \nu$, $\delta \iota \delta \sigma \tilde{\nu} \varsigma$, $\delta \nu$, $i \epsilon \iota \mu \iota$, $\epsilon \tilde{\iota} \nu a \iota$.

10. Give the 3rd singular, 1 Aor. opt. Act., Pass. and Mid. of $\mu \ell \nu \omega$, " $\sigma \tau \eta \mu \iota$, $\phi \iota \lambda \ell \omega$, $\tau \rho \ell \pi \omega$.

Give the 2nd Aor., Act., Pass. and Mid of all the Moods of $\lambda \epsilon i \pi \omega$, $\tau \rho \epsilon \pi \omega$, $\delta i \delta \omega \mu$, $i \eta \mu$.



SESSIONAL EXAMINATIONS, 1870.

MONDAY, APRIL 18, 3 P.M.

MATHEMATICS .- FIRST YEAR.

ALGEBRA.

PROFESSOR C. MACDONALD, M.A..... Examiner.

1. Give the rule for the Division of Vulgar Fractions; and explain the reason of it in working this example : $\frac{3}{4}$ divided by $\frac{5}{6}$.

2. If a Vulgar Fraction, expressed in its lowest terms, be reduced to a decimal and result in a *circle*, the number of figures in the circle must be less than the denominator of the fraction. Also, this number is independent of the numerator.

- 3. Find the sum of $\frac{1}{a+b} + \frac{a+b}{a^2-ab+b^2} \frac{2(a^2+b^2)}{a^3+b^3}$.
- 4. Divide $x^4 81 y^4$ by x 3 y: and expand $(a + \frac{1}{2}b)^5$.

5. Multiply a^{m} by a^{n} ; also divide the former by the latter, and from this rule, deduce the meaning of the zero power and the *negative* and *fractional* powers of a.

6. Resolve into rational factors such of the following expressions as can be resolved; $a^2 \pm b^2$, $a^3 \pm b^3$, $a^4 \pm b^4$, $a^5 \pm b^5$.

7. Find the sum of $2\sqrt{8} + 5\sqrt{18} - \sqrt{98} - \sqrt{288}$, and the difference of $\sqrt{a^3 + 2 a^2 b + a b^2}$ and $\sqrt{a^3 - 2 a^2 b + a b^2}$.

8. Given $\frac{1}{2}(x-2) + \frac{1}{3}x = 20 - \frac{1}{2}(x-6)$, and also $\frac{1}{3}x^2 - \frac{1}{2}x = 9$; to find x in each case.

9. A can in 20 hours do a piece of work that takes B 30 hours to do it. After A had been working at it a certain time, he left off, and B finished it in 25 hours from the time A had begun it. How long did each work?

10. If the sum of two numbers be multiplied by the greater, the product is 104; and if their difference be multiplied by the less, the product is 15. What are the numbers ?

11. Show how to solve a Quadratic Equation without completing the square; describe also the method used sometimes in order to avoid fractions; illustrate by examples of your own.

• 12. Sum the infinite series, $a + ar + ar^2 + \&c., r$ being less than 1; and apply the result to find the value of the Decimal Fraction $\cdot 8134$, so as to show the reason of the common Arithmetical rule.

13. Assuming the usual notation, prove that the sum of an Arithmeti-

cal series is, $s = (a+l)\frac{n}{2}$, or $\left(2a + (n-1)d\right)\frac{n}{2}$.

14. The sum of *n* terms of the even numbers, 2, 4, 6, &c.: the sum of *n* terms of the odd numbers, 1, 3, 5, &c., $\therefore n + 1 : n$.



SESSIONAL EXAMINATIONS, 1870.

MONDAY, APRIL 18, 9 A.M.

MATHEMATICS .- FIRST YEAR.

GEOMETRY.

PROFESSOR C. MACDONALD, M.A......Examiner.

1. The greater side of a triangle has opposite to it the greater angle.

2. Straight lines that are parallel to the same straight line, are parallel to one another.

3. Parallelograms upon the same base and between the same parallels are equal to one another: (one fig:).

4. What is the difficulty in Euclid's axiom respecting parallel straight lines? State some of the forms of the axiom by which it has been attempted to avoid this difficulty.

5. ABC is a triangle, having C an obtuse angle, and AG is drawn perpendicular on BC produced; prove that AB^2 is greater than $AC^2 + CE^2$ by twice the rectangle BC·CG.

6. Prove, by the division of the straight line only, that if a straight line be divided into two parts, the square of the whole line is equal to the squares of its two parts, together with twice the rectangle contained by the parts.

7. If one circle touch another internally, the straight line joining their centres shall pass through the point of contact. Euclid's method of proof can be somewhat improved.

8. The straight line drawn from the extremity of the diameter of a circle at right angles to it, falls without the circle.

9. The opposite angles of a quadrilateral figure inscribed in a circle are together equal to two right angles.

10. Inscribe a regular quindecagon in a given circle.

11. ABC is an isosceles triangle having AB = AC, and AD is drawn to any point D in the base : prove

$AB^2 = AD^2 + BD \cdot CD.$

12. From a fixed point in the circumference of a circle, any number of chords is drawn : the locus of their middle points is a circle.

13. Describe a circle that shall pass through a given point and touch a given circle in a given point.

14. Of all equal triangles upon the same base, that which has the greatest vertical angle is the isosceles.





SESSIONAL EXAMINATIONS, 1870.

WEDNESDAY, APRIL 13.

LATIN .- SECOND YEAR.

LIVY: BOOK I, CHAP. 1-20.-HORACE: SELECT ODES.

PROFESSOR JOHNSON, M. A..... Examiner.

1. Translate:

a. Tum Sabinae mulieres, quarum ex injuria bellum ortum erat, crinibus passis scissaque veste, victo malis muliebri pavore, ausae se inter tela volantia inferre, ex transverso impetu facto, dirimere infestas acies, dirimere iras; hinc patres, hinc viros orantes, ne se sanguine nefando soceri generique respergerent: ne particidio macularent partus suos, nepotum illi, liberum hi progeniem. Si affinitatis inter vos, si connubii piget in nos vertite iras: nos causa belli, nos vulnerum ac caedium viris ac parentibus sumus. Melius peribimus, quam sine alteris vestrum viduae aut orbae vivemus. Movet res tum multitudinem, tum duces. Silentium et repentina fit quies. Inde ad foedus faciendum duces prodeunt: nec pacem modo, sed et civitatem unam ex duabus facieut.

> b. Hoe caverat mens provida Reguli Dissentientis conditionibus Foedis et exemplo trahentis Perniciem veniens in aevum.

Si non periret immiserabilis Captiva pubes. "Signa ego Punicis Adfixa delubris et arma Militibus sine caede," dixit,

" Derepta vidi ; vidi ego civium Retorta tergo brachia libero Portasque non clausas et arva Marte coli populata nostro.

Auro repensus scilicet acrior Miles redibit. Flagitio additis Damnum : neque amissos colores Lana refert medicata fuco, Nec vera virtus cum semel excidit Curat reponi deterioribus."

2. Analyse the sentence beginning Tum Sabinae mulieres into principal and subordinate clauses. Translate the first stanza of extract b according to another reading.

3. Turn ne se sanguine . . . progeniem into oratio recta,—Si affinitatis . . . sumus into oratio obligua.

4. Account for the cases of affinitatis, conditionibus, militibus, Marte, delubris. What relation is expressed by ad foedus faciendum? How else might the same relation be expressed? When does the Gerundive agree with a noun, and when does it govern one? What is the equivalent form in Greek?

5. Parse these verbal forms, and give their principal parts : ortum, passis, scissu, victo, ausae, dirimere, respergerent, vivemus, caverat, adfixa, retorta, populata, repensus, excidit.

6. Write short explanatory notes on spolia opina, Quirites, Janus, menses intercalares, Salii,—Danai genus infame, inclusam Danaen, concidit auguris Argivi domus ob lucrum, quantum distet ab Inacho Codrus.

7. Give a scheme of the Sapphic stanza. Scan the first stanza of extract b.

8. When is the relative pronoun followed by the Subjunctive mood? How is the want of a Past Active Participle and a Present Passive Participle supplied? When is *ut* followed by the Indicative mood, and when by the Subjunctive?

9. What events in Horace's life are known to us? What materials did Livy possess for writing his History? What period was covered by it? How much of it has come down to us?

10. Translate into Latin :- When Tanaquil had shown her almost lifeless husband to Servius, who had been hastily summoned, she grasps his right hand and begs him not to let his father-in-law's death go unrevenged. "The kingdom is yours, Servius," she says, "if you are a man; not theirs who have committed a most heinous crime by the hands of others. Rouse yourself and follow the gods as your guides, who have foretold that this head would be illustrious by the divine fire kindled round it. We have reigned though foreigners. Think of what you are, not of whence you are sprung.







