CALENDAR

AND

Examination Papers

OF

DALHOUSIE COLLEGE AND UNIVERSITY,
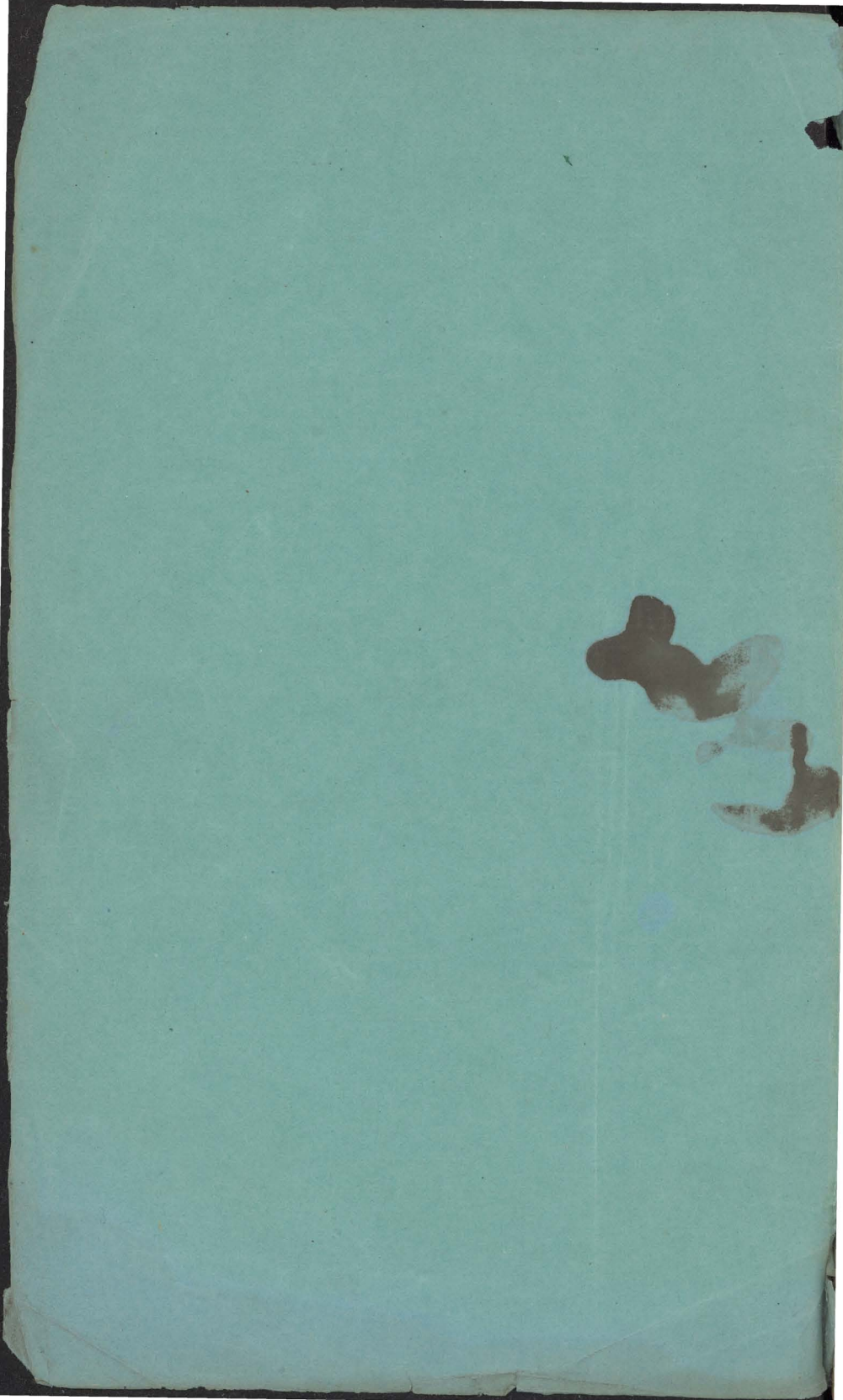
HALIFAX, NOVA SCOTIA.

SESSION 1878-9.

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NOTE.

THE extended Course of Scientific Instruction now estab-
lished in Dalhousie College has rendered necessary large
additions to the apparatus of the Chemical, and especially the
Physical Laboratory. The Board of Governors are gratified to
announce that they are enabled this season, through the timely
liberality of a few friends of the Institution, to devote the sum
of $2,500 to the purchase of new apparatus, which is being
selected, chiefly in Paris and Berlin, by Dr. Mackenzie, the
Professor of Physics, and is expected to arrive in Halifax before
the opening of the Session.

The Laboratories are being fitted up with a view to efficient
teaching in the various branches of Physics, Inorganic and
Organic Chemistry, and Natural Science, not only for the
accommodation of Students preparing for the Science Degree,
but also for such as may desire to devote themselves to the
study of special subjects or peculiar lines of research.

CONTENTS.

University Calendar.

1878-79.

WINTER SESSION.

1878.			
Oct.	25.	Fr.	Meeting of Board of Governors.
	30.	W.	Winter Session begins. Matriculation Examinations in Classics and Mathematics at 10 A. M.; continued at 3 P. M. Examination for Scholarships.
	31.	Th.	Matriculation Examinations continued, (English). Supplementary Examinations at 10 A. M.
Nov.	1.	Fr.	Meeting of Senate at 10 A. M. Matriculation, Registration, and Library Tickets issued at 11 A. M.
	4.	Mo.	Classes opened. Class Tickets issued. Entrance Examinations in Ancient History and Geography for Second and Third years at 3 P. M.
	5.	Tu.	Anniversary of opening of the College in 1863.
	6.	W.	Meeting of Senate at 4 P. M.
	13.	W.	Convocation at 3 P. M. Opening Address by Professor DeMill.
	14.	Th.	Meeting of Senate at 1 P. M.
Dec.	3.	Tu.	Final Matriculation and Supplementary Examinations at 3 P. M.
	23.	Mo.	Christmas Vacation begins.
1879.			
Jan.	3.	Fr.	Class Lectures resumed.
	6.	Mo.	Supplementary Examinations in Ancient History and Geography at 3½ P. M.
	7.	Tu.	Meeting of Senate at 1 P. M.
	16.	Th.	College established, 1823.
	24.	Fr.	Meeting of Board of Governors.
Feb.	4.	Tu.	Meeting of Senate at 1 P. M.
	26.	W.	Ash Wednesday No Lectures.
March	4.	Tu.	Meeting of Senate at 1 P. M.
	21.	Fr.	George Ramsay, Earl of Dalhousie, founder of the College, died 1838.
	24.	Mo.	Last day for receiving M. A. Theses.
April	1.	Tu.	Meeting of Senate at 1 P. M.
	3.	Th.	Last day of Class Lectures. Last day for returning Library Books. Meeting of Senate at 4 P. M.
	9.	W.	Examinations in Latin, 9 A. M. Examinations in Honour Classics, Honour English, and Extra Latin, 3 P. M.
	10.	Th.	Examinations in Logic, Metaphysics, Ethics, and Honour Classics, at 9 A. M.
	11.	Fr.	Good Friday. Holiday.
	12.	Sat.	Examinations in Greek at 9 A. M. Honour Classics, Honour English, Extra Greek, 1st and 2nd years, at 3 P. M.
	14.	Mo.	Examinations in Mathematics, Mathematical Physics 3rd and 4th years, Honour Classics, and Honour English, at 9 A. M.
	15.	Tu.	Examinations in Rhetoric and History, at 9 A. M. Examinations in Early English History and Anglo-Saxon, at 3 P. M.
	16.	W.	Examinations in Experimental Physics 3rd year, Honour Classics, and Honour English, at 9 A. M.
	17.	Th.	Examinations in Chemistry, Constitutional History, and English Language, at 9 A. M., Honour Classics and Honour English, at 3 P. M.
	18.	Fr.	Examinations in French and German, and Extra Mathematics 2nd year, at 9 A. M.; continued at 3 P. M.
	19.	Sat.	Examinations in Honour English.
	21.	Mo.	Competition for "Young" Elocution Prizes, 10 A. M. Meeting of Senate, 11 A. M.
	22.	Tu.	Results of Examinations declared.
	23.	W.	Annual Meeting of Alumni Association, 10 A. M. Meeting of Convocation, 3 P. M. Winter Session ends.

SUMMER SESSION.

April	28.	Mo.	Summer Session opens. Registration, 10 A. M. Meeting of Senate at 11 A. M.
May	9.	Tu.	Lectures begin.
	23.	Fr.	Foundation Stone of College laid, 1820.
June	3.	Tu.	Meeting of Senate at 1 P. M.
	20.	Fr.	Accession of Queen Victoria.
	21.	Sat.	Halifax settled, 1749.
July	9.	W.	Lectures close.
	10.	Th.	Examinations.
	11.	Fr.	Examinations. Session ends.

Dalhousie College and University.

BOARD OF GOVERNORS.

HON. SIR WILLIAM YOUNG, Knight, Chief Justice, *Chairman*.
HON. CHARLES TUPPER, C. B., M. D., M. P.
HON. J. W. RITCHIE, Judge, Supreme Court of Nova Scotia.
HON. S. L. SHANNON, Q. C.
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WILLIAM J. STAIRS, ESQ., Vice-Chancellor of the University of Halifax.
HON. JEREMIAH NORTHUP, Senator.
HON. ALFRED G. JONES, M. P., Minister of Militia.
WILLIAM P. WEST, ESQ.
M. H. RICHEY, ESQ., Mayor of Halifax, *ex officio*.
HERBERT A. BAYNE, M. A., PH. D., Pres. Alumni Association, *ex officio*.

GEORGE THOMSON, ESQ., *Treasurer*.
WILLIAM M. DOULL, ESQ., *Secretary*.

SENATE OF THE UNIVERSITY.

VERY REV. JAMES ROSS, D. D., *Principal*.
REV. WILLIAM LYALL, LL. D.
CHARLES MACDONALD, M. A., *Secretary*.
JOHN JOHNSON, M. A.
GEORGE LAWSON, PH. D., LL. D.
JAMES DEMILL, M. A.

Dalhousie College and University.

FACULTY OF ARTS.

VERY REV. PRINCIPAL ROSS, D. D., *Professor of Ethics and Political Economy.*
REV. WILLIAM LYALL, LL. D., *Professor of Logic and Metaphysics.*
CHARLES MACDONALD, M. A., *Professor of Mathematics.*
JOHN JOHNSON, M. A., *Professor of Classics.*
GEORGE LAWSON, PH. D., LL. D., *Professor of Chemistry and Mineralogy.*
JAMES DeMILL, M. A., *Professor of History and Rhetoric.*
JOHN J. MACKENZIE, M. A., PH. D., *Lecturer in Natural Philosophy.*
JAMES LIECHTI, ESQ., *Tutor in Modern Languages.*

DEPARTMENT OF SCIENCE,
In connection with the Faculty of Arts.

VERY REV. PRINCIPAL ROSS, D.D., *Professor of Political Economy.*
CHARLES MACDONALD, M. A., *Professor of Mathematics.*
JOHN JOHNSON, M. A., *Professor of Latin.*
GEORGE LAWSON, PH. D., LL. D., *Professor of Inorganic Chemistry, and Biological Science.*
JAMES DeMILL, M. A., *Professor of English.*
JAMES LEICHTI, *Professor of French, German and Spanish.*
JOHN J. MACKENZIE, M. A., PH. D., *Professor of Experimental and Mathematical Physics.*
HERBERT A. BAYNE, M. A., PH. D., *Professor of Organic Chemistry and Chemical Analysis.*
REV. DAVID HONEYMAN, D.C.L., *Professor of Geology, Palæontology, Mineralogy.*

INCORPORATED ALUMNI.

HERBERT A. BAYNE, M. A., PH. D., *President.*
JOHN H. CAMERON, B. A., *Vice-President.*
JAMES McG. STEWART, B. A., *Secretary.*
JAMES FORREST, M. A., *Treasurer.*

ROBERT SEDGEWICK, B. A.,   } *Executive Committee,*
FRANK H. BELL, B. A.,   {   *(with Officers).*
JOHN WADDELL, B. A.

JOHN WILSON—*Janitor.*

FACULTY OF ARTS.

§ I.—WINTER SESSION.

The Winter Session of 1878–9 will commence on Wednesday, Oct. 30th, 1878, and end on Wednesday, April 23rd, 1879.

§ II.—ADMISSION OF STUDENTS.

Students may enter the College,

1. As Undergraduates, with the intention of applying for a University Degree at the end of their course ; or

2. As General Students who do not look forward to a University Degree.

The usual course for Undergraduates extends over Four Winter Sessions. Students taking this Course are required to pass the Matriculation Examination of the First Year (see § III), and take the classes prescribed for their respective Courses.

But students may shorten their attendance by one year, by passing the Matriculation Examination of the Second Year (see § III), and taking the usual Undergraduate Course for the Second, Third and Fourth Years. Undergraduates of the First Year who have forfeited their standing at the Sessional Examinations will not be allowed to take the Three Years Course.

The Matriculation Examinations this year will begin on Oct. 30th, at 10 o'clock, A. M. Candidates are expected to bring their own writing materials, except paper.

General Students are not required to pass a Matriculation Examination, and may attend such classes as they choose.

No person can be admitted as an Undergraduate after ten days from the opening of the classes, without the special permission of the Senate.

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

Students that have passed the Matriculation Examination at the University of Halifax, are admitted as Undergraduates without further examination.

§ III.—MATRICULATION EXAMINATIONS.

FOR THE FIRST YEAR.—*(Four Years Course.)*

The Examinations are partly oral and partly written ; the subjects for entrance into the First Year of the Course are :

1.   IN CLASSICS—Latin Grammar, Greek Grammar, one Latin, one Greek Author, such as :

Latin.—Cæsar, one book ; Virgil, one book ; Cicero, two Catilinarian Orations, or *De Senectute*, or *De Amicitiâ* ; 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 of Geometry, Book I. ; Algebra, Simple Rules, and Simple Equations of one unknown quantity, not involving Surds.

III.   In ENGLISH.—Grammar ; History of England ; Geography ; Composition.

Special stress will be laid upon accuracy in Latin and Greek Grammar.

The subjects in which Candidates for Professors' Scholarships will be examined will be prescribed from year to year.   For Sessions 1878-9, 1879-80. they are the same as those for Matriculation in Arts at the University of Halifax.   (See § X).

FOR THE SECOND YEAR.—*(Three Years Course.)*

In order to matriculate for the Three Years Course, a Student must pass an Examination,—

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

2.   In the *Mathematics* of the first year as specified in § XV.

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

4.   In Roman History and Ancient Geography, as specified in § XV.

§ IV.—COURSES OF STUDY.

COURSE FOR DEGREE OF B. A.

First Year.—(1) Latin.   (2) Greek.   (3) Mathematics.   (4) English Language and Rhetoric.

For First or Second Class at Sessional Examinations in Latin or Greek extra work is prescribed, and special stress is laid upon accuracy in Grammar.   (See § XV.)

For First or Second Class at Sessional Examinations in Rhetoric extra work is required.

Second Year.—(1) Latin. (2) Greek, (3) Mathematics. (4) Chemistry. (5) Experimental Physics. (6) Logic and Psychology.

For First or Second Class in Latin or Greek, extra work is prescribed, and for First or Second Class in Mathematics an additional hour a week is required. (See § XV.)
Undergraduates of the Second Year are required to pass an Examination in Roman History and Ancient Geography, on the first Monday of the Winter Session. (See § XV.)

Third Year.—(1) Latin. (2) Mathematical and Experimental Physics. (3) Metaphysics. (4) French or German. (5) Greek or Chemistry.

Undergraduates of the Third Year are required to pass an Examination in Grecian History and Ancient Geography on the first Monday of the Winter Session. (See § XV.)

Fourth Year.—(1) Latin. (2) Ethics and Political Economy. (3) History. (4) French or German. (5) Mathematical Physics, or Greek.

A Student must take the same Modern Language as part of his Undergraduate Course in the Third and Fourth Years.
For First and Second Class in History extra work is required.

§ V.—HONOUR COURSES.

Honour Courses are intended for Students whose tastes and ability lead them to prosecute special subjects of the Curriculum, and remissions of classes are granted to those studying any such Course.

Honour Courses are provided in the following subjects :— (1) Classics ; (2) Mathematics and Physics ; (3) Mental and Moral Philosophy ; (4) History, Political Economy, and English Literature and Language. Instruction of an advanced kind is provided in these subjects during the third and fourth years of the Curriculum.

Examinations in these Courses are held at the final Examinations for the Degree of B. A. ; and a Student passing First or Second Class in any of the above subjects obtains the Degree of B. A. with First or Second Rank Honours in such subjects. But First Rank Honours shall not be awarded to any one who has not passed First Class in the corresponding subjects of the Ordinary Course of the Fourth Year ; nor Second Rank Honours to one who has not passed Second Class in the Ordinary.

Students studying for Honours must attend the Honour Lectures of their respective Courses, and their progress must be satisfactory to their Professors. Students who intend to take the Honour Course in *Mental and Moral Philosophy*, must give notice of their intention to the Secretary of Senate before the close of the Lectures of their Third Year.
No Student will be allowed to enter on an Honour Course who has not stood in the First or Second Class at the previous Examination in the corresponding part of the Ordinary Course.

A Student taking an Honour Course, but failing to obtain Honours, will receive the Ordinary Degree, if his Examination in the Course be approved of.

A Student of the Third Year, for Honours, (see § XVI),

In Classics, may omit the Mathematical Physics of the year;

In Mathematics and Physics, in Mental and Moral Philosophy, in History, Political Economy, &c., may omit the fifth subject of the Ordinary Course, (see § IV).

A Student of the Fourth Year studying for Honours,

In Classics, may omit Physics, and either Ethics and Political Economy or History ;

In Mathematics, may omit either Latin or Ethics and Political Economy ;

In Mental and Moral Philosophy, or in *History, Political Economy, &c.*, may omit the fifth (selective) subject of the Ordinary Course, (see § IV).

§ VI.—SUMMER SESSION.

The Summer Session will commence on Monday, 28th April, 1879, and close on Friday, 11th July.

Classes will be opened for Instruction in the following subjects.

Classics.	Optics.
Theory of Equations.	Chemistry.
Logic.	English Literature.
Modern Languages.	

Further details of the Courses of Instruction in the Summer Session, and of arrangements connected therewith, will be announced shortly after the opening of the Winter Session, November, 1878.

§ VII.—FEES.

The Fee to each Professor or Lecturer 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.

An Undergraduate in Arts pays only one fee during his Course to the Professors of Chemistry, and of Logic, and to the Tutor in Modern Languages.

An Undergraduate who has completed two years of his course may attend the Classics and Mathematics during the remainder of his Undergraduate Course without the payment of additional Fees.

Mathematical and Experimental Physics constitute a separate class.

General Students pay a fee for every class they attend, and Undergraduates taking Classes in addition to the prescribed Curriculum pay as General Students.

Practical Chemistry, three months course (optional), fee, *six dollars.* Students taking this class are required to provide their own materials. The use of the larger articles of apparatus will be given in the Laboratory free of expense.

In addition to the 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 also required, at the beginning of each Session, to pay a Library 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, no Students being allowed to attend a Class without them.

The total Fees of Undergraduates, who take the Ordinary B.A. Course in Arts, are as follows :—

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Classes of First Year, with Library and Matriculation Fees..$21 00
   "      Second Year, with Library Fee........................... 25 00
   "      Third    "           "      ........................... 13 00
   "      Fourth   "           "      ........................... 13 00
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§ VIII.—GRADUATION.

DEGREE OF B. A.

The Degree of B. A. may be obtained by passing the proper Matriculation Examination, attending the prescribed Courses of Lectures, and passing the Sessional Examinations of the several years.

Undergraduates have also to pass the Entrance Examinations of the Second and Third Years, as set forth in § IV.

The fee for Diploma, payable before the Final Sessional Examination, is *five dollars.* Fee returned in case of failure at the Examination.

DEGREE OF M. A.

A Bachelor 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 ; subject of Thesis to be first submitted to the Senate.

Fee for Diploma, which must accompany the Thesis, *twenty dollars*, except in case of those who entered as Undergraduates prior to 1869, who pay *five dollars.* Thesis is to be handed in on or before the 24th March.

§ IX.—REGULATIONS FOR EXAMINATIONS.

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

2. If any Undergraduate fail to pass in any subject at the Sessional Examinations, he will be allowed a Supplementary

Examination on the first Thursday of the following Winter Session, or of a subsequent Winter Session, by the permission of the Senate, on giving notice to the Secretary of the Senate at or before the opening of the Winter Session ; but failure in more than two subjects will involve the loss of the year.

N. B.—In the application of this rule, Mathematics will be reckoned as *two* subjects, and Latin and Greek each *one* subject.

3.   In all cases, a Student who presents himself for Supplementary Examination on any day except that specified in the rule, will be required to pay an extra fee of *two dollars.*

4.   Undergraduates of the Second and Third Years who fail to present themselves for the Entrance Examinations in History and Ancient Geography on the first Monday of the Winter Session, may, on payment of a fine of *two dollars,* and on giving notice to the Secretary of the Senate at or immediately after the opening of the Winter Session, have another day appointed them for such Examinations.

5.   Students are forbidden to bring any book or manuscript into the Examination Hall, unless by direction of the Examiner, or to give or receive assistance, or to hold any communication at the Examinations.   If a student violate this rule, he will lose his Sessional Examinations for the year ; and it shall be at the discretion of the Senate whether he be allowed Supplementary Examinations.

6.   Students who pass the Examinations in the several subjects of the respective years are arranged in three classes, First Class, Second Class, and Pass, according to the merit of their answers in these subjects.

§ X.—PROFESSORS' SCHOLARSHIPS.

Two Scholarships, entitling to free attendance on all the Classes of the Undergraduate Course, as long as the holders maintain a First or Second Rank at the Sessional Examinations, are offered by the Professors for competition this year ; the competition to take place at the Matriculation Examination.

The subjects of Examination for these Scholarships are the same as those for Matriculation in Arts at the University of Halifax, viz. :—

Latin for 1878 :   *Cæsar*, Gallic War, Book II ; *Virgil*, Æneid, Book IV.
  "   for 1879 :   *Cicero*, First Oration against Catiline ; *Virgil*, Æneid, Book II.
Greek for 1878 :   *Xenophon*, Anabasis, Book II.
  "   for 1879 :   *Xenophon*, Cyropædia, Book I.
Algebra : as far as Simple Equations and Surds.
Geometry : First and Second Books of Euclid.
English : Grammar, Analysis, Outlines of English and Canadian History, and General Geography.

§ XI.—PRIZES, AND CERTIFICATES OF MERIT.

The University Prizes.

These Prizes will be awarded to those Students who stand first in the several subjects at the Sessional Examinations.

The St. Andrew's Prize.

This Prize will be awarded this year to the Undergraduate who shall stand first in Classics at the Sessional Examinations of the Second Year.

Young Prizes.

Two Elocution Prizes of $20 and $10 respectively, are this year offered by the Hon. Sir William Young, Chief Justice of Nova Scotia, and are open for competition to all Arts Students. These prizes will be competed for at the close of the Winter Session. A Student to whom one of these Prizes has been awarded is disqualified for subsequent competition.

North British Society Bursary.

A Bursary, of the annual value of $60, has been founded in connection with Dalhousie College by the North British Society of Halifax, to be competed for at the Sessional Examinations of the Second Year's Course in Arts, and held by the successful competitor for two years, namely, during the Third and Fourth Years of his Undergraduate Course in Arts. 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, 1880, at the Sessional Examination. In awarding this Bursary, Classics, Mathematics, and Chemistry will be reckoned each 150 ; Logic, 100.

The Waverly Bursary.

This Bursary, of the value of $60 annually for two years, has been founded by an unknown Benefactor, whose object in so doing is to encourage the studies of the Arts Curriculum, especially Mathematics. It alternates with the North British Society Bursary. The next competition will be at the Sessional Examinations of the Second Year in Arts in April, 1879; when the Bursary will be awarded to the Student who shall stand highest at the Examinations. The scale of reckoning will be Mathematics, 200 ; Classics, Chemistry, each 150 ; Logic, 100.

The Alumni Association Prizes.

The Alumni Association offer this year *Two* Prizes to Students of the First Year. A First Prize of $30 : a Second of $20.

These Prizes will be awarded to the two Students who stand highest at the Sessional Examinations of the First Year; provided they have passed in all the requisite subjects of their year. The marks will be reckoned according to a scale defined by the Association, which will be published at the beginning of the Session.

THE DR. AVERY PRIZE.

A Prize of the value of $25 is offered by Dr. Avery for competition to the Students of the Fourth Year, who are not studying for Honours. It will be awarded to the Student who stands highest at the Sessional Examinations.

CERTIFICATES OF MERIT.

Certificates of merit of the First or Second Rank will be given to Undergraduates who have respectively obtained a First or Second Class standing in the aggregate of the branches of study proper to their year.

§ XII.—ATTENDANCE AND CONDUCT.

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

2. Attendance upon all 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 work of the class, and will note as absent those who enter thereafter, unless satisfactory reasons be assigned.

5. Absence without sufficient excuse, or lateness, or 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 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 person or persons 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 and 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 for holding Certificates 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 worship regularly, in one of the city churches or chapels.

§ XIII.—THE LIBRARY.

The Library consists of a careful selection of the most useful books 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 2000 volumes. All Students are entitled to the use of the Books, on payment of the annual fee of *one dollar*.

§ XIV.—ALUMNI ASSOCIATION.

This Association, incorporated by Act of the Legislature, has now entered upon the eighth year of its existence, and gives satisfactory promise of future prosperity. The ends it has in view are, to strengthen the bonds of fellowship among the Alumni, to unite them in the endeavour to promote Higher Education in these Provinces, and specially to extend the influence and usefulness of their *Alma Mater*.

Hitherto the only assistance they have lent the University has been the furnishing of Prizes for competition to Undergraduates at the Sessional Examinations, (see § XI), but it is expected that the time is not distant when the Association shall have developed into an important adjunct to the University. It is intended, in the course of the present year, to devote a portion of the Funds of the Association to the purchase of scientific Apparatus for the College. Since the recent enlargement of the Board of Governors, the Association is represented on the Board by their President, and, thus has some direct share in the University management. The Executive Committee is meantime empowered to take such steps as shall seem fitted to promote the purposes of the Association.

Undergraduates of more than two years standing, and General Students who have attended Classes for at least two years, are qualified for admission to the Association ; and it is hoped that before long every Graduate at least will have been enrolled in the List of Members.

The Annual Meeting of the Association takes place on the morning of Convocation Day, at the close of the Winter Session.

§ XV.—ORDINARY COURSE FOR B. A.

CLASSICS.

LATIN.

FIRST YEAR.

Cicero : First Oration against Catiline.
    *Fourth Oration against Catiline.
Composition : Principia Latina, Part IV.

SECOND YEAR.

Livy : Book I, chaps. 1-30.
Horace : Odes, Book III ; *Book IV.
Composition : Principia Latina, Part IV.

† THIRD AND FOURTH YEARS.

Horace : Satires, Book I, 3, 4, 5, 6, 9 ; Book II, 6, 7, 8.
Tacitus : Agricola and Germania.
Composition : Principia Latina, Part V.
Philology : Outlines of Comparative Philology.   Text Book :
    Peile's Primer.

GREEK.

FIRST YEAR.

Xenophon : Cyropædia, Part of Book III.
    *Cyropædia, Remainder of Book III.
Grammar : Hadley's Greek Grammar.

SECOND YEAR.

Xenophon : Memorabilia, Part of Book I.
    *Memorabilia, Remainder of Book I.
Homer : Iliad, Book VI.
Composition : Initia Græca, Part III.

† THIRD AND FOURTH YEARS.

Euripides : Alcestis.
Æschylus : Prometheus Vinctus.
Composition : Initia Græca, Part III.

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* Students seeking a First or Second Class at the Sessional Examinations are examined in this additional work, which is not read in class.

† Passages taken from works not previously named will be set for translation, to Students seeking a First or Second Class at the Sessional Examinations in these years.

‡ ANCIENT HISTORY AND GEOGRAPHY.

SECOND YEAR.—History of Rome, to B. C. 31. Geography of Italia, Sicilia, Gallia, Hispania.

THIRD YEAR.—History of Greece to the death of Alexander. Geography of Græcia, Africa, Asia.
Books recommended: Liddell's Student's History of Rome ; Smith's Student's or Cox's History of Greece ; Pillans' Classical Geography.

MATHEMATICS AND PHYSICS.

FIRST YEAR.

ARITHMETIC.—Revision of the Theory of Proportion, Vulgar and Decimal Fractions.

ALGEBRA.—Common Measure, Involution, Evolution, the Arithmetical Extraction of Roots, Fractions, Equations of the First and Second Degree, Proportion, Inequalities, Variation, Progressions.

GEOMETRY.—First Book of Euclid revised ; Second, Third and Fourth Books ; Definitions of Fifth, and Sixth Book to the Eighth Proposition, with Geometrical Exercises and Practical applications. Conic Sections Geometrically treated—The Parabola, as in Drew's Conic Sections.

PLANE TRIGONOMETRY.—Solution of Plane Triangles.

SECOND YEAR.

GEOMETRY.—Sixth Book of Euclid finished : Geometrical Exercises continued ; Geometrical Drawing.

PLANE TRIGONOMETRY.—Circular and Gradual Measure ; Functions of sum and difference of angles, &c. ; Relations of the sides and angles of triangles ; Mensuration of Heights and Distances ; Elementary Problems in Navigation ; Use of Logarithms.

ALGEBRA.—Simple Indeterminate Equations ; Binomial Theorem ; Properties of Logarithms ; Compound Interest ; Annuities.

EXTRA.

GEOMETRY.—21 Propositions of the Eleventh Book of Euclid ; Geometrical Exercises.

TRIGONOMETRY.—Extension of Ordinary Course ; Spherical Trigonometry.

ALGEBRA.- Permutations, Combinations, Probabilities, Life Assurance, Investigation of Binomial Theorem and Theory of Logarithms ; Indeterminate Co-efficients, with application to Expansions and Series.

Books recommended : For First Year : Hamblin Smith's (Miller & Co.) Elements of Geometry, or Colenso's or Todhunter's ; Colenso's or H. Smith's Algebra. For Second Year : Colenso's Algebra, 2nd part ; Colenso's Trigonometry, 1st part ; Chambers' Logarithmic, &c. Tables.

EXPERIMENTAL PHYSICS.

(*Third Year.*)—Text Book ; Balfour Stewart's Lessons in Elementary Physics.

MATHEMATICAL PHYSICS.

(*Third Year.*)—Text Book ; Goodeve's Principles of Mechanics.
(*Fourth Year.*)—Text Books ; Galbraith and Haughton's Manuals of Astronomy and Optics ; Phear's Hydrostatics (or Galbraith and Haughton's.)

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‡ The Examinations in these subjects will be held at the beginning of the Winter Session. (See § IV.)

ETHICS.

(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; Senior's Political Economy.

LOGIC AND PSYCHOLOGY.

(Second Year.)—Text Books: Sir William Hamilton's Lectures on Logic, Prof. Lyall's "Intellect, the Emotions, and the Moral Nature."

METAPHYSICS AND ÆSTHETICS.

(Third Year.)—Text Books: Sir William Hamilton's Lectures on Metaphysics. Mansel's Metaphysics. Lewes' Biographical History of Philosophy. Cousin on The Beautiful. Alison's Essays on the Nature and Principles of Taste.

CHEMISTRY.

(Second year.)—Objects of the Science, Nomenclature, Symbolic Notation, Atomic Numbers, Equivalent Numbers, Formulæ, Equations.

PRINCIPLES OF CHEMICAL PHILOSOPHY.—Laws of Combination by weight and by volume. The Atomic Theory. Equivalence or Saturating power of Elements. Radicals or Residues. Relations of Heat, Light, Magnetism and Electricity, to Chemical Affinity.

CHEMISTRY OF ELEMENTARY BODIES AND THEIR COMPOUNDS (INORGANIC). —Processes of production and manufacture illustrating chemical laws. Classification of Minerals. Reduction of Ores. Outline of the modes of analysis of Minerals, Waters, Poisons, &c.

ORGANIC CHEMISTRY.— Principles of Classification. Organic Series. Comparison of the principal series of the Fatty Group, viz.: Parafines and Olefines; Monatomic, Diatomic, Triatomic and Hexatomic Alcohols and Ethers; Monatomic, Diatomic and Tetratomic Acids; Aldehydes, Cyanogen. Comparison of Amines, Diamines, Triamines, Artificial Bases, Alkaloids, Phosphines, Stibines, Arsines, Amides (including Urea and its derivatives), Uric Acid, Colouring Matters. Outline of Animal Chemistry—Tissues, Blood, Milk, Urine; Respiration, Digestion, Nutrition.

(Third year.)—Subjects same as preceding. The general exercises in Theoretical Chemistry will be more elaborate, the equations and calculations more difficult, and the questions in Organic Chemistry will require an intimate acquaintance in detail with the chemical constitution and properties of all the important series of Organic Compounds.

RHETORIC.

FIRST YEAR.

The Course includes Style, Invention, Method, the General Departments of Literature. Narration, Description, Exposition, Oratory, Debate.

Exercises in English Composition, daily.

Essays on Stated Subjects, weekly.

Text Book: DeMill's Elements of Rhetoric.

Books recommended: Quintilian's Institutes of Oratory, Whately's Elements of Rhetoric, Campbell's Philosophy of Rhetoric.

ELOCUTION.

FIRST YEAR.

Exercises every week, after Christmas Holidays.

Books recommended : Porter's Analysis of the Principles of Rhetorical Delivery. Russell's Elocution. Sargent's Standard Speaker. Lewis, How to Read. Nova Scotia Readers, No. 6, and No. 7.

ENGLISH LANGUAGE.

FIRST YEAR.

ANGLO-SAXON.—Text Books : Comparative Grammar of the Anglo-Saxon Languages, F. A. Marsh, LL. D. Anglo Saxon Reader, F. A. Marsh, LL. D.

EARLY ENGLISH.—Text Book : Specimens of Early English, by R. A. Morris, LL. D., and W. W. Skeat, M. A., Part Second.

Books recommended : Earle's Philology of the English Tongue. Smith's Student's English Language.

ENGLISH LITERATURE.

FIRST YEAR.

Text Books : Shakespeare's Macbeth. Bacon's Essays, 1-28.

ENGLISH GRAMMAR.

FIRST YEAR.

Text Books : Maetzer's English Grammar. Angus' Handbook.

HISTORY.

FOURTH YEAR.

1. *General Course.*

Text Books : Gibbon's Decline and Fall of the Roman Empire. Milman's History of Latin Christianity. Greene's History of the English People. Students' History of France. Students' History of Germany. Sismondi's Italian Republics. Hallam's Middle Ages. Taylor's Modern History.

2. *Special Course.*

History of Canada. Text Books : Garneau's History of Canada, Bell's translation. Murdoch's History of Nova Scotia. Archer's History of Canada.

CONSTITUTIONAL HISTORY.

FOURTH YEAR.

Text Books : Stubbs' Constitutional History. Hallam's Middle Ages, (Chapters on the English Constitution). Hallam's Constitutional History. May's Constitutional History.

MODERN LANGUAGES.

FRENCH.—*(Third Year.)*—Pujol's Grammar, (first part).—Scribe's "Diplomate."

Translation : Charles Lamb's "Tales from Shakespeare." Dictation and Parsing.

GERMAN.—*(Third Year.)*—Otto's German Conversation Grammar.—Adler's Reader.—Schiller's "Wilhelm Tell."—Dictation, Analysis, Composition.

FRENCH.—*(Fourth Year.)*—Pujol's Grammar, (second part).—Moliere's "L'Avare."

Translation : "One of Sheridan's Plays." An extempore and a prepared Composition every fortnight.

GERMAN.—*(Fourth Year.)*—Otto's German Grammar.—Adler's Reader, (4th and 5th parts).—Schiller's "Wilhelm Tell," (continued) ; or, Gœthe's "Hermann und Dorothea."

Translations from English writers. A written Composition every fortnight.

§ XVI.—HONOUR COURSES.

I.—CLASSICS.

LATIN.—Plautus : Miles Gloriosus.
Terence : Heautontimoroumenos.
Virgil : Georgics, Books I., IV.
Horace : Epistles, Books I., II., Ars Poetica.
Juvenal : Satires, VII., VIII., XIV.
Cicero : Tusculan Questions, Book I.
Tacitus : Germania, Agricola.
GREEK.—Æschylus : Septem contra Thebas.
Sophocles : Œdipus Rex.
Homer : Iliad XVIII., XXIV.
Thucydides : Book II.
Plato : Phædo.
Demosthenes : De Corona.
COMPOSITION.—Latin Prose.
PHILOLOGY.—Müller's Science of Language, Vols. I., chaps. 1-7. Peile's Introduction to Greek and Latin Etymology. Brachet's Historical French Grammar. Class Lectures.

LITERATURE.—Müller and Donaldson's History of Ancient Greek Literature, Vols. I., II. ; Roman Classical Literature (Brown's) ; Theatre of the Greeks (Donaldson), Selected portions.

II.—MATHEMATICS AND MATHEMATICAL PHYSICS.

TRIGONOMETRY.—DeMoivre's Theorem, and Angular Analysis. Theory of Equations, with Horner's Method of Solution, and Sturm's Theorem.

ANALYTICAL GEOMETRY.—The Straight Line, the Circle, Parabola, Ellipse, Hyperbola. The Locus of the General Equation of the Second Degree between two Variables.

DIFFERENTIAL CALCULUS. — Differentiation ; Theorems of Leibnitz, Maclaurin, and Taylor ; Maxima and Minima of Functions of one Variable ; Expansion of Functions of Two Variables ; Maxima and Minima of such Functions ; Radius of Curvature, Osculating Circle ; Envelopes ; the tracing of Curves by means of their Equations.

INTEGRAL CALCULUS.—Integration of Simple Forms ; Integration by Parts, and Formulæ of Reduction. Integration by Substitution, &c. Applications to determine Lengths of Curves, Surfaces, Volumes, &c. ; Differential Equations, (selected course,) Application to Physical Investigations : *e. g.*, Centre of Gravity, Attraction, Central Forces, &c.

BOOKS RECOMMENDED—(In order of Preference.)

Todhunter's Spherical Trigonometry.
Todhunter's Plane Trigonometry or Colenso's (2nd part.)
Todhunter's, Puckle's, or Salmon's Conic Sections.
Hall's, Hind's, or Todhunter's Differential and Integral Calculus.
Todhunter's or Young's Theory of Equations.
Boole's Differential Equations.

EXPERIMENTAL PHYSICS.

Balfour Stewart's Treatise on Heat.
Optics by Sir David Brewster.
Fleming Jenkin's Electricity and Magnetism.

III.—MENTAL AND MORAL PHILOSOPHY.

LOGIC.

Sir William Hamilton's Lectures on Logic. Whately's Logic, Books II., III., IV. Mill's Logic, I., II. Bacon's Novum Organon.

METAPHYSICS AND ÆSTHETICS.

Descartes' Principles of Philosophy. Reid's Essays, VI. Sir William Hamilton's Lectures on Metaphysics. Sir William Hamilton's Philosophy of Perception and Philosophy of the Unconditioned. Lewes' Biographical History of Philosophy. Cousin's Philosophy of the Beautiful. Alison's Essays on the Principle of Taste. Burke on the Sublime and Beautiful.

ETHICS.

Mackintosh's Dissertation on the Progress of Ethical Philosophy.
Butler's Sermons on Human Nature, with the Preface and the Dissertation on the Nature of Virtue.
Smith's Theory of Moral Sentiments.
Thomson's Christian Theism.
Aristotle's Ethics, Book I., III., VI., X., (in English.)

IV.—HISTORY, ENGLISH LANGUAGE, AND LITERATURE.

HISTORY.

ENGLISH.—Bede's Ecclesiastical History of England.
　　　　　Freeman's History of the Norman Conquest.
　　　　　Freeman's English Constitution.
　　　　　Froude's History of England.
　　　　　Ranke's History of England.
　　　　　Macaulay's History of England.
FOREIGN.—Bryce's Holy Roman Empire.
　　　　　Guizot's History of Civilization.
　　　　　Martin's History of France.
　　　　　Cox's History of the House of Austria.
　　　　　Karamsin's History of Russia.
　　　　　Bancroft's History of the United States.

ENGLISH LANGUAGE AND LITERATURE.

ANGLO-SAXON.

Thorpe's Analecta Anglo-Saxonica.
Poems of Beowulf, the Scop or Gleeman's tale, and the Fight at Finnesburg—Benjamin Thorpe.
Life of St. Guthlac—Charles Wycliffe Goodwin, M. A.
King Alfred's Anglo-Saxon Version of Orosius—Rev. Dr. Bosworth.

ENGLISH.

Specimens of Early English - Morris & Skeat, part first.
Specimens of English Literature—W. W. Skeat, M. A.
The Vision of William concerning Piers the Plowman, by William Langland—W. W. Skeat, M. A.
Chaucer, Part First :—The Prologue, The Knighte's Tale, The Nonne Preste's Tale, Edited by R. Morris, Editor for the E. E. T. S. Part Second : The Prioresses' Tale, etc., Edited by Rev. W. W. Skeat, M. A.
Spenser's Faery Queene, Books First and Second, by G. W. Kitchin, M.A.
Shakespeare's Select Plays, edited by W. G. Clark, M. A., and W. Aldis Wright, M. A.   I. The Merchant of Venice ; II. Richard the Second ; III. Macbeth ; IV. Hamlet ; V. The Tempest.
Bacon, Advancement of Learning—W. Aldis Wright, M. A.
Milton, Poems—R. C. Browne, M. A.
Dryden, Selections by W. D. Christie, M. A.
Pope, Essay on Man, Satires, and Epistles, by Mark Pattison, B. D.

DEPARTMENT OF SCIENCE,

IN CONNECTION WITH THE FACULTY OF ARTS.

Students entering upon the SCIENCE COURSE, with a view to the Degree of Bachelor of Science, (B. Sc.), are required to pass a Matriculation Examination in the following subjects :—

I.—IN MATHEMATICS : Arithmetic ; Euclid's Elements of Geometry, Book I. ; Algebra, Simple Rules ; and Simple Equations of one unknown quantity, not involving Surds.

II.—IN ENGLISH : Grammar ; History of England ; Geography ; Composition.

III.—LATIN, or GERMAN, or FRENCH : Grammar and Translation.

Two Professors' Scholarships, entitling to free attendance on all Classes of the Course, are offered for competition at the Matriculation Examination.

The Course of Instruction in Science extends over three Winter Sessions and two intervening Summer Sessions. Undergraduates are required to pass Examinations in the respective subjects at the close of each of the several Winter and Summer Sessions. The General Regulations for Students attending the Science Course, and proceeding to the Degree of Bachelor of Science, are similar to those in force in the Faculty of Arts, except when otherwise stated. The fees for Matriculation, Library, and Diploma, are the same.

Undergraduates in Science who do not attend the Summer Sessions will be required to take a fourth Winter Session. Attendance must be given and Examinations passed on all the required subjects of the Science Curriculum before the Degree can be taken, except in the case of a Student attending only during the Winter and who may be precluded from attendance on a class taught during the Summer Session only ; in such case special work, as nearly equivalent as possible to the omitted Class, will be prescribed.

An Undergraduate in Arts who has passed his Examination at the close of the first Winter Session, will be admitted as an Undergraduate in Science of the same standing.

COURSE OF INSTRUCTION IN SCIENCE.

FIRST YEAR.—WINTER SESSION.

MATHEMATICS.

As in ordinary course for Undergraduates in Arts of 1st year.

EXPERIMENTAL PHYSICS.

Details of the Course of Instruction will be announced at the opening of the Session.

Class Book : Balfour Stewart's Lessons in Elementary Physics.

INORGANIC CHEMISTRY.

General Principles : Chemical Affinity ; Combination ; Mixture ; Solution ; Suspension ; Laws of Combination, by weight, by volume ; Equivalent Numbers ; Atomic Numbers ; Atomic Theory ; Nomenclature ; Notation ; Formulæ ; Equations ; Elements and their classification ; description in detail of the Non-Metallic Elements, their modes of occurrence in nature, their preparation, their compounds, and of important Chemical Processes, natural and artificial, and manufactures, to which they are related ; the Metals, their general characters, classification, occurrence in nature ; metallurgical processes, Alloys ; description of all the important Metals, their Salts and other compounds, and of chemical processes and manufactures connected with them, modes of testing, etc.

Class meets three times a week.

Class Book : Fowne's Manual of Chemistry, or Roscoe.

LABORATORY PRACTICE.

Preparation and Examination of Gases, Liquids, and Solids, chiefly the Metalloids and their combinations with each other. Collection of Gases. Use of Pneumatic Trough. Bending and blowing of Glass, and fitting up of Glass Apparatus. Analysis and Synthesis of Water and Air. Illustration of meaning of terms : *Base, Acid, Salt, Neutralization, Combustion, Solubility, Affinity, &c.* Illustrations of processes of *Crystallisation, Distillation, Oxidation, &c.* Systematic Analysis (commenced).

Flame Reactions. Use of Spectroscope.

Text-Books : Laboratory Practice and Qualitative Analysis, by Thorpe and Muir. Macadam's Practical Chemistry.

The Class meets three times a week.

LATIN or GERMAN.

Latin.—As in Ordinary Course for Undergraduates in Arts of 1st year,—3 days a week.

German.—As in Ordinary Course for Undergraduates in Arts, (third year),—3 days a week.

ENGLISH GRAMMAR AND COMPOSITION.

The Class meets daily.

Undergraduates are required to take English Grammar and Composition during either their first or second Winter Session, as well as in the intervening Summer Session.

FIRST SUMMER SESSION.

ENGLISH GRAMMAR AND COMPOSITION.

GERMAN AND EITHER FRENCH OR SPANISH.

BIOLOGICAL SCIENCE (Botany, Zoology, Histology).

Elementary Course.

QUALITATIVE CHEMICAL ANALYSIS.

Systematic Qualitative Analysis. Detection of Bases and Acids, separate and in mixtures.
Macadam's Practical Chemistry. Will's Tables of Chemical Analysis.

CHEMICAL PHYSICS.

SECOND YEAR.- WINTER SESSION.

MATHEMATICS.

As in ordinary course for Undergraduates in Arts, 2nd year.

EXPERIMENTAL PHYSICS (Laboratory.)

Two days a week.

ENGLISH.

If not taken during the first Winter Session as well as during the first Summer Session.

GERMAN, AND EITHER FRENCH OR SPANISH.

QUANTITATIVE CHEMICAL ANALYSIS.

The Laboratory will be open daily (except Saturday) from 9 A. M. to 1 P. M., for work in this Department. There is a Reference Library in the Balance Room for the use of Students.
Undergraduates are required to attend three days a week, for at least two hours each day.

GEOLOGY, PALÆONTOLOGY, MINERALOGY.

Physiographic Geology : especially of Nova Scotia, New Brunswick and Prince Edward Island.
Lithological Geology : Rock Material of the Globe. Constituent Minerals of Rocks. Mineral Classification. Structure in Rocks. Arrangement of Strata.
Historical Geology : Rocks in order of formation and contemporaneous events in Geological History. Principal Rock Formations of British America and the United States. Characteristic Minerals.
Floras, Faunas. Rhizopods or Foraminifers ; their characters and distribution in time and space.
Dynamical Geology : Effects of Life on the Earth's Crust. Cohesive Attraction. Crystallization. The Atmosphere. Water. Heat.
Practical Geology : Methods of Investigation. Measurements. Use of Clinometer.
The Class meets three times a week.
Text Books recommended : Dana's Text Book or Manual of Geology. Chapman's Outlines of Geology of Canada.
Dana's (abridged) Manual of Mineralogy.

BIOLOGICAL SCIENCE (Botany, Zoology, Histology).

Botany.—Morphology of the Cell, of the Tissues, and of the External Conformation of Plants. Special Morphology of Thallophytes, Characeæ, Muscineæ, Molecular Forces in the Plant, Aggregation of Organized Struc-

tures, Movements of Water and Gases. Chemical Processes, Constituents of Plant Food, Assimilation, Respiration. Influence of Temperature, Light, Electricity, Gravitation. Mechanical Laws of Growth, Tension, Pressure, Fraction. Periodicity of Growth, Periodic Movements. Reproduction. Hybridization. Origin of Species. Origin of Varieties. The Theory of Descent. Classification, including a Description of the Principal Natural Orders of American Plants. Geographical Botany. Outline of Vegetable Palæontology.

Zoology.—Difference between Animals and Plants, in general structure, functions, and chemical constitution. Minute Structure of Animal Tissues. Characters by which the following groups of animals are distinguished from each other : Brachyopoda, Polyzoa, Tunicata. Mammalia, Aves, Reptilia, Amphibia, Pisces, Cephalopoda, Gasteropoda, Pteropoda, Lamellibranchiata. Insecta, Myriapoda, Arachnida, Crustacea, Annelida, Vermes, Rotifera. Echinodermata, Anthozoa, Hydrozoa, Infusoria. Embryology of the five groups of Vertebrata. Movements of the more common Food Fishes, in relation to Depth, Temperature, Food, Reproduction.

Histology.—Instruction will be given in the general use of the Microscope, the preparation and mounting of Vegetable and Animal Tissues, and the Microscopical Observation of vital phenomena in living plants and the lower forms of animals.

The Class meets three times a week.

On Saturdays during favourable weather there will be Field Excursions for collecting Botanical and Zoological Specimens, and Demonstrations will likewise be given in the Public Gardens and the Provincial Museum.

SECOND SUMMER SESSION.

ENGLISH GRAMMAR AND COMPOSITION.

GERMAN, AND EITHER FRENCH OR SPANISH.

QUANTITATIVE ANALYSIS & INORGANIC PREPARATIONS.

GEOLOGY.

Field Work and Demonstrations in Provincial Museum.

EXPERIMENTAL PHYSICS.

Work in Physical Laboratory.

THIRD YEAR.—WINTER SESSION.

MATHEMATICAL PHYSICS.

Text Books : Goodeve's Principles of Mechanics. Phear's Hydrostatics (or Galbraith & Haughton's). Galbraith & Haughton's Manuals of Astronomy and Optics.

EXPERIMENTAL PHYSICS.

Advanced Course.

ORGANIC CHEMISTRY.

Text Book : Armstrong's Chemistry.

ORGANIC CHEMICAL ANALYSIS AND ORGANIC PREPARATIONS, OR WORK IN PHYSICAL LABORATORY.

POLITICAL ECONOMY, OR
ONE MODERN LANGUAGE.

GEOLOGY AND MINERALOGY, OR
BIOLOGICAL SCIENCE.

Degrees, July, 1877.

BACHELOR OF ARTS.

F. W. ARCHIBALD..Truro.
RICHMOND LOGAN...............................Stewiacke.
WM. A. MASON...East River.
STANLEY TUPPER McCURDY.............................New Glasgow.

Degrees, April, 1878.

MASTER OF ARTS.

REV. WM. ARCHIBALD...............................Cavendish, P. E. I.
REV. JAMES C. HERDMAN............................Campbelton, N. B.
LOUIS A. JORDAN.....................................Halifax.
ALEXANDER McLEOD......................................Colchester
ARTHUR J. TRUEMAN...................................St. John, N. B.

BACHELOR OF ARTS.

JOHN A. CAIRNS.....................................Up. Freetown, P. E. I.
JOHN H. CAMERON......................................Antigonish.
JOHN LYALL GEORGE ....Pictou.
JAMES McKENZIE ....Pictou Co.
GEORGE W. MUNRO.....................................New York.
EDMUND L. NEWCOMBE.................................Cornwallis.
ANDERSON ROGERS.....................................Pictou Co.
ALFRED WHITMAN......................................Annapolis.

Students who obtained Certificates of Merit, Prizes, &c.

FOURTH YEAR.

JOHN L. GEORGE—Governor-General's Medal ; Prize in Classics.
JOHN H. CAMERON—Governor General's Silver Medal ; First Class Certifi-
    cate of Merit ; Prizes in Physics, History, Ethics.
G. W. MUNRO—Second Class Certificate of Merit ; Prize in French.
ANDERSON ROGERS—Second Class Certificate of Merit.

THIRD YEAR.

RODERICK McKAY—First Alumni Association Prize ; First Class Certificate
    of Merit ; First Prizes in Latin, Natural Philosophy, Metaphysics,
    Chemistry, French.
ISAAC M. McLEAN—Second Alumni Association Prize ; First Class Cer-
    tificate of Merit ; Second Prize in Metaphysics.
G. W. McQUEEN—First Class Certificate of Merit ; Prize in Classics.
CHAS. S. CAMERON—First Class Certificate of Merit.

SECOND YEAR.

ALBERT E. THOMSON—The North British Bursary; First Class Certificate of Merit; The St. Andrew's Prize; Prizes in Classics, Mathematics, Logic, Chemistry.

W. R. FRASER—Second Class Certificate of Merit.

S. J. McKNIGHT—First Prize in Chemistry.

FIRST YEAR.

JAMES S. TRUEMAN—First Alumni Association Prize; First Class Certificate of Merit; First Prizes in Classics, Rhetoric; Professors' Scholarship.

GRAHAM CREELMAN—Second Alumni Association Prize; First Class Certificate of Merit; Second Prizes in Classics, Mathematics; Professors' Scholarship.

W. H. SPENCER—Second Class Certificate of Merit.

GEORGE M. CAMPBELL—First Prize in Mathematics.

JAMES A. SEDGEWICK—First Prize for Elocution.

DUNCAN CAMERON—Second Prize for Elocution.

Medals, Prizes, Certificates of Merit, Scholarships.

THE GOVERNOR GENERAL'S MEDALS.

GOLD MEDAL...................John Lyall George, Pictou.
SILVER MEDAL...............John H. Cameron, Antigonish.

UNIVERSITY PRIZES.

FOURTH YEAR :—*Classics*, John L. George. *Physics*, Jas. H. Cameron. *Ethics*, J. H. Cameron. *History*, J. H. Cameron. *French*, G. W. Munro. THIRD YEAR :—*Classics*, G. W. McQueen. *Latin*, (special), Roderick McKay. *Natural Philosophy*, Roderick McKay. *Metaphysics*, 1. Roderick McKay; 2. Isaac M. McLean. *Chemistry*, Roderick McKay. *French*, Roderick McKay. SECOND YEAR :—*Classics*, Albert E. Thomson. *Mathematics*, Albert E. Thomson. *Logic*, Albert E. Thomson. *Chemistry*, 1. S. J. McKnight; 2. Albert E. Thomson. FIRST YEAR :—*Classics*, 1. James S. Trueman; 2. Graham Creelman. *Mathematics*, 1. George M. Campbell; 2. Graham Creelman. *Rhetoric*, James S. Trueman.

CERTIFICATES OF MERIT.

(The names are arranged alphabetically.)

FIRST CLASS : *Fourth Year*—J. H. Cameron. *Third Year*—C. S. Cameron, Roderick McKay, Isaac M. McLean, G. W. McQueen. *Second Year* —Albert E. Thomson. *First Year*—Graham Creelman, James S. Trueman.

SECOND CLASS : *Fourth Year*—G. W. Munro, Anderson Rogers. *Second Year*—W. R. Fraser. *First Year*—Wm. H. Spencer.

SPECIAL PRIZES.

THE SIR WILLIAM YOUNG PRIZES for Elocution : 1. James A. Sedgewick ; 2. Duncan Cameron.

THE ST. ANDREW'S PRIZE : Albert E. Thomson.

THE NORTH BRITISH BURSARY : Albert E. Thomson.

THE ALUMNI ASSOCIATION PRIZES : *Third Year*—1. Roderick McKay; 2. Isaac McLean. *First Year*—1. James S. Trueman ; 2. Graham Creelman.

PROFESSORS' SCHOLARSHIPS.

1. Graham Creelman, Pictou Academy.
2. James S. Trueman, St. John Grammar School.

Examinations, 1877-78.

The following Students have passed the Examinations hereinafter mentioned:

B. A. HONOUR EXAMINATIONS IN CLASSICS.

First or Second Rank Honours : None.
Passed for Degree : John L. George.

MATRICULATION EXAMINATION.

A. G. Cameron, Alf. Costley, Graham Creelman, H. S. Creighton, Johnson Davidson, Robt. G. Day, Hugh M. Fraser, Hugh R. Grant, Thomas Harrison, Alex. McAuley, Wallace McDonald, H. H. McIntosh, Daniel McKay, James A. Sedgewick, Wm. H. Spencer, James S. Trueman.

SUPPLEMENTARY EXAMINATIONS.

JULY 1877.

FOURTH YEAR : *Greek*—Wm. A. Mason, Richmond Logan.
Physics—F. W. Archibald, Stanley T. McCurdy.

OCTOBER, 1877.

THIRD YEAR : *Natural Philosophy*—John L. George.
SECOND YEAR : *Logic*—Robert R. Emmerson.

ENTRANCE EXAMINATIONS IN ANCIENT HISTORY AND GEOGRAPHY.

THIRD YEAR : Class I.—Isaac M. McLean, G. W. McQueen. Class II.—Robert R. Emmerson ; (Alfred Dickie, Roderick McKay,) equal. *Passed :* Chas. S. Cameron.
SECOND YEAR : Class I.—Albert E. Thomson, W. R. Fraser. Class II.—Fred. S. Kinsman. *Passed :* James F. McLean, John F. Dustan.

SUPPLEMENTARY EXAMINATIONS IN ANCIENT HISTORY AND GEOGRAPHY, APRIL 1878.

THIRD YEAR : Fred. B. Chambers.

SESSIONAL EXAMINATIONS, 1877.

GENERAL PASS LIST.

(The names are arranged alphabetically.)
FOURTH YEAR : John A. Cairns, John H. Cameron, John L. George, James McKenzie, George W. Munro, Edmund L. Newcombe, Anderson Rogers, Alfred Whitman.
THIRD YEAR : Chas. S. Cameron, Fred. B. Chambers, Alfred Dickie, Robert R. J. Emmerson, Roderick McKay, Isaac M. McLean, George W. McQueen.
SECOND YEAR : Wm. R. Fraser, Fred. S. Kinsman, Albert E. Thomson.
FIRST YEAR : Chas. W. Blanchard, Alex. G. Cameron, Alfred Costley, Graham Creelman, Henry S. Creighton, Johnson Davidson, Robert G. Day, Hugh R. Grant, Thomas Harrison, Wallace McDonald, Henry H. McIntosh, Daniel McKay, James A. Sedgewick, Wm. H. Spencer, James S. Trueman.

CLASS LISTS.

(The names are arranged in the order of merit.)

LATIN.

FOURTH YEAR—(Final Examination for Degree of B. A.), Class 1: J. L. George, G. W. Munro. Class 2: J. H. Cameron. *Passed:* Anderson Rogers, John A. Cairns, E. L. Newcombe, Alfred Whitman, James McKenzie.

THIRD YEAR—Class 1: Roderick McKay, G. W. McQueen. Class 2: Isaac M. McLean, Chas. H. Cameron. *Passed:* Robt. R. Emmerson, F. B. Chambers, Alfred Dickie.

SECOND YEAR—Class 1: Albert E. Thomson, Wm. R. Fraser. *Passed:* Fred. S. Kinsman.

FIRST YEAR—Class 1: James S. Trueman, Graham Creelman. Class 2: H. H. McIntosh, James A. Sedgewick, Chas. W. Blanchard, W. H. Spencer. *Passed:* H. S. Creighton, Hugh R. Grant, Johnson Davidson, Alfred Costley, A. G. Cameron, R. G. Day, Wallace McDonald, Thomas Harrison, Daniel McKay.

GREEK.

FOURTH YEAR—(Final Examination for Degree of B. A.), Class 1: J. L. George. Class 2: G. W. Munro. *Passed:* James McKenzie.

THIRD YEAR—Class 1: G. W. McQueen. Class 2: Isaac M. McLean.

SECOND YEAR—Class 1: Albert E. Thomson. Class 2. W. R. Fraser. *Passed:* Fred. S. Kinsman.

FIRST YEAR—Class 1: James S. Trueman, Graham Creelman. Class 2: H. H. McIntosh, James A. Sedgewick, Chas. W. Blanchard, H. S. Creighton, W. H. Spencer. *Passed:* Johnson Davidson, Hugh R. Grant, Alf. Costley, Wallace McDonald, R. G. Day, Dan. McKay, A. G. Cameron, Chas. D. McLaren, Thomas Harrison.

PHYSICS.

FOURTH YEAR—Class 1: J. H. Cameron. Class 2: (E. L. Newcombe, Anderson Rogers), equal. *Passed:* Alf. Whitman, John A. Cairns.

THIRD YEAR—Class 1: Rod. McKay, Isaac M. McLean. Class 2: Chas. S. Cameron, G. W. McQueen, (in Experimental Physics only). *Passed:* Alfred Dickie, Robert R. Emmerson, Fred. B. Chambers.

MATHEMATICS.

SECOND YEAR—Class 1: None. Class 2: Albert E. Thomson, Fred. S. Kinsman. *Passed:* S. J. McKnight, W. R. Fraser.

FIRST YEAR—Class 1: G. M. Campbell, Graham Creelman, C. W. Blanchard, A. G. Cameron, James S. Trueman. Class 2: W. H. Spencer, Robt. Landells, R. G. Day, Hugh R. Grant. *Passed:* Hugh M. Fraser. James A. Sedgewick, H. S. Creighton, Alf. Costley, H. H. McIntosh, Johnson Davidson, Alex. McAuley, Dan. McKay, Wallace McDonald, Paul F. Langill, Thomas Harrison, W. A. Henry.

ETHICS.

FOURTH YEAR—Class I: John H. Cameron. Class 2: Anderson Rogers, Malcolm Campbell; (John A. Cairns, James McKenzie), equal. *Passed:* George W. Munro, Alfred Whitman, Edmund L. Newcombe.

METAPHYSICS AND ÆSTHETICS.

THIRD YEAR—Class 1: Roderick McKay, Isaac M. McLean, Charles S. Cameron, George M. McLean, Alfred Dickie. Class 2: Robt. R. J. Emmerson, F. B. Chambers.

LOGIC AND PSYCHOLOGY.

SECOND YEAR—Class 1: A. E. Thomson, S. J. McKnight. Class 2: W. R. Fraser, Fred. Kinsman, Chas. L. McLaren, Alex. B. McLeod, Robert D. Ross.

CHEMISTRY.

THIRD YEAR—Class 1: Rodk. McKay, A. Dickie. *Passed:* R. R. J. Emmerson, F. B. Chambers.
SECOND YEAR—Class 1: S. J. McKnight, A. E. Thomson. Class 2: G. M. Campbell, Wm. R. Fraser. *Passed:* Fred. S. Kinsman.

HISTORY.

FOURTH YEAR—Class 1: John H. Cameron, Anderson Rogers. Class 2: Geo. W. Munro, John A. Cairns. *Passed:* E. C. Newcombe, James McKenzie, John L. George, Alfred Whitman.

ENGLISH LANGUAGE AND RHETORIC.

FIRST YEAR—Class 1: James S. Trueman. Class 2: Graham Creelman, H. S. Creighton, Robert Landells, H. H. McIntosh, Johnson Davidson, Wm. H. Spencer. *Passed:* Hugh R. Grant, Alf. Costley, R. G. Day, C. W. Blanchard, James A. Sedgewick, Dan. McKay, Thomas Harrison, Wallace McDonald, Alf. Costley, Alex. McAuley.

MODERN LANGUAGES.

FRENCH.

FOURTH YEAR—Class 1: George W. Munro. Class 2: J. H. Cameron, E. L. Newcombe, A. Rogers. *Passed:* J. A. Cairns, Alf. Whitman, J. A. McKenzie.
THIRD YEAR—Class 1: Rodk. McKay, Chas. S. Cameron. Class 2: Isaac M. McLean. *Passed:* R. R. J. Emmerson, F. B. Chambers, Alf. Dickie, G. W. McQueen.

GERMAN.

FOURTH YEAR—Class 1: J. L. George.

General List of Honours, Medals, Scholarships, Special Prizes, &c., 1867--78.

B. A. HONOURS.

1873—MATHEMATICS AND PHYSICS: Second Rank, Alex. H. McKay.
1874—CLASSICS: Second Rank, James Chalmers Herdman.
MENTAL AND MORAL PHILOSOPHY: Second Rank, James McDonald Oxley.
1876—MATHEMATICS AND PHYSICS: Second Rank, James McG. Stewart.
CLASSICS: Second Rank, Francis H. Bell.
1877—MATHEMATICS: Second Rank, John Waddell.

GOVERNOR GENERAL'S MEDALS.

1875—*Gold Medal:* Louis H. Jordan. *Silver Medal:* George McMillan.
1876—*Gold Medal:* Francis H. Bell. *Silver Medal:* James McG. Stewart.
1877—*Gold Medal:* John Waddell. *Silver Medal:* Burgess McKittrick.
1878—*Gold Medal:* J. L. George. *Silver Medal:* J. H. Cameron.

PROFESSORS' SCHOLARSHIPS.

1866—1. A. P. Silver, Halifax Grammar School; 2. A. W. H. Lindsay, Pictou Academy.
1867—1. James G. McGregor, private study; 2. James M. Inglis, Prince of Wales College, Charlottetown, P. E. I.
1868—1. Alex. W. Pollock; 2. W. P. Archibald, Halifax Schools.
1869—1. Charles D. McDonald, Pictou Academy; 2. Bruce A. Lawson; 3. Henry Macdonald, Halifax Schools.
1870—1. Andrew C. Herdman, Pictou Academy; 2. Alex. C. Patterson, Fort Massey Academy.

1871—1. William Brownrigg, Pictou Academy; 2. George McMillan, private
study.
1872—1. Francis H. Bell, private study; 2. Fred. W. O'Brien, Pictou
Academy.
1873—1. Jas. McLean, private study; 2. John Waddell, Pictou Academy.
1874—1. J. L. George, Pictou Academy; 2. John Stewart.
1875—1. Geo. W. McQueen, New Glasgow Academy; 2. Isaac M. McLean,
private study.
1876—1. Howard Murray, New Glasgow Academy; 2. W. R. Fraser.
1877—1. Graham Creelman, Pictou Academy; 2. James S. Trueman, St.
John Grammar School.

GRANT PRIZE.

For Essays—1866, Joseph H. Chase. 1867, Aubrey Lippincott. 1868,
Arthur P. Silver. 1869, Herbert A. Bayne. 1870, Hugh M. Scott.
1871, Duncan C. Fraser. 1872, Alex. H. McKay.

THE YOUNG PRIZES.

General Prize, voted by Students. 1867: 1. John Gow, 3rd and 4th years;
2. Alex. C. McKenzie, 1st and 2nd years. 1868: 1. George Murray,
3rd and 4th years; 2. Wentworth Roscoe, 1st and 2nd years. 1869:
1. John J. McKenzie, 3rd and 4th years; 2. Hiram Logan, 1st and
2nd years. 1870: *For Essay*, Walter M. Thorburn; *For Elocution*,
Duncan Fraser. 1871: *For Essay*, James G. McGregor; *For Elocu-
tion*, Robert G. Sinclair. 1872; *For Essay*, Ephraim Scott; *For
Elocution*, Fred. W. Archibald. 1874: Richmond A. Logan. 1875:
S. J. MacKnight. 1876: 1. Francis H. Bell; 2. Colin Pitblado.
1877: 1. H. H. Whittier; 2. G. E. Lowden. 1878: James A. Sedge-
wick; 2. Duncan Cameron.

ROY PRIZES.

For Elocution, 1868: 1. Alex. G. Russell; 2. James G. McGregor. 1869: 1.
Albert R. Quinn; 2. Wm. M. Doull.

NORTH BRITISH SOCIETY BURSARY.

1868: Hugh M. Scott. 1870: Ephraim Scott. 1872: James C. Herdman.
1874: James McG. Stewart. 1876: John H. Cameron. 1878: Albert
E. Thomson.

LAURIE PRIZE.

1871: Hugh M. Scott, B. A. 1872: Duncan C. Fraser. 1873: David F.
Creelman. 1874: Archibald Gunn. 1875: Alex. McLeod. 1876: No
competition. 1877: Richmond Logan.

ST. ANDREW'S PRIZE.

1873— *For Classics : First Year*, John W. McLeod.
1874— *For Mathematics : Second Year*, John W. McLeod.
1875— *For Classics : Second Year*, James McLean.
1876— *For Mathematics : Second Year*, T. A. Le Page.
1877— *For Classics : Second Year*, G. W. McQueen.
1878— *For Mathematics : Second Year*, Albert E. Thomson.

ALUMNI PRIZES.

1873 : James McG. Stewart. 1874 : 1. James McLean ; 2. John H. Sinclair.
1875 : 1. J. H. Cameron, private study ; 2. R. H. Humphrey, Halifax
Grammar School. 1876 : *Third Year*, John Waddell (who resigned
in order to hold the Waverley Prize), J. H. Sinclair. *First Year*, 1.
Roderic McKay, private study. 1877 : *Third Year*, 1. J. H. Cameron ;
2. Edmund L. Newcombe. *First Year*, 1. Howard Murray ; 2. W. R.
Fraser. 1878 : *Third Year*, 1. Roderick McKay ; 2. J. M. McLean.
First Year, 1. James S. Trueman ; 2. Graham Creelman.

"UNKNOWN" PRIZE.

1875 : James McLean.

GRADUATES' PRIZE.

1876 : John Wilson McLeod.   1877 : Burgess McKittrick.

WAVERLEY PRIZE.

1873 : Wm. Bearisto, Wm. R. Ross, equal.   1874 : James Fitzpatrick.   1875 : James McLean.   1876 : John Waddell.   Waverley Bursary, 1877 : Rod. McKay.

MELBOURNE PRIZES.

1875 : 1. John W. McLeod ; 2. James McG. Stewart.   1876 : George W. McQueen.

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

GRADUATES.

MASTERS OF ARTS.

1869.

Chase, Jos. Henry, Cornwallis.

1870.

McNaughton, Samuel.
McDonald, John H., Kentville.

1871.

Cameron, J. J., Georgetown, P. E. I.
Carr, Arthur F., St. Edward's, P. E. I.
Smith, David H., Truro.

1872

Annand, Joseph, Pictou.
Bayne, Herbert A., Ph. D., Pictou.
Forrest, James, Halifax.
McKenzie, John J., Ph. D., Pictou.

1874.

McGregor, Jas. G., Ph. D., Halifax.

1875.

McKenzie, Hugh, Earltown.
Scott, Ephraim, Douglas, Gore.

1876.

Allan, John M., Newfoundland.

1878.

Archibald, W. P., Cavendish, P. E. I.
Herdman, Jas. C., B. D., Edin., Campbelton, N. B.
Jordan, Louis H., Halifax.
McLeod, Alexander, Onslow.
Trueman, Arthur I., St. John, N. B.

DOCTORS OF MEDICINE AND MASTERS OF SURGERY.

1872.

DeWolfe, Geo. H. H., Dartm'th, N.S.
Hiltz, Chas. W., Bridgetown, Annap.
McMillan, Finlay, Pictou Co.
McRae, William, Richmond, C. B.
Sutherland, Roderic, River John, Pictou.

1874.

Campbell, Don. A., Truro.
Chisholm, Donald, Longpoint.
Moore, Edmund, Londonderry.

1875.

Cox, Robinson, Stewiacke.
Bethune, J. L.
Lindsay, A. W. H., Halifax.
Muir, W. S., Truro.
Casimir, Robert, Arichat.

BACHELORS OF ARTS.

1866.

Chase, J. Henry, Cornwallis.
Shaw, Robert, New Perth, P. E. I.

1867.

Burgess, Joshua C., Cornwallis.
Cameron, J. J., Georgetown, P. E. I.
Lippincott, Aubrey, New Glasgow.
McDonald, John H., Cornwallis.
McNaughton, Samuel, Pictou.
Ross, Alex'r, Roger's Hill, Pictou.
Sedgewick, Rob't, Mid. Musquodob't
Smith, David H., Truro.
Smith, Edwin, Truro.

1868.

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

1869.

Annand, Jos., Gay's River, Hants.
Bayne, Herbert A.
Millar, Eben. D., Roger's Hill, Pictou
McKenzie, J. J., Green Hill, Pictou.
Sutherland, John M., West River.

1870.

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

1871.

Bayne, Ernest S., Pictou.
McGregor, James G.
Russell, Alex. G., Truro.

1872.

Archibald, Wm. P., Halifax.
Bruce, Wm. T., Mid. Musquodoboit.
Carmichael, Jas., Lr. Musquodoboit.
Fraser, Duncan C., New Glasgow.
Gunn, Adam, East River, St. Mary's.
McKenzie, Hugh, Earltown.
Pollok, Alex. W., French River,
  Pictou.
Scott, Ephraim, Douglas, Gore.
Trueman, Arthur I., Point DeBute,
  N. B.

1873.

Allan, John M., Newfoundland.
Bryden, Chas. W., Tatamagouche.
Cameron, Wm., Sutherland's River.
Creelman, D. F., Stewiacke.
Duff, Kenneth, Lunenburg.

Hunter, John, New Glasgow.
Logan, Melville, Halifax.
McDonald, Chas. D., Pictou.
McKay, Alex. H., Dalhousie, Pictou.
McKeen, James A., Tatamagouche.
Robinson, J. Millen, Baillie, N. B.
Ross, Wm., East River, Pictou.

1874.

Doull, Walter S., Halifax.
Fraser, D. Stiles, Durham, Pictou.
Herdman, James C., Pictou.
Herdman. Wm. C., Pictou.
McGregor, Daniel, Inverness, C. B.
McLeod, Don'd, Strathalbyn, P. E. I.
Oxley, James McD., Halifax.

1875.

Fitzpatrick, Jas, Roger's Hill, Pictou
Jordan, Louis H., Halifax.
McLeod, Alex., Onslow, Colchester.
McMillan, Geo., South Hill, Pictou.
Stramberg, Hector H., Cape John,
  Pictou.

1876.

Bell Francis H., Halifax.
Fulton, Geo. H., Bass River, Colch'r.
McDowall, Isaac, Tatamagouche.
McLean, James Alexander, Pictou.
McLeod, Jno. W., N. River, Colch'r.
Morton, Jos. H., New Glasgow.
Munro, John, Valleyfield, P. E. I.
Stewart, J. McG., Whycocomagh.

1877.

Archibald, F. W., Truro.
Chambers, Robert E., Truro.
Grant, W. R., Springville, Pictou.
Hamilton, Howard H., Pictou.
Herdman, A. W., Pictou.
Laird, Geo. A., Cavendish, P. E. I.
Logan, Richmond, Stewiacke.
Mason, Wm. A., East River.
McCurdy, Stanley T., New Glasgow.
McKittrick, Burgess, Cornwallis.
Murray, J. S., Cavendish, P. E. I.
Pitblado, Colin, Truro.
Scott, John McD., Gore, Hants.
Waddell, John, Sheet Harbor.

1878.

Cairns, Jno. A., Up. Freetown, P.E.I.
  P. E. I.
Cameron, John H., South River,
  Antigonish.
George, John L., Pictou.
McKenzie, Jas., Green Hill, Pictou.
Munro, George W., New York.
Newcombe, Edmund L., Cornwallis.
Rogers, Anderson, Roger's Hill,
  Pictou.
Whitman, Alfred, Annapolis.

Graduates are requested to notify the Principal or Secretary of Senate
of any changes of address.

UNDERGRADUATES.

FOURTH YEAR.

Brownrigg, William, Pictou.
Cairns, J. H., Up. Freetown, P. E. I.
Cameron, J. H., South River, Antigonish.
George, J. L., Pictou.
McKenzie, J. A., Green Hill, Pictou.
Munro, G. W., New York.
Newcombe, E. L., Cornwallis.
Rogers, Anderson, Roger's Hill, Pictou.
Whitman, Alfred, Annapolis.

THIRD YEAR.

Cameron, Chas. S., Baddeck, C. B.
Chambers, F., Truro.
Dickie, Alfred, Stewiacke.
Emmerson, R. R. J., Halifax.
McKay, Rod., Dalhousie, Pictou.
McLean, Is. M., Belfast, P. E. I.
McQueen, George Wm., Sutherland's River, Pictou.

SECOND YEAR.

Fraser, W. R., Pictou.
Kinsman, Fred. S., Centreville, King's.

McLean, James F., Belfast, P. E. I.
McKnight, S. J., Dartmouth.
Ross, Robert D., East River, Pictou.
Thomson, Albert E., Halifax.

FIRST YEAR.

* Blanchard, C. W., Truro.
Cameron, Al. G., Newtown, Guysboro'.
Costley, Alfred, Halifax.
Creelman, Graham, Up'r Stewiacke.
Creighton, Henry S., Dartmouth.
Davidson, Johnson, Halifax.
Day, Robert G., Sheffield, N. B.
† Fraser, Hugh M., Dartmouth.
Grant, Hugh R. Stellarton.
Harrison, Thomas, Sheffield, N. B.,
McAulay, Alex., Toney River.
McDonald, Wallace, Halifax.
McIntosh, Hen. H., Merigomish.
McKay, Daniel, Carriboo River, Pictou.
Sedgewick, James A., Musquodoboit.
Spencer, Wm. R., Great Village.
Trueman, James S., Carleton, St. John, N. B.

* Matriculated in the University of Halifax.
† Matriculated, but did not attend all the classes.

GENERAL STUDENTS.

FOURTH YEAR OF ATTENDANCE.

NAME.	RESIDENCE.	CLASSES ATTENDED.
McMillan, Angus.........	St. Ann's, C. B	Latin, Ethics, History, Botany.
Thorpe, Edward..........	Cornwallis........	Ethics.

THIRD YEAR.

Campbell, Malcom	Glace Bay, C. B	Classics, Ethics, Metaph
Kennedy, W. T............	East River, Pictou......	Classics.
Lenoir, Melaim U.......	Halifax	

SECOND YEAR.

Archibald, Wm. E.... ...	Halifax	Class., Logic, Chemistry.
Crawford, Rupert H....	Halifax	Classics, Math., Rhetoric
Dustan, John F............	Dartmouth	Class., Math, Log., Chem
Fitzpatrick, John R....	Roger's Hill, Pictou ...	Metaphysics. Ethics.
Gilpin, Edwin, C. E.....	Halifax.	Analytical Chemistry.
Jack, Clifford	Halifax	Botany.
Johnson, David M......	Tatamagouche	Chemistry.
Keith, Sylvanus...	Stellarton...	Mathematics, Logic.
McIntosh, J. W...	East River, Pictou......	Classics, Math., Rhet.
McKay, Norman	Baddeck..	Chemistry, Botany.

NAME.	RESIDENCE.	CLASSES ATTENDED.
McKenzie, John	Boularderie...	Classics, Math , Rhet.
McLaren, C. D	Georgetown, P. E. I. ...	Classics, Logic, Chem.
McLeod, Alex. B.........	Strathalbyn	" " "
McMillan, Duncan	Ainslie	" " "
Munro, Wm. F	Valleyfield, P. E. I	Classics.
Puttner, Charles E	Halifax	Chemistry.
Stevens, Wm. H	Dartmouth	"

FIRST YEAR.

Aitkins, C. C...............	Lunenburg	Chemistry.
Andrews, Alfred	Wilmot......	"
Angus, Alexander C......	Cumberland...	"
Bell, Hen. H...............	Halifax	Botany.
Cameron, Allen............	Antigonishe	Chemistry.
Cameron, Duncan...... ...	East River, St. Mary's	Classics, Math., Rhet.
Clay, Henry...	Halifax......	Chemistry, Pract. Chem.
Campbell, George M......	Truro...	Math., Rhet., Chemistry
Cogswell, Alfred R......	Halifax	Chemistry.
DeMill, Wm. B.............	Halifax	Classics, Math., Rhet.
Fraser, William F.........	Sherbrooke	" " "
Gillies, Ewen...............	Scotland	Logic, Metaphysics.
Gisborne, Hartley	Sherbrooke...	Chemistry.
Henry, William Alex...	Halifax......................	Classics, Mathematics.
Landells, Robert	Halifax	Classics, Math., Rhet.
Langell, Paul F............	River John, Pictou......	" " "
Lord, Stanfield	Tryon, P. E. I.............	" " "
Magee, Havelock H......	Port Williams, Kings.	" " "
McDonald, John A......	Hopewell, Pictou	Logic, Metaphysics.
McKeen, Arthur H. H.	Cornwallis..................	Classics, Mathematics.
McKittrick, J. N.........	Halifax	Chemistry.
McLaren, Robert.........	Mabou.........	"
McLean, John W.........	Broad Cove, C. B... ...	"
McPhee, John P.........	East River, Pictou	Classics, Math., Rhet.
Moore, W. B...............	Kentville	Chemistry.
Munro, Hector R.........	Valleyfield, P. E. I......	Classics.
Outram, Joseph Jr	Halifax	Botany.
Reardon, Thomas.........	Halifax...	Chemistry, Pract. Chem.
Reid, James W............	Musquodoboit	"
Taylor, Rupert.............	Halifax...................	"
Thomson, A. Wellesley.	Omagh, Ireland	"
Walsh, Thomas W......	Halifax	"

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Undergraduates........................................................... 39
General Students. ................................................ 54
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    Total number of Students............................... 93
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DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

WEDNESDAY, APRIL 10. —9 A. M. TO 1 P. M.

FIRST YEAR.

LATIN.—CICERO: DE SENECTUTE.

PROFESSOR J. JOHNSON, M.A..................*Examiner.*

I.

1. Translate :

(*a*) Sed de ceteris et diximus multa et saepe dicemus : hunc librum de senectute ad te misimus. Omnem autem sermonem tribuimus non Tithono, ut Aristo Chius, parum enim esset auctoritas in fabula, sed M. Catoni seni, quo majorem auctoritatem haberet oratio. Apud quem Laelium et Scipionem facimus admirantes quod is tam facile senectutem ferat, iisque eum respondentem. Qui si eruditius videbitur disputare quam consuevit ipse in suis libris, attribuito litteris Graecis quarum constat eum perstudiosum fuisse in senectute. Sed quid opus est plura ?

(*b*) "Quod quo magis intelligi posset, fingere animo jubebat tanta incitatum aliquem voluptate corporis quanta percipi posset maxima : nemini censebat fore dubium quin tamdiu, dum ita gauderet, nihil agitare mente, nihil ratione, nihil cogitatione consequi posset. Quocirca nihil esse tam detestabile tamque pestiferum quam voluptatem : si quidem ea, quum major esset atque longinquior, omne animi lumen exstingueret." Haec cum C. Pontio Samnite, patre ejus a quo Caudino praelio Sp. Postumius, T. Veturius consules superati sunt, locutum Archytam Nearchus Tarentinus, hospes noster, qui in amicitia populi Romani permanserat, se a majoribus natu accepisse dicebat, quum quiden ei sermoni interfuisset Plato Atheniensis, quem Tarentum venisse L. Camillo, Appio Claudio consulibus reperio.

(*c*) Omnia vero quae secundum naturam fiunt, sunt habenda in bonis. Quid est autem tam secundum naturam quam senibus emori ? quod idem contingit adolescentibus, adversante et repugnante natura. Itaque adolescentes mori sic mihi videnter, ut quum aquae multitudine vis flammae opprimitur : senes autem sicut sua sponte nulla adhibita vi consumptus ignis exstinguitur ; et quasi poma ex arboribus, si cruda sunt, vi avelluntur ; si matura et cocta, decidunt : sic vitam adolescentibus vis aufert, senibus maturitas ; quae quidem mihi tam jucunda est, ut, quo propius ad mortem accedam, quasi terram videre videar aliquandoque in portum ex longa navigatione esse venturus.

2. Write biographical notes on (*a*) "M. Catoni," (*b*) "Scipionem," (*c*) "Plato."

3. "C. Pontio Samnite, patre ejus a quo....superati sunt :" give the date and details of this defeat. How does Livy's narrative differ from this account ?

4. (a) " Hunc librum d. s. ad te misimus : " mention the date when it was written and to whom it was sent.

(b) " Apud quem L. et Sc. facimus admirantes....iisque eum respondentem : " To what date is this imaginary meeting assigned ? How is this known ?

5. Give briefly the substance of Cato's answers to the usual charges against old age.

II.

1. Write out the principal and subordinate sentences of the last sentence of extract b, and show how they are connected.

2. (a) Decline in combination :—hospes noster, ei sermoni, litteris Graecis.

(b) Note peculiarities of declension of : seni, plura, nemini, aliquem, Samnite, vis, sponte.

3. Parse, giving chief parts : respondentem, attribuito,—fingere, censebat, gauderet, reperio,—adversante, decidunt, aufert, accedam.

4. Form (a) 3 pl. of the fut. indic. and pres. subj. act. of : eo, nolo, possum, fero, video.

(b) 2 sing. of the pres. indic. and imp. subj. pass. of : facio, conficio, fero, adeo.

5. What adjectives are followed by (a) the genitive, (b) the dative, (c) the genitive or ablative ? Give one example of each construction.

6. Write in Latin : In Rome, in Carthage, in the middle of the city ; to the city of Rome, to my house, to Carthage ; in spring, in the previous year, three times a year.

7. Distinguish the meanings of the dative and the accusative with : prospicere, consulere, cavere, convenire, moderor.

8. Translate into Latin :

Caesar was appointed Consul by the people of Rome.
What difference does it make to you ?
Caesar sends his soldiers across the river by means of these ships.
The General asked me first my opinion.
He says that the Judges do not care a jot for the state.

SESSIONAL EXAMINATIONS, 1878.

WEDNESDAY, APRIL 10.—AFTERNOON, 3 TO 5.30.

FIRST YEAR.

LATIN.—CICERO: FIRST PHILIPPIC.

PROFESSOR J. JOHNSON, M.A....................*Examiner.*

For Candidates seeking a place in the First or Second Class.

1. Translate:

(*a*) Quid tandem erat caussae cur in senatum hesterno die tam acerbe cogerer? Solusne aberam, an non saepe minus frequentes fuistis? an ea res agebatur ut etiam aegrotos deferri oporteret? Hannibal, credo, erat ad portas, aut de Pyrrhi pace agebatur, ad quam caussam etiam Appium illum et caecum et senem delatum esse memoriae proditum est. De supplicationibus referebatur, quo in genere senatores deesse non solent. Coguntur enim non pignoribus, sed eorum de quorum honore agitur gratia; quod idem fit quum de triumpho refertur. Ita sine cura consules sunt ut paene liberum sit senatori non adesse. Qui quum mihi mos notus esset, quumque e via languerem et mihimet displicerem, misi pro amicitia qui hoc ei diceret. At ille vobis audientibus cum fabris se domum meam venturum esse dixit. Nimis iracunde hoc quidem et valde intemperanter. Cujus enim maleficii ista poena est, ut dicere in hoc ordine auderet se publicis operis disturbaturum publice ex senatus sententia aedificatam domum? Quis autem umquam tanto damno senatorem coegit, aut quid est ultra pignus aut mulctam? Quod si scisset quam sententiam dicturus essem, remisisset aliquid profecto de severitate cogendi.

(*b*) Irasci quidem vos mihi, Dolabella, pro re publica dicenti non oportebit. Quamquam te quidem id facturum non arbitror—novi enim facilitatem tuam—collegam tuum aiunt in hac sua fortuna, quae bona ipsi videtur—mihi, ne gravius quippiam dicam, avorum et avunculi sui consulatum si imitaretur, fortunatior videretur;—sed eum iracundum audio esse factum. Video autem quam sit odiosum habere iratum eundem et armatum, quum tanta praesertim gladiorum sit impunitas; sed proponam jus, ut opinor, aequum, quod M. Antonium non arbitror repudiaturum. Ego si quid in vitam ejus aut in mores cum contumelia dixero, quo minus mihi inimicissimus sit non recusabo: sin consuetudinem meam, quam in re publica semper habui, tenuero, id est, si libere quae sentiam de re publica dixero, primum deprecor, ne irascatur; deinde, si hoc non impetro, peto ut sic irascatur ut civi. Armis utatur, si ita necesse est, ut dicit, sui defendendi caussa: iis qui pro re publica quae ipsis visa erunt dixerint ista arma ne noceant.

2. Write notes on: (*a*) Hannibal erat ad portas.
   (*b*) de pace Pyrrhi agebatur ad quam caussam etiam Appium....
   (*c*) de supplicationibus.
   (*d*) Kalendis Sextilibus,
   (*e*) Ex legione Alaudarum,

3. Under what rules do the moods of the following verbs come which are found in the passages for translation: Cogerer, oporteret, refertur, sit, esset—videretur, utatur.

4. Write in Latin: On the 10th of April, A. D., 1878: $\frac{1}{2}$, $\frac{3}{4}$, $\frac{4}{7}$.

5. What nouns of the 2 decl. are feminine? What parts of the body are expressed by the plural only?

6. Name the future participles act. that are not formed from the supine.

SESSIONAL EXAMINATIONS, 1878.

WEDNESDAY, APRIL 10.—AFTERNOON, 3 TO 6.30.

FIRST YEAR.

LATIN—CICERO: First Philippic.

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

For Candidates seeking a place in the First or Second Class.

1. Translate:

(a) Quid tandem erat causae cur in senatum hesterno die tam acerbe cogerer? Solusne aberam, an non saepe minus frequentes fuistis? an ea res agebatur ut etiam aegrotos deferri oporteret? Hannibal, credo, erat ad portas, aut de Pyrrhi pace agebatur, ad quam causam etiam Appium illum et caecum et senem ducebant. Nec mirum : de religionibus enim tum proditum est. De supplicationibus, quo in genere nullus deest senatus. Coguntur enim non pignoribus, sed eorum de quorum honore agitur gratia : quod idem fit cum de triumpho referitur. Ita sine cura consules sunt ut paene liberum sit senatori non adesse. Qui quum mihi mos notus esset, quumque e via languerem et mihimet displicerem, misi pro amicitia qui hoc ei diceret. At ille vobis audientibus cum fabris se domum meam venturum esse dixit. Nimis iracunde hoc quidem et valde intemperanter. Cuius enim malefici tanta ista poena est, ut dicere in hoc ordine auderet se publicis operis disturbaturum publice ex senatus sententia aedificatam domum ? Quis autem unquam tanto damno senatorem coegit ? aut quid est ultra pignus aut multam ? Quod si sciret quam sententiam dicturus essem, remisisset aliquid profecto de severitate cogendi.

(b) Iratos quidem vos huic, Dolabella, pro re publica dicenti non oportebat. Coniungam is quidem in sermone non adhibuo—novi animum, novi hominis audaciam—cui, cum aliis multa, tum vero de re publica maxime displiceant, eorum ex numero sed tamen...

2. Write notes on: (a) flandbal ornatus posses.

(b) de pace ? vertii agendum ad quam causam etiam

A. quam...

(c) de republica audita,

(d) latens texillum.

(e) Ex persona Antonium.

3. Under what rules do the moods of the following verbs come which are found in the passages for translation? Coerce, oportcat, referttur, sit.

4. Write in Latin - On the 10th of April, A. D. 1878.

5. What nouns of the 3rd are feminine? What parts of the body are expressed by the plural only?

6. Name the Latin participles, etc, that are not formed from the supine.

DALHOUSIE COLLEGE AND UNIVERSITY,

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

Friday, April 12th:—9 a.m. to 1 p.m.

FIRST YEAR.

GREEK:—XENOPHON: CYROPÆDIA, BOOK III.

Professor J. Johnson, M.A.,.....................*Examiner.*

Translate the following passages :—

(A) Ἀλλὰ μέντοι, ἔφη ὁ Τιγράνης, μεγάλα γ᾽ ἂν ζημιοῖο, εἰ τοὺς σεαυτοῦ κατακαίνοις τότε ὁπότε σοι πλείστου ἄξιοι εἶεν κεκτῆσθαι. Πῶς δ᾽ ἂν, ἔφη ὁ Κῦρος, τότε πλείστου ἄξιοι γίγνοιντο ἄνθρωποι ὁπότε ἀδικοῦντες ἁλίσκοιντο ; Εἰ τότε, οἶμαι, σώφρονες γίγνοιντο. δοκεῖ γὰρ μοι, ὦ Κῦρε, οὕτως ἔχειν, ἄνευ μὲν σωφροσύνης οὐδ᾽ ἄλλης ἀρετῆς οὐδὲν ὄφελος εἶναι · τί γὰρ ἂν, ἔφη, χρήσαιτ᾽ ἂν τις ἰσχυρῷ, ἢ ἀνδρείῳ μὴ σώφρονι, τί δ᾽ ἱππικῷ, τί δὲ πλουσίῳ, τί δὲ δυνάστῃ ἐν πόλει ; σὺν δὲ σωφροσύνῃ καὶ φίλος πᾶς χρήσιμος καὶ θεράπων πᾶς ἀγαθός. Τοῦτ᾽ οὖν, ἔφη, λέγεις ὡς καὶ ὁ σὸς πατὴρ ἐν τῇδε τῇ μιᾷ ἡμέρᾳ ἐξ ἄφρονος σώφρων γεγένηται ; Πάνυ μὲν οὖν, ἔφη. Πάθημα ἄρα τῆς ψυχῆς σὺ λέγεις εἶναι τὴν σωφροσύνην, ὥσπερ λύπην, οὐ μάθημα · οὐ γὰρ ἂν δήπου, εἴγε φρόνιμον δεῖ γενέσθαι τὸν μέλλοντα σώφρονα ἔσεσθαι, παραχρῆμα ἐξ ἄφρονος σώφρων ἄν τις γένοιτο.

(B) Ἐπεὶ δὲ εἶδε τὸν Κῦρον, ἔλεξεν, Ὦ Κῦρε, ὡς ὀλίγα δυνάμενοι προορᾶν ἄνθρωποι περὶ τοῦ μέλλοντος πολλὰ ἐπιχειροῦμεν πράττειν. νῦν γὰρ δὴ καὶ ἐγὼ ἐλευθερίαν μὲν μηχανᾶσθαι ἐπιχειρήσας δοῦλος ὡς οὐδεπώποτε ἐγενόμην · ἐπεὶ δ᾽ ἑάλωμεν, σαφῶς ἀπολωλέναι νομίσαντες νῦν ἀναφαινόμεθα σεσωσμένοι ὡς οὐδεπώποτε. οἱ γὰρ οὐδεπώποτε ἐπαύοντο πολλὰ κακὰ ἡμᾶς ποιοῦντες, νῦν ὁρῶ τούτους ἔχοντας ὥσπερ ἐγὼ ηὐχόμην. καὶ τοῦτο ἐπίστω, ἔφη, ὦ Κῦρε, ὅτι ἐγὼ ὥστε ἀπελάσαι Χαλδαίους ἀπὸ τούτων τῶν ἄκρων πολλαπλάσια ἂν ἔδωκα χρήματα ὧν σὺ νῦν ἔχεις παρ᾽ ἐμοῦ · καὶ ἃ ὑπισχνοῦ ποιήσειν ἀγαθὰ ἡμᾶς ὅτ᾽ ἐλάμβανες τὰ χρήματα, ἀποτετέλεσται σοι ἤδη, ὥστέ καὶ προσοφείλοντές σοι ἄλλας χάριτας ἀναπεφήναμεν, ἃς ἡμεῖς γε, εἰ μὴ κακοί ἐσμεν, αἰσχυνοίμεθ᾽ ἂν σοι μὴ ἀποδιδόντες · ὁ μὲν Ἀρμένιος τοσαῦτ᾽ ἔλεξεν.

II.

1. Contract these vowels, noting exceptions to the contracted forms :

   οει, οα, οη, οης, οειν, αο, αει, αο, εα, ηου.

2. Decline in combination :—

   ὁ σὸς πατήρ : πᾶς θεράπων : ἄλλας χάριτας.

3. Write (*a*) the acc. and voc. sing. and dat. pl. of :—

πούς, γυνή, ἀνήρ, θεός, τέκτων;

(*b*) the dat. sing. and gen. pl. (in all genders) of :—

σαυτόν, ὅστις, οὗτος, οὗ, αὐτός.

4. What forms in the other degrees of comparison correspond in gender, number and case, or otherwise to

πλείστου, ἰσχυρῷ, ἄφρονος, μεγάλα, σαφῶς, κακοί, ῥᾴων, πενητα, φίλω, τάχιστα.

5. Form (*a*) the 3 pl. imp. indic. act. of ἔχω, οἰκέω, συλλέγω ;

(*b*) the 3 pl. 2 aor. ind. mid. of στέλλω, ἀνατρέπω, περιτίθημι ;

(*c*) the perf. inf. pass. of ῥίπτω, τείνω, ἀποβάλλω, δίδωμι.

6. Parse the following verbal forms, which occur in the extracts, and write their chief parts *in use*, (pres. fut., first or second aor. perf. pass., and first aor. pass.) :—

δοκεῖ, οἶμαι, εἶδε, ἑάλωμεν, ἀπολωλέναι, σεσωσμένοι, ἐπίστω, ἀπελάσαι, ἀποτετέλεσται, ἔλεξεν.

7. Account for these cases in extract. A. :—πλείστου : τί (γὰρ ἂν ἔφη) πάθημα; (ext. B.) δοῦλος : ὢν (σὺ νῦν ἔχεις) : ἃ (ὑπισχνοῦ ποιήσειν) ἀγαθὰ ἡμᾶς.

III.

(*For candidates seeking a place in the First or Second Class.*)
3 P.M. TO 5.30 P.M.

1. Translate :—

Ἡνίκα δὲ προσιόντες ἐλέγοντο οὐκέτι δέχ' ἡμερῶν ὁδὸν ἀπέχειν, τότε δὴ ὁ Κῦρος λέγει, Ὦ Κυαξάρη, ὥρα δὴ ἀπαντᾶν καὶ μήτε τοῖς πολεμίοις δοκεῖν μήτε τοῖς ἡμετέροις φοβουμένους μὴ ἀντιπροσιέναι, ἀλλὰ δῆλοι ὦμεν ὅτι οὐκ ἄκοντες μαχούμεθα. ἐπεὶ δὲ ταῦτα συνέδοξε τῷ Κυαξάρῃ, οὕτω δὴ συντεταγμένοι προῇσαν τοσοῦτον καθ' ἡμέραν ὅσον ἐδόκει αὐτοῖς καλῶς ἔχειν. καὶ δεῖπνον μὲν ἀεὶ πατὰ φῶς ἐποιοῦντο, πυρὰ δὲ νύκτωρ οὐκ ἔκαον ἐν τῷ στρατοπέδῳ· ἔμπροσθεν μέντοι τοῦ στρατοπέδου ἔκαον, ὅπως ὁρῷεν μὲν εἴ τινες νυκτὸς προσίοιεν διὰ τὸ πῦρ, μή ὁρῷντο δ' ὑπὸ τῶν προσιόντων. πολλάκις δὲ καὶ ὄπισθεν τοῦ στρατοπέδου ἐπυρπόλουν ἀπάτης ἕνεκα τῶν πολεμίων. ὥστ' ἔστιν ὅτε καὶ κατάσκοποι ἐνέπιπτον εἰς τὰς προφυλακὰς αὐτῶν, διὰ τὸ ὄπισθεν τὰ πυρὰ εἶναι ἔτι πρόσω τοῦ στρατοπέδου οἰόμενοι εἶναι.

2. What must have been earlier forms of the last syllables of the following words? State the reasons in each case :—

μέλι, γένους, ἐλάττων, εἰς, βασιλεῖ : ἔτυπτε, τρέπω, πεπεῖσθαι, δός, ὤν.

3. Decline with accents :—

   παῖς, παιάν, ἡδύς, ἡ θυγάτηρ.

4. What masculine nouns have also a neuter form of the plural?

5. (a) What compound verbs augment both preposition and verb?
   (b) What verbs in —εω have a short penult in the future?

6. Accentuate and parse, (giving chief parts) :—

   δηλουν, ἐστεφανωμένος, πειρωνται, ἐφυτε, ἐπιχειροιη, ὑπαρξάι, ἐθιουσι.

7. Write in Latin :—

   (a) δεκ' ἡμερῶν ὁδὸι ἀπέχειν.
   (b) δῆλοι ὦμεν ὅτι οὐκ ἄκοντες μαχούμεθα.
   (c) καθ' ἡμέραν : νύκτωρ.

$$x^4 + y^4 = 97$$
$$xy = 6$$

$$\frac{4\,5}{\frac{4\,5}{3}}$$

$$165$$

$$x^2 y^2 = 36 \qquad \frac{13}{\frac{13}{06}}$$
$$2x^2 y^2 = 72 \qquad \frac{13}{9}$$

$$49$$

$$x^4 + 2x^2 y^2 + y^4 = 169$$

$$x^2 + y^2 = 13$$

$$x^2 + 2xy + y^2 = 25$$

$$x + y = 5$$

$$x^2 - 2xy + y^2 = 1$$

$$x - y = 1$$
$$x + y = 5$$

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

MONDAY, APRIL 15.—3 P. M.

FIRST YEAR.

MATHEMATICS.—ARITHMETIC AND ALGEBRA.

C. MACDONALD, M.A............ ....*Examiner.*

1.   A cistern that could be filled by a tap A in ten hours, and emptied by a tap B in 6 hours, is just half full. Both taps are opened; find in what time it will be filled or emptied.

2.   Given a vulgar fraction in its lowest terms. You can find at once whether the equivalent decimal fraction is terminate or interminate. Give examples.

3.   Write the quotients of $\dfrac{a^5 + y^5}{a + y}$, $\dfrac{64 - x^6}{2 - x}$, $\dfrac{a^2 - b^2}{a^{\frac{1}{2}} - b^{\frac{1}{2}}}$.

4.   If $a : b :: c : d$, prove $a + b : a - b :: c + d : c - d$; also, that $ma = nb$, greater or less, according as $mc = nd$, greater or less.

5.   Divide $\dfrac{x^3 + y^3}{x^2 - y^2}$ by $\dfrac{x^2 - xy + y^2}{x - y}$: and expand $(2a - x)^4$.

6.   Reduce to lowest terms $\dfrac{15x^3 + 35x^2 + 3x + 7}{27x^4 + 63x^3 - 12x^2 - 28x}$, and extract the square root of $41 - 12\sqrt{5}$.

7.   Solve the equations $\left.\begin{array}{l} y(3 + x) = x(7 + y) \\ 4x + 9 = 5y - 14 \end{array}\right\}$ and $\dfrac{x^2}{3} = 9 + \dfrac{x}{2}$.

8.   Solve the equation $x^2 - 2x + 6\sqrt{x^2\ 2x + 5} = 11$; Given also that $x^4 + y^4 = 97$, and $xy = 6$; to find x and y.

9.   A furrier bought a number of skins for \$285; but 8 of them having been stolen, he found that, not to lose money by the transaction, he must sell the remainder at \$2 each of advance on cost price. How many did he buy?

10.   Adopting the usual notation, sum an Arithmetical Progression of n terms. Shew also that the sums of terms equidistant from the extremes are the same.

11.   Find the Harmonic mean between a and b; and shew that the Harmonic division of a line, as defined in Geometry, corresponds to the Algebraic definition of the H. P. a, b, c.

12.   If the 1st term of an infinite Geometrical series ($r < 1$) is to the sum of all that follow it as $m : n$; shew that $r = \dfrac{n}{m + n}$.

13.   Given $7x - 5y = 41$: find the general solutions, which are positive and integral.

14. $x^2 + px + q = 0$. Form the equation whose roots are the square of the sum and the square of the difference of the roots of this equation.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1876.

MONDAY, APRIL 18 — 3 P.M.

FIRST TERM.

MATHEMATICS—ARITHMETIC AND ALGEBRA.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

TUESDAY, APRIL 16. —9 A. M. TO 1 P. M.

FIRST YEAR.

RHETORIC.

PROFESSOR DeMILL, M.A....................*Examiner.*

1. Give the percentage of words of Anglo-Saxon origin in different departments of literature. Show generally the nature of words of Anglo-Saxon origin, as compared with that of words derived from the Latin.

2. Explain what is meant by precision in attributive terms. Define and illustrate the following :—impropriety, vagueness, tautology, circumlocution, verbosity.

3. What is the general rule for the arrangement of words in a sentence ? Show how unity may be best observed.

4. Explain the following terms and show their relation respectively to perspicuity,—conciseness, diffuseness, repetition, digression. Mention certain cases in which perspicuity is not aimed at.

5. Enumerate the figures of interrogation, and give an example of each. Define and illustrate the elliptical figures.

6. Explain the following terms applied to style—epigrammatic, illustrative suggestive, classical. What is the difference between euphony and elegance ?

7. Show the chief modes by which connectives are varied in English sentences. What is the difference between the formal, and the elegant transition ?

8. Enumerate the leading departments of literature, and give a definition of each. Explain the various aims of the writer.

9. Give a brief statement of Mill's four experimental methods of enquiry. Explain the following kinds of argument :—causative, illustrative, exemplative.

10. Explain what is meant by the term aesthetics. What are the chief sources of the sublime.

SESSIONAL EXAMINATIONS, 1878.

TUESDAY, APRIL 16.—3 P. M. TO 6 P. M.

FIRST YEAR.

ANGLO-SAXON.

PROFESSOR DeMILL, M.A.........................*Examiner.*

1.   Translate :—

Tha aras he fram tham slaepe, and eal tha the he slaepende sang, faeste in gemynde haefde, and tham wordum sona manig word in thaet ilce gemet Gode wyrdhes songes togetheodde.   Tha com he on morne to tham tungerefan, se the his ealdorman waes, and him saede hwilce gife he onfeng, and he hine sona to thaere abbudissan gelaedde, and hire thaet cydhde and saegde.   Tha het heo gesamnian ealle tha gelaerdestan men, and tha leorneras, and him andweardum het secgan thaet swefn, and thaet leodh singan, thaette ealra heora dome gecoren waere, hwaet odhdhe hwonan thaet cumen waere.   Tha waes him eallum gesewen swa swa hit waes, thaet him waere fram Dryhtne selfum heofonlic gifu forgifen.   Tha rehton hi him and saegdon sum halig spel and godcundre lare word, bebudon him tha, gif he mihte, thaet he him sum sunge and in swinsunge leodhsanges thaet gehwyrfde.   Tha he tha haefde tha wisan onfangene, tha eode he ham to his huse, and com eft on morgen, and thy betstan leodhe geglenged him asang and ageaf thaet him beboden waes.

2.   Parse aras, com, onfeng, saegde, andweardum.

3.   Give the modern English forms of the following words, and explain the nature of the euphonic changes that have taken place,—slaepe, manig, gelaerdestan, hlaford, axian, weoruld, climan.

4.   Translate :—

Satan madhelode ; sorgiende spraec
se the helle fordh healdan sceolde
gyman thaes grundes : waes aer Godes engel
hwit on heofne, odh hine his hyge forspeon
and his ofermetto ealra swidhost,
thaet he ne wolde wereda Drihtnes
word wurdhian.   Weol him on innan
hyge ymb his heortan ; hat waes him utan
wradhlic wite.   He tha worde cwaedh :
" Is thes aenga stede ungelic swidhe
tham odhrum the we aer cudhon
hean on heofon rice, the me min hearra onlag,
theah we hine for tham alwealdan agan ne moston,
romigan ures rices.   Naefdh he theah riht gedon
thaet he us haefdh befylled fyre to botme
nelle thaere hatan, heofon-rice benumen,
hafadh hit gemearcod mid mon-cynne
to gesettanne.   Thaet me is sorga maest
thaet Adam sceal, the waes of eordhan geworht
minne stronglican stol behealdan.

5.   Explain the versification of the above passage.

6.   Parse spraec, gyman, wereda, weol, cudhon, romigan.

7.   Decline in combination se goda hirde.

8.   Write out the forms of he, heo, hit.

9.   Write out the forms of the Indicative Mood Active of the verb niman.

10.   Enumerate and explain the chief points of difference between Anglo-Saxon and Modern English.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

THURSDAY, APRIL 18.—9 A. M. TO 1 P. M.

FIRST YEAR.

ENGLISH LANGUAGE.

PROFESSOR DeMILL, M.A......................*Examiner*.

1. Translate :

    King Harald sat glad ynou at Euerwik atte mete,
    So that ther com a messager ar he adde iyete,
    and sede, that Duc Willam to Hastinges was icome,
    and is baner adde arerd and the contreie al inome.
    Harald anon, mid grete herte corageus ynou,
    As he of nomon ne tolde thuderward uaste he drou.
    He ne let noyt clupie al is folc so willesfol he was,
    and al for in the other bataile him vel so vair cas.
    . Tho duc Willam wuste that he was icome so nei,
    A monek he sende him in message and dude as the sley,
    That lond, that him was iyiue, that he ssolde him vp-yelde
    other come, and dereyni the riyte mid suerd in the velde.
    Yif he sede, that he nadde none riyte ther-to,
    That vpe the popes lokinge of Rome he ssolde it do.
    and he wolde ther-to stonde al withoute fiyte,
    Wer Seint Edward hit him yaf and where he adde ther-to riyte.
    Harald sende him word ayen that he nolde him take no lond,
    Ne no lokinge of Rome but suerd and riyt hond.
    Tho hit other ne miyte be either in is side.
    Conseilede and yarkede hom bataile uor to abide.

2. Translate :

    Thai folud o this stern the leme,
    Til thai come into Ierusalem ;
    Bot fra thai come thar als suith,
    The stern it hid and can vnkyth,
    Thoru the might of Sant Drightin,
    For Herod's sak his witherwin.
    That wist thof-quether the kinges noght,
    Bot wend haf funden that thai soght.
    Thai toke thair gesting in the tun,
    And spird him efter vp and dun ;
    Bot the burgeses o the cite.
    Thoght ferli quat this thing suld be ;
    Thai asked quat thai soght, and thai
    Said " a blissful child, par fai,
    He sal be king of kinges alle,
    To hand and fete we sal him falle ;
    Sagh we an stern that ledd us hidir."
    Than thai gedir tham togedir,
    And spak hir-of wit gret wondring ;
    And word cum til Herod the kyng,
    That thar was suilk kynges cummun,
    And in that tun gestening had nummun.

3. Show by the grammatical and orthographical forms of the above two passages, to which of the Early English dialects they respectively belong.

4. Translate:

> Ich was a-ferd of hire Face thauh heo feir weore
> And said, " Merci, Ma dame What is this to mene ?"
> " This Tour & this Toft," quod heo, " treuthe is ther-Inne,
> And wolde that ye wrouyten as his word techeth ;
> For he is Fader of Fei that formed ow alle
> Bothe with Fel and with Face, and yaf ow fyue wittes,
> Forte worschupen him therwith while ye beoth heere.
> And for he hihte the eorthe to seruen ow vchone
> Of wollene, Of linnene To lyflode at neode,
> In Mesurable Maner to maken ow at ese ;
> And Comaundet of his Cortesye In Comune threo thinges ;
> Heore nomes beth neodful and nempnen hem I thenke,
> Bi Rule and bi Resun Rehersen hem her-aftur.
> That on Clothing is from Chele ow to saue ;
> And that other, Mete at Meel for meseise of thiseluen ;
> And drink whon thou druiyest but do hit not out of Resun,
> That thou weorthe the worse whon thou worche scholdest."

5. Give forms in another dialect corresponding to the following :—Ich, heo, wolde, techeth, worschupen, seruen, maken, heore,

6. Explain the versification.

7. Translate:

> Now wolde som men waiten, as I gesse,
> That I shulde tellen al the purveiance
> That themperour, of his gret noblesse,
> Hath shapen for his doughter dame Custance.
> Wel may men knowe that so gret ordinance
> May no man tellen in a litel clause
> As was arrayed for so heigh a cause.

> Bisshopes ben shapen with hire for to wende,
> Lordes, ladies, knyghtes of renoun,
> And other folk ynow, this is the ende ;
> And notified is thurgh-out the town
> That euery wight, with gret deuocioun,
> Shulde preyen crist that he this mariage
> Receyue in gree, and spede this viage.

> The day is comen of hir departyng,
> I sey, the woful day fatal is come,
> That ther may be no lenger tariyng,
> But forthward they hem dressen, alle and some ;
> Custance, that was with sorwe al ouercome,
> Ful pale arist, and dresseth hir to wende ;
> For wel she seeth ther is non other ende.

8. Give examples of Southern dialectic forms, and also of words of foreign derivation, in the first stanza of the above passage.

9. Parse the following—ben, wende, receyue, spede, comen, tariyng, hem, arist.

10. Explain the various forms of words ending in "e" as used by Chaucer.

11. Write all the forms of Ic.

12. Write the Southern dialectic forms of the Active Voice of the verb lovie.

13. Enumerate the great groups of languages and state to which one the English belongs.

14. Give dates of the following periods in the growth of the English language, and name the chief representatives of each period; Anglo-Saxon, Semi-Saxon, Old English, Middle English.

15. Define and illustrate the following :—Syncope, Aphaeresis, Apocope, Elision, Prothesis, Epenthesis, Paragoge, Metathesis, Synaeresis, Diaeresis.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

SECOND YEAR.

LATIN.—LIVY: Book XXI.

Professor J. Johnson, M.A.....................*Examiner.*

I.

1. Translate :

(*a*) Tum, quamquam fama prius, qua incerta in majus vero ferri solent, praecepta res erat, tamen ex propinquo visa montium altitudo, nivesque coelo prope immixtae, tecta informia imposita rupibus, pecora jumentaque torrida frigore, homines intonsi et inculti, animalia inanimaque omnia rigentia gelu, cetera visu quam dictu foediora terrorem renovarunt. Erigentibus in primos agmen clivos, apparuerunt imminentes tumulos insidentes montani ; qui, si valles occultiores insedissent, coorti in pugnam repente, ingentem fugam stragemque dedissent. Hannibal consistere signa jubet, Gallisque ad visenda loca praemissis, postquam comperit transitum ea non esse, castra inter confragosa omnia praeruptaque, quam extensissima potest valle, locat. Tum per eosdem Gallos haud sane multum lingua moribusque abhorrentes, quum se immiscuissent colloquiis montanorum, edoctus interdiu tantum obsideri saltum, nocte in sua quemque dilabi tecta, luce prima subiit tumulos, ut ex aperto atque interdiu vim per angustias facturus. Die deinde simulando aliud quam quod parabatur consumpto, quum eodem quo constiterant loco castra communissent, ubi primum degressos tumulis montanos laxatasque sensit custodias, pluribus ignibus quam pro numero manentium in speciem factis, impedimentisque cum equite relictis et maxima parte peditum, ipse cum expeditis, acerrimo quoque viro, raptim angustias evadit, iisque ipsis tumulis quos hostes tenuerant consedit.

(*b*) Prius Placentiam pervenere quam satis sciret Hannibal ab Ticino profectos : tamen ad sexcentos moratorum in citeriore ripa Padi, segniter ratem solventes, cepit. Transire pontem non potuit, ut extrema resoluta erant, tota rate in secundam aquam labente. Coelius auctor est Magonem cum equitatu et Hispanis peditibus flumen extemplo transnasse, ipsum Hannibalem per superiora Padi vada exercitum traduxisse, elephantis in ordinem ad sustinendum impetum fluminis oppositis. Ea peritis amnis ejus vix fidem fecerint : nam neque equites armis equisque salvis tantam vim fluminis superasse verisimile est, ut jam Hispanos omnes inflati transvexerint utres ; et multorum dierum circuitu Padi vada petenda fuerint, qua exercitus gravis impedimentis traduci posset. Potiores apud me auctores sunt, qui biduo vix locum rate jungendo flumini inventum tradunt ; ea cum Magone equites Hispanorum expeditos praemissos.

2. Write a short account of Livy and his history, mentioning the materials for the work at his disposal.

II.

1. Nives, coelo, nocte, loco, angustias, ignibus, utres, ordinem: note peculiarities of gender or declension.

2. Account for the cases of: qua (incerta), loco, tumulis, Placentiam, amnis, flumini.

3. Distinguish the meanings of: hic, iste, ille; ire Capuam, ire ad Capuam; dixit sibi id placere, dixit sibi id placiusse; vereor ut veniat, ne veniat; scio quae tu scis, scio quae tu scias; velim ire, vellem ire.

4. What is the Latin of: the house is building, is built, was built in the winter, has been built ten years, was already built, had been built a long time before I came there.

5. How are the moods in *oratio recta* changed in *o. obliqua*?

6. Turn this passage into the opposite form of a report: Fingerent (Alpes) altiores Pyrenaei jugis; nullas profecto terras coelum contingere; ....Eos ipsos, quos cernant, legatos non pinnis sublime elatos Alpes transgressos; ....Militi quidem armato quid invium esse? ....Cepisse quondam Gallos ea quae adiri posse Poenus desperet.

7. How may a *purpose* be expressed? Illustrate the different ways by translating, "he sent ambassadors to beg for peace."

8. Translate into Latin:

The whole army could have been destroyed if the conquerors had followed the fugitives. Setting out on the following day he marched into the interior of Gaul, not because it was a more direct route to the Alps, but because he was unwilling to engage with the enemy. While these things were being transacted in Spain, C. Trebonius, who had been left at Marseilles, began to advance his battering-towers towards the town.

III.

For Candidates seeking a place in the First or Second Class.

AFTERNOON, 3 TO 5.30.

HORACE: ARS POETICA.

1. Translate (a) vss. 154—165: (b) vss. 419—433.

2. Explain (a) Hunc socci cepere pedem grandesque cothurni.
  (b) Nec sic incipies ut scriptor cyclicus olim.
  (c) Nec gemino bellum Trojanum orditur ab ovo.
  (d) nec quarta loqui persona laboret.

3. Ego cur acquirere pauca
  Si possum invideor, cum lingua Catonis et Enni
  Sermonem patrium ditaverit?

Illustrate by examples: acquirere pauca si possum.

4. Write in Latin:

His eagerness to rule; water fit to drink; he deserves to be loved; wonderful to relate; he is too honest to deceive any one; take care not to believe him; he promised to come; he caused the river to be bridged.

5. Show by examples the use of *dum* and *quin*.

DALHOUSIE COLLEGE AND UNIVERSITY,

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

Friday, April 12th:—9 a.m. to 1 p.m.

SECOND YEAR.

GREEK :— { XENOPHON: MEMORABILIA, BOOK I.
{ HOMER: ODYSSEY, BOOK V.

Professor J. Johnson,...........................*Examiner.*

1. Translate :—

(A) Οὐδεὶς δὲ πώποτε Σωκράτους οὐδὲν ἀσεβὲς οὐδὲ ἀνόσιον οὔτε πράττον-
τος εἶδεν οὔτε λέγοντος ἤκουσεν. οὐδὲ γὰρ περὶ τῆς τῶν πάντων φύσεως ἥπερ
τῶν ἄλλων οἱ πλεῖστοι διελέγετο σκοπῶν ὅπως ὁ καλούμενος ὑπὸ τῶν σοφιστῶν
κόσμος ἔφυ καὶ τίσιν ἀνάγκαις ἕκαστα γίγνεται τῶν οὐρανίων, ἀλλὰ καὶ τοὺς
φροντίζοντας τὰ τοιαῦτα μωραίνοντας ἀπεδείκνυ. καὶ πρῶτον μὲν αὐτῶν ἐσκό-
πει πότερά ποτε νομίσαντες ἱκανῶς ἤδη τἀνθρώπεια εἰδέναι ἔρχονται ἐπὶ τὸ
περὶ τῶν τοιούτων φροντίζειν, ἢ τὰ μὲν ἀνθρώπεια παρέντες, τὰ δαιμόνια δὲ
σκοποῦντες ἡγοῦνται τὰ προσήκοντα πράττειν.

(B) Οἷα μὲν οὖν ἡ συνουσία ἐγεγόνει Κριτίᾳ πρὸς Σωκράτη καὶ ὡς εἶχον πρὸς
ἀλλήλους εἴρηται. φαίην δ' ἂν ἔγωγε μηδενὶ μηδεμίαν εἶναι παίδευσιν παρὰ
τοῦ μὴ ἀρέσκοντος. Κριτίας δὲ καὶ Ἀλκιβιάδης οὐκ ἀρέσκοντος αὐτοῖς Σωκρά-
τους ὡμιλησάτην ὃν χρόνον ὡμιλείτην αὐτῷ, ἀλλ' εὐθὺς ἐξ ἀρχῆς ὡρμηκότε
προεστάναι τῆς πόλεως. ἔτι γὰρ Σωκράτει συνόντες οὐκ ἄλλοις τισὶ μᾶλλον
ἐπεχείρουν διαλέγεσθαι ἢ τοῖς μάλιστα πράττουσι τὰ πολιτικά. λέγεται γὰρ
Ἀλκιβιάδην, πρὶν εἴκοσιν ἐτῶν εἶναι, Περικλεῖ ἐπιτρόπῳ μὲν ὄντι ἑαυτοῦ,
προστάτῃ δὲ τῆς πόλεως, τοιάδε διαλεχθῆναι περὶ νόμων.

(C)   " Κάμμορε, μή μοι ἔτ' ἐνθάδ' ὀδύρεο, μηδέ τοι αἰὼν
Φθινέτω· ἤδη γὰρ σε μάλα πρόφρασσ' ἀποπέμψω.
Ἀλλ' ἄγε δούρατα μακρὰ ταμὼν ἁρμόζεο χαλκῷ
Εὐρεῖαν σχεδίην· ἀτὰρ ἴκρια πῆξαι ἐπ' αὐτῆς
Ὑψοῦ, ὥς σε φέρῃσιν ἐπ' ἠεροειδέα πόντον.
Αὐτὰρ ἐγὼ σῖτον καὶ ὕδωρ καὶ οἶνον ἐρυθρὸν
Ἐνθήσω μενοεικέ', ἅ κέν τοι λιμὸν ἐρύκοι,
Εἵματά τ' ἀμφιέσω· πέμψω δέ τοι οὖρον ὄπισθεν,
Ὡς κε μάλ' ἀσκηθὴς σὴν πατρίδα γαῖαν ἵκηαι,
Αἴ κε θεοί γ' ἐθέλωσι, τοὶ οὐρανὸν εὐρὺν ἔχουσιν,
Οἵ μευ φέρτεροί εἰσι νοῆσαί τε κρῆναί τε."

Ὡς φάτο, ῥίγησεν δὲ πολύτλας δῖος Ὀδυσσεὺς,
Καί μιν φωνήσας ἔπεα πτερόεντα προσηύδυ·
" Ἄλλο τι δὴ σύ, θεά, τόδε μήδεαι, οὐδέ τι πομπὴν,
Ἤ με κέλεαι σχεδίῃ περάαν μέγα λαῖτμα θαλάσσης.
Δεινόν τ' ἀργαλέον τε· τὸ δ' οὐδ' ἐπὶ νῆες ἐῖσαι
Ὠκύποροι περόωσιν, ἀγαλλόμεναι Διὸς οὔρῳ.

2. On what grounds are the Odyssey and the Iliad supposed by
some to have not been written by the same author?

II.

1. What difficulty is found in the Syntax of the first sentence of
extract (A)? How may it be avoided or explained?

2. Name the case and write (in all genders used) the nom. and gen.
sing. and nom. and dat pl. of each of the following:—

κερδῶν. ὑποδέσει, ὅτῳ, ἵλεῳ, ἐκείνῳ; δούρατα, μενοείκε'.

3. Note peculiarities of declensions of: υἱος, Σωκράτης, ὄρνις, θεός.

4. Write the Attic forms of:—

ἤματα, ἐσσί, ἠώς, 'εσχαθφιν, ζώοντες; κε, πίσυρες, ἵκηναι, πρόφρασσα,
φέρῃσιν.

5. Parse the following verbs, and give as many chief parts of them
as are found, viz.: prest., fut., perf., 1 aor. and 2 aor. in the act. and
perf., and 1 aor. in the pass.:—

παρέντες, δεδέσθαι, πιστεύσειεν, καταναλώσαντες, ἐσκόπει; ἀμφιέσω
προσηύδα, πέρωσιν, κέρασσε, ἠνώγει.

6. (a) Scan vss. 2, 6, 11, and account for quantity of final syllables,
   where necessary.

   (b) What Latin words are of the same origin as:

   αἰών, πῆξαι, ὕδωρ, οἶνον, ἐρυθρόν, εἵματα, ἔχουσιν, ῥίγησεν.

7. Explain the difference (in extract B) of:
   (a) *tenses* in ὡμιλησάτην, ὃν χρόνον ὡμιλείτην.
   (b) *negatives* in παρα τοῦ μὴ ἀρέσκοντος: οὐκ ἀρέσκοντος κ.τ.λ.
   (c) *cases* in the contrasted clauses οὐκ ἀρέσκοντος ἁ. Σωκράτους
   . . . . ἀλλ' . . . . ὡρμηκότε.

8. Give the rules for the cases of:—

   (Extract B) χρόνον: (προεστάναι τῆς) πόλεως: Σωκράτει;
   (Extract C) μοί: χαλκῷ: γαῖαν: μεύ: (οὐδέ) τι.

9. Translate into Greek :—The orator spoke his speech well, but no one replied to him. This fear of their enemies was the beginning of evil to the Greeks. The long walls were built of stone. The gods neither eat bread nor drink wine. The general purchased several vessels at no great sum. In the reigu of Cyrus the Persians advanced to a great pitch of power.

III.

(For Candidates seeking a place in the First or Second Class.)

3 P.M. TO 5.30 P.M.

1. Translate :—

Ἐὰν δὲ δὴ φίλους ἢ πόλιν ὠφελεῖν δέῃ, ποτέρῳ πλείων σχολὴ τούτων ἐπιμέλεσθαι, τῷ ὡς ἐγὼ νῦν ἢ τῷ ὡς σὺ μακαρίζεις διαιτωμένῳ; στρατεύοιτο δὲ πότερος ἂν ῥᾷον, ὁ μὴ δυνάμενος ἄνευ πολυτελοῦς διαίτης ζῆν ἢ ᾧ τὸ παρὸν ἀρκοίη; ἐκπολιορκηθείη δὶ πότερος ἂν θᾶττον, ὁ τῶν χαλεπωτάτων εὑρεῖν δεόμενος. ἢ ὁ τοῖς ῥᾳστοις ἐντυγχάνειν ἀρκούντως χρώμενος; ἔοικας, ὦ Ἀντιφῶν, τὴν εὐδαιμονίαν οἰομένῳ τρυφὴν καὶ πολυτέλειαν εἶναι· ἐγὼ δὲ νομίζω τὸ μὲν μηδενὸς δεῖσθαι θεῖον εἶναι, τὸ δ' ὡς ἐλαχίστων ἐγγυτάτω του θείου, καὶ τὸ μὲν θεῖον κράτιστον, τὸ δ' ἐγγυτάτω του θειου εγγυτάτω τοῦ κρατίστου.

Πάλιν δέ ποτε ὁ Ἀντιφῶν διαελγόμενος τῷ Σωκράτει εἶπεν, Ὦ Σωκρατες, ἐγὼ τοί σε δίκαιον μὲν νομίζω, σοφὸν δὲ οὐδ' ὁπωστιοῦν· δοκεῖς δέ μοι καὶ αὐτὸς τοῦτο γιγνώσκειν· οὐδένα γοῦν τῆς συνουσίας ἀργυρίον πράττει. καίτοι τό γε ἱμάτιον ἢ τὴν οἰκίαν ἢ ἄλλο τι ὧν κέκτησαι νομίζων ἀργυρίου ἄξιον εἶναι οὐδενὶ ἂν ιὴ ὅτι προῖκα δοίης, ἀλλ' οὐδ' ἔλαττον τῆς ἀξίας λαβών. δῆλον δὴ ὅτι εἰ καὶ τὴν συνουσίαν ῴου τινὸς ἀξίαν εἶναι, και ταύτης ἂν οὐκ ἔλαττον τῆς ἀξίας ἀργύριον ἐπράττου. δίκαιος μὲν οὖν ἂν εἴης, ὅτι οὐκ ἐξαπατᾷς ἐπὶ πλεονεξίᾳ, σοφὸς δὲ οὐκ ἄν, μηδενός γε ἄξια ἐπιστάμενος.

2. (a) Explain clearly the syntax of the clause τὸ δ' ὡς ἐλαχίστων ἐγγυτάτω τοῦ θέίου.

    (b) Account for μὴ ὅτι in οὐδενὶ ἂν ὅτι προῖκα δοίης.

    (c) μηδενός γε ἄξια ἐπιστάμενος : why μηδενός and not οὐδενός ?

3. (a) What are the special rules for the accentuation of the oblique cases of monosyllables of the third declension ? Mention the exceptions.

    (b) Distinguish εἰς, εἶς, εἷς ; ἤ, ἥ, ἦ, ἧ, ᾗ, ᾖ ; ἀλλά, ἄλλα ; ποιῆσαι, ποιήσαι, ποίησαι.

4. Write Epic forms (with accents) of:

    βασιλεῖ, ναυσι, θεοῦ, σου, αἱς, ποσι, ἐσθιω, οὐσαν.

5. What verbs with Epic inflexional forms have you met in the fifth book of the Odyssey ?

6. Form appropriate sentences (properly accentuated) to show the oases governed by : ἐπιθυμῶ, μάχομαι, φεύγω, ἐρωτῶ, πρέπει, διδάσκω.

neither was Egypt nor did it [work]. The spects purchased crystal vessels at no great cost... In the reign of Cyrus the Persian, advanced to a great pitch of power.

III.

(For Candidates seeking a place in the First or Second Class.)

3 P.M. TO 6.30 P.M.

1. Translate :—

[Greek passage — illegible / mirror-reversed]

2. (a) Explain clearly the syntax of the clause...

(b) Account for ... in the ... tense...

(c) ...

3. (b) What are the special rules for the construction of the oblique cases of nouns liable of the third declension ? Mention the exceptions.

(b) Distinguish the ...

nouns, nouns...

4. Write Ægô Syntax (with accents) of:

...

5. What verbs with Ægô inflexional forms have you met in the fifth book of the Odyssey ?

6. Form appropriate sentences (properly accentuated) to show the uses governed by ...

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878

Monday, April 15.—9 a. m.

SECOND YEAR.

MATHEMATICS.—EUCLID, Book VI : Conic Sections, The Parabola : Mensuration.

C. Macdonald, M.A........... ....*Examiner.*

1.   Find a mean proportional between two given lines.

2.   Define "duplicate ratio," and illustrate it by lines. Prove also that similar triangles are to one another in the duplicate ratio of their homologous sides.

3.   Enunciate and prove that proposition of the Sixth Book of which the 47th of the First Book is a particular case.

4.   If a perpendicular be let fall from the vertical angle of a triangle on the base, it shall be a fourth proportional to the diameter of the circumscribing circle of the triangle and the sides containing the vertical angle.

5.   Prove that in the Parabola the subtangent is equal to twice the abscissa, and the subnormal equal to twice the focal distance.

6.   Prove by the short method of the Sixth Book, that if chords of a circle cut each other, either within or without the circle, the rectangles of their segments are equal to each other.

7.   Cut off an mth part of a triangle by a straight line drawn parallel to one of its sides.

8.   If through the middle point of the base of a triangle a straight line be drawn cutting one side, the other produced, and also a line through the vertex parallel to the base, it shall be cut harmonically.

9.   In any triangle, prove that the base : sum of sides : : diff. of sides : diff. of segments of base.   State to what use this proposition can be applied.

10.   If upon each half of the diameter of a semi-circle a semi-circle be described, the radius of the circle inscribed in the curvilinear space is equal to $\frac{1}{3}$rd the radius of the first semi-circle. (Algebraically.)

11.   Express the area of a parallelogram in terms of the diagonals and the angle of their intersection.

12.   Shew that the area of a sector of a circle is, by the common notation, $\frac{A^\circ}{360^\circ} \pi r^2$. Also, find the area of a sector of 20° of arc, the radius being 525 links.

13.   The diameter of a well is 3 ft., and its depth 45 ft. Find the cost of the excavation at $2 per yard.

14.   A cubic foot of lead was cast into the form of a cone, the diameter of the base being 1 foot. What was the height of the cone ?

DALHOUSIE COLLEGE AND UNIVERSITY,

HALIFAX.

SESSIONAL EXAMINATIONS, 1879.

SECOND YEAR.

MATHEMATICS.—EUCLID, Book VI.; CONIC SECTIONS; TRIGONOMETRY; MENSURATION.

C. MACDONALD, M.A. .... *Examiner.*

1. Find a mean proportional between two given lines.

2. Define "duplicate ratio" and illustrate it by lines. Prove also that similar triangles are to one another in the duplicate ratio of their homologous sides.

3. Enunciate and prove that proposition of the Sixth Book of which the 47th of the first Book is a particular case.

4. If a perpendicular be let fall from the vertical angle of a triangle on the base, it shall be a fourth proportional to the diameter of the circle circumscribing the triangle and the sides containing the vertical angle.

5. Prove that in the Parabola the subnormal is equal to twice the abscissa, and the subtangent equal to twice the focal distance.

6. Prove by the direct method of the Sixth Book, that if two chords of a circle cut each other within or without the circle, the rectangles of their segments are equal to each other.

7. Cut off an nth part of a triangle by a straight line drawn parallel to one of its sides.

8. If through the middle point of the base of a triangle a straight line be drawn cutting one side, the other produced, and also a line through the vertex parallel to the base, it shall be cut harmonically.

9. In any triangle, prove that the base : sum of sides :: diff. of sides : diff. of segments of base. State to what use this proposition can be applied.

10. If upon each half of the diameter of a semi-circle a semi-circle be described, the radius of the circle inscribed in the curvilinear space is equal to ¼ the radius of the first semi-circle. [Algebraically.]

11. Express the area of a parallelogram in terms of the diagonals and the angle of their intersection.

12. Shew that the area of a sector of a circle is, by the expression noting

$$\text{area} = \frac{A \cdot r^2}{2}.$$ Also, find the area of a sector of 30° of arc, the radius being 320 links.

13. The diameter of a well is 5 ft., and its depth 45 ft. Find the cost of excavation at 92 per yard.

14. A cubic foot of lead was cast into the form of a cone, the diameter of the base being 1 foot. What was the height of the cone?

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

SATURDAY, APRIL 20.—9 A. M.

SECOND YEAR.

MATHEMATICS—EXTRA.

C. MACDONALD, M.A...........................*Examiner.*

1. If a straight line be perpendicular to a plane, every plane passing through it shall be perpendicular to the same plane.

2. If the opposite sides of a Quadrilateral inscribed in a circle be produced to meet in P, its diagonals shall intersect in the polar of P.

3. Two brothers shared an inherited estate equally thus : the first enjoyed it for a term of years, and then resigned it to the other in perpetuity. Find the equation to determine the time the first had the estate.

4. Give an account of the manner of calculating a Table of Natural Sines and Cosines : and shew how these are connected with the Logarithmic Sines, &c.

5. Given the area of a triangle (a^2) and also the angles (α, β, γ) : find the sides.

6. Having found the logarithmic series (base ε), viz :

$\log a = (a-1) - \frac{1}{2}(a-1)^2 + $ &c., shew how it is manipulated so as to obtain a workable formula for the calculation of logarithms.

7. Given $\tan \phi = \frac{1}{5} \tan 3 \phi$. Prove $\phi = 0$ or $\cos^{-1} \pm \frac{1}{4} \sqrt{14}$.

8. Assuming that the Binomial Theorem has been proved for n, a positive integer, prove it for the case of $n = \frac{p}{q}$, a positive fraction.

9. Every prime number greater than 3 is of the form $6 n \pm 1$; and, if the sum of the cubes of two consecutive odd numbers be divided by twice the whole number that lies between them, the quotient is an odd number.

SESSIONAL EXAMINATIONS, 1878.

SATURDAY, APRIL 20—9 A.M.

SECOND YEAR.

MATHEMATICS—EXTRA.

C. Macdonald, M.A. .... Examiner.

1. It a straight line is perpendicular to a plane, every plane passing through it be perpendicular to the same plane.

2. If the opposite sides of a quadrilateral inscribed in a circle be produced to meet in P, its diagonals shall intersect in the polar of P.

3. Two bodies shared an identical estate equally thus: the first enjoyed it nine years of peace, and the second enjoyed it to the other is perpetually. Find the equation to determine the time the first had the estate.

4. Give an account of the manner of calculating a Table of Natural Sines and Cosines: and show how these are connected with the Logarithmic Sines, &c.

5. Given the area of a triangle (s) and also the angle (α); (β, γ) find the sides.

6. Having found the logarithmic series (Lam x), viz:

$$\log x = (x-1) - \tfrac{1}{2}(x-1)^2 + \&c., \text{ show how it be manipulated so as to obtain a workable formula for the calculation of logarithms.}$$

7. Given $\tan\phi = \tfrac{1}{2}\tan\tfrac{1}{2}\phi$. Prove $\phi = b$ or $\cos^{-1}\tfrac{1}{7}\sqrt{11}$.

8. Assuming that the Binomial Theorem has been proved for a positive integer, prove it for the case of $n = \frac{p}{q}$, a positive fraction.

9. Every prime number greater than 3 is of the form $6n \pm 1$; and, if the sum of the cubes of two consecutive odd numbers be divided by twice the whole number that lies between them, the quotient is an odd number.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

MONDAY, APRIL 15.—3 P. M.

SECOND YEAR.

MATHEMATICS.—TRIGONOMETRY AND ALGEBRA.

C. MACDONALD, M.A.......................................*Examiner.*

1. What is meant by the equation $\dfrac{a}{r} = \vartheta$? Explain ϑ and hence distinguish clearly between π and $\pi°$. Find, also, the number of degrees, &c. in the unit of circular measure.

2. Shew the relation between the trigonometrical functions of $A°$ and $-A°$, and of $A°$ and $90° + A°$.

3. Find the range of values of the sine, tangent, and secant of $A°$, while the radius vector spins round through four quadrants.

4. Express tan A in terms (1) of sin A, (2) of cos A, (3) of $cosec$ A. Also, if $tan A = \dfrac{15}{8}$, find the other functions.

5. How many parts must be given, in order to determine a right angled triangle? Give two illustrations: (1) when an angle is given, (2) when an angle is not given. In each case, write the logarithmic equations.

6. What is "the ambiguous case" in the solution of plane triangles? Shew how it can be dealt with.

7. Give the formula for sin $(A + B)$; deduce (1) sin 2A, (2) sin 3A. How would you, if it were required of you, find sin 4A, &c. ?

8. Given two sides and the contained angle of a triangle : indicate how these parts can be treated so as to solve the triangle, and then find the third side without first finding angles. E.g.; the sides are $8\sqrt{2}$ and 12, and the contained angle is $45°$. Shew that the third side $= 9$ —.

9. The area of a triangle, by the usual notation, is
$$\tfrac{1}{4}\,(a+b+c)^2\, tan\,\tfrac{1}{2}\,A\, tan\,\tfrac{1}{2}\,B\, tan\,\tfrac{1}{2}\,C : \text{ and } Rr = \frac{abc}{4\,(a+b+c)}.$$

10. Prove (1) that $log\,1 = 0$, to any base : (2) that $log\,\dfrac{M}{N} = log\,M - log\,N$, and (3) $log\,MN = log\,M + log\,N$; (4) that the log of a Decimal Fraction differs from the log of the whole number expressed by the same digits only in its index.

11. Solve the exponential equation $a^{mx}\, b^{nx} = c$, and find the logarithm of 128 to the base $2^{\frac{3}{2}}$.

12. Shew that the expansion of $(a+x)^n$ is a finite series, only if n be a positive integer.

13. In what case is the number of combinations of n things, r together, greatest ? Illustrate, if you cannot prove.

14. The number of prime numbers is indefinitely great.

15. Compare the chances of drawing white in the two following cases : (1) an urn containing 1 white and two black balls, from which one is drawn ; (2) an urn containing four black and two white, from which two are drawn.

SESSIONAL EXAMINATIONS, 1878.

MONDAY, April 15.—9—12 a.m.

SECOND YEAR.

MATHEMATICS.—TRIGONOMETRY AND ALGEBRA.

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

1. What is meant by the equation $s = r\theta$? Explain θ and hence distinguish clearly between π and $\pi°$. Find, also, the number of degrees, &c., in the unit of circular measure.

2. Show the relation between the trigonometrical functions of $A°$ and $-A°$, and of $A°$ and $90°+A°$.

3. Find the range of values of the sine, tangent, and secant of $A°$, while the radius vector spins round through four quadrants.

4. Express $\tan A$ in terms (1) of $\sin A$, (2) of $\cos A$, (3) of $\operatorname{cosec} A$. Also, if $\tan A = \frac{15}{y}$, find the other functions.

5. How many parts must be given, in order to determine a right angled triangle? Give two illustrations: (1) when an angle is given, (2) when an angle is not given. In each case, write the logarithmic equations.

6. What is "the ambiguous case," in the solution of plane triangles? Show how it can be dealt with.

7. Give the formula for $\sin (A+B)$; deduce (1) $\sin 5A$, (2) $\sin 3A$. How would you, if it were required of you, find $\sin 4A$, &c.?

8. Given two sides and the contained angle of a triangle; indicate how these parts can be treated so as to solve the triangle; and shew that the third side can be found without first finding angles. E.g.: the sides are $4\sqrt{3}$ and 12, and the contained angle is $47°$. Shew that the third side $= 7$ —

9. The area of a triangle, by the usual notation, is
$$\tfrac{1}{4}\{a-\tfrac{1}{2}b+\cdots-c\}\tan\tfrac{1}{2}A \tan\tfrac{1}{2}C; \text{ and } R=\frac{abc}{4\Delta}=\tfrac{1}{4}(a+\cdots b+\cdots c)$$

10. Prove [1] that $\log 1 = 0$, to any base; (2) that $\log M = \frac{1}{\log N}$, and $\log \frac{M}{N} = \log M - \log N$; (3) $\log M N = \log M + \log N$; (4) that the log. of a Decimal Fraction differs from the log of the whole number expressed by the same digits only in its index.

11. Solve the exponential equation $a^{nx} = \cdots$, and find the logarithm of 128 to the base 2.

12. Shew that the expansion of $(a + x)^n$ is a finite series, only if n is a positive integer.

13. In what case is the number of combinations of n things r together, greatest? Illustrate, if you cannot prove.

14. The number of prime numbers is indefinitely great.

15. Compare the chances of drawing white in the two following cases: (1) an urn containing 1 white and two black balls, from which one is drawn; (2) an urn containing four black and two white, from which two are drawn.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

LOGIC AND PSYCHOLOGY.

Professor William Lyall, LL.D..............*Examiner.*

1. On what principle does Sir W. Hamilton retain and vindicate the nomenclature of Faculties, as applicable to mind? Wherein is he inconsistent with himself in doing so?

2. What view do we take of Mind? And what is our arrangement of the mental phenomena?

3. What do you understand by the Intuitions? How may it be shown that the mind is characterized by such states?

4. What are the Laws of Mind? Distinguish between Resemblance and Analogy. Explain Proportion, and give the law of Esthetic proportion.

5. What are the Practical Processes? Distinguish between Classification and Generalization. What are invented ideas in the latter process?

6. To what does Memory seem to be reducible? What is the practical value of this view? Give some account of the Laws of Association. To what single principle may they be reduced?

7. What is Imagination? Specify the different kinds of Imagination, and give the peculiarity in poetic Imagination.

8. What is the relation of Logic, as a Science, to Psychology?

9. How is Logic divided? What does the "Noetic" correspond with in our course? What does the Dianoetic or Dynamic?

10. Under what two quantities may Concepts be regarded? What are the Logical processes by which these counter quantities are amplified? What, on the other hand, is the resolution of these quantities, respectively? Show why a simple notion cannot be defined, and an individual notion cannot be divided.

11. Distinguish a Concept from a Judgment or Proposition?

12. What is the Conversion of Propositions? What propositions admit of being simply converted? How are A. and O. converted?

13. What is a Syllogism? How may Syllogisms be considered with reference to their intrinsic or internal character, and how with reference to their external form?

14. Give the rules of the simple Categorical Syllogism, in both quantities—Extensive and Intensive.

15. State the "modus ponendo tollens" and the "modus tollendo ponens" of the Disjunctive Syllogism—the "modus ponens," and the "modus tollens" of the hypothetical.

16. What is the Dilemma or Hypothetico—Disjunctive Syllogism? Give an example.

17. Give some account of the Fallacies.

18. Give the rules of Definition and Division respectively.

19. How are Probations divided by reference to their matter, their form, and their degree of cogency?

20. Give the rules of Probation, and show what fallacies follow from their violation.

SESSIONAL EXAMINATIONS, 1878.

LOGIC AND PSYCHOLOGY.

Professor WILLIAM LYALL, LL.D., ...Examiner.

1. On what principle does Sir W. Hamilton retain and vindicate the nomenclature of Identities, as applicable to mind? Wherein is he inconsistent with himself in doing so?

2. What view do we take of Mind? And what is our arrangement of the mental phenomena?

3. What do you understand by the Incidence? How may it be shown that the mind is constructed by such states?

4. What are the Laws of Mind? Distinguish between Resemblance and also Analogy. Explain Frequency, and give the law of Ballistic proportion.

5. What are the Practical Uncleness? Distinguish between Classification and Generalization. What are involved here in the latter process?

6. To what does Memory seem to be reducible? What is the practical value of this view? Give some account of the Laws of Association. To what single principle may these be reduced?

7. What is Imagination? Specify the different kinds of Imagination, and give the place necessarily in poetic Imagination.

8. What is the relation of Logic, as a science, to Psychology?

9. How is Logic evolved? What does the Deed? correspond with in our course? Which does the Discourse or Dynamic?

10. Under what two qualities may Concepts be regarded? What are the logical processes by which these mental qualities are amplified? Being on the other hand, is the resolution of these quantities, respectively? Show what a simple notion cannot be defined, and an individual notion cannot be divided.

11. Distinguish a Concept from a Judgment or Proposition?

12. What is the Conversion of Propositions? What propositions admit of being simply converted? How are A. and O. converted?

13. What is a Syllogism? How many Syllogisms be considered with reference to their attitude to internal elements, and how with reference to their external form?

14. Give the rules of the Simple Categorical Syllogism, as both quantities—Extensive and Deceptive.

15. State the "modus ponens tollens," and the "modus tollendo ponens" of the Disjunctive Syllogism—the "modus ponens," and the "modus tollens" of the Hypothetical.

16. What is an Intensive, or Hypothetical—Disjunctive Syllogism? Give an example.

17. Give some account of the Enthymeme.

18. State the rules of Definition and Division respectively.

19. How are Probations divided by reference to their matter, their form, and their degree of cogency?

20. Give the rules of Probation, and show what fallacies follow from their neglect.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

THURSDAY, APRIL 18.—9 A. M. TO 1 P. M.

SECOND YEAR OF ARTS COURSE.

JUNIOR CHEMISTRY.

PROF. G. LAWSON, Ph. D., LL.D., F.I.C............*Examiner.*

1. Two molecules of hydrogen chloride and one atom of zinc yield one molecule of zinc dichloride and two atoms of hydrogen. One molecule of sulphuric acid and one molecule of zinc oxide yield one molecule of zinc sulphate and one molecule of water. By heat, three molecules of manganese dioxide yield one molecule of manganoso-manganic oxide and two atoms of oxygen. Express these several statements in the form of chemical equations.

2. Give some account of the physical and chemical constitution of the Atmosphere, and the chemical effects exerted upon it by processes of combustion, the respiration of animals, and the growth of plants.

3. What is the constitution of Water as regards the proportions by weight and by volume of its constituent elements. In the state of steam, what proportion by volume does it bear to its elements.

4. Describe three of the principal inorganic compounds of Nitrogen.

5. Explain clearly what is meant by the terms Acid Oxide, Basic Oxide, Neutral Oxide, Salt.

6. Mention the proportions, as nearly as you can recollect, of the following gases absorbed by water, and state the effects of pressure and temperature on absorption :—Oxygen, Nitrogen, Carbon Dioxide, Chlorine, Hydrogen Sulphide, Hydrogen Chloride.

7. What is meant by Chemical Combination ? Solution ? Semi-solution ? Suspension ? Water of Crystallization ? What is a Hydrate ?

8. Describe the Chlorides of Mercury.

9. Describe the element Bromine, its sources, preparation, and mode of detecting Bromides.

10. Describe the process for manufacture of Sulphuric Acid, the properties of the Acid, and mode of testing for soluble Sulphates. Enumerate the more important insoluble metallic Sulphates. What is Persulphuric Acid, and what are its homologues.

11. Describe the recent experiment of Cailletet, which resulted in the solidification of Hydrogen.

SESSIONAL EXAMINATIONS, 1878.

Thursday, April 18 — 9 a.m. to 1 p.m.

SECOND YEAR OF ARTS COURSE.

JUNIOR CHEMISTRY.

Prof. G. Lawson, Ph. D., LL.D., F.I.C. .... Examiner.

1. Two molecules of hydrogen chloride and one atom of zinc yield one molecule of zinc chloride and one atom of hydrogen. One molecule of sulphate and one molecule of water. By heat, two molecules of manganese dioxide yield one molecule of manganous-manganic oxide, and two atoms of oxygen. Express these several statements in the form of chemical equations.

2. Give some account of the physical and chemical constitution of the atmosphere, and the detailed composition, carried upon it by processes of combustion, the respiration of animals, and the growth of plants.

3. What is the composition of Water, as regards the proportions by weight, and by volume of its constituent elements; in the state of steam, more particularly by volume does it bear to its elements.

4. Describe those of the principal inorganic compounds of Nitrogen.

5. Explain clearly what is meant by the terms Acid Oxide, Basic Oxide, Neutral Oxide, Salt.

6. Mention the proportions, as nearly as you can recollect, of the following gases absorbed by water, and state the effects of pressure and temperature on absorption — Oxygen, Nitrogen, Carbon Dioxide, Chlorine, Hydrogen Sulphide, Hydrogen Chloride.

7. What is meant by Chemical Combination? Solution? Sublimation? Evaporation? Water of Crystallization? What is a Hydrate?

8. Describe the Calcium or Mercury.

9. Describe the process whereby so many phosphates, and most of those, insoluble.

10. Describe the process for manufacture of Sulphuric Acid, the properties of the Acid, and mode of testing for soluble Sulphates. Distinguish the most important insoluble and soluble Sulphates. What is Permanganic Acid, and what are its properties?

11. Describe the recent experiment of Cailletet, which resulted in the solidification of Hydrogen.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

THIRD AND FOURTH YEARS.

LATIN. { TACITUS: ANNALS, BOOK I.
{ JUVENAL: SATIRES, III. X. XIII.

PROFESSOR J. JOHNSON, M.A......................*Examiner.*

I.

1. Translate :

(*a*) Multa patrum et in Augustam adulatio. Alii parentem, alii matrem patriae appellandam, plerique ut nomini Caesaris ascriberetur Juliae filius censebant. Ille moderandos feminarum honores dictitans, eademque se temperantia usurum in iis, quae sibi tribuerentur, ceterum anxius invidia et muliebre fastigium in deminutionem sui accipiens, ne lictorem quidem ei decerni passus est, aramque adoptionis et alia hujuscemodi prohibuit. At Germanico Caesari proconsulare imperium petivit ; missique legati qui deferrent, simul maestitiam ejus ob excessum Augusti solarentur. Quo minus idem pro Druso postularetur, ea causa, quod designatus consul Drusus praesenque erat.

(*b*) Sed femina, ingens animi, munia ducis per eos dies induit, militibusque, ut quis inops aut saucius, vestem et fomenta dilargita est. Tradit C. Plinius, Germanicorum bellorum scriptor, stetisse apud princip- ium pontis, laudes et grates reversis legionibus habentem. Id Tiberii animum altius penetravit. Non enim simplices eas curas nec adversus externos militem quaeri. Nihil relictum imperatoribus ubi femina manipulos intervisat, signa adeat, largitionem tentet ; tamquam parum ambitiose filium ducis gregali habitu circumferat, Caesaremque Caligulam appellari velit. Potiorem jam apud exercitum Agrippinam quam legatos, quam duces ; compressum a muliere seditionem, cui nomen principis obsistere non quiverit. Accendebat haec onerabatque Sejanus, peritia morum Tiberii, odia in longum jaciens, quae reconderet auctaque promeret.

(*c*)   Hi sunt qui trepidant et ad omnia fulgura pallent,
            Quum tonat exanimes primo quoque murmure coeli ;
            Non quasi fortuitus nec ventorum rabie sed
            Iratus cadat in terras et judicet ignis.
            Illa nihil nocuit, cura graviore timetur
            Proxima tempestas, velut hoc dilata sereno.
            Praeterea lateris vigili cum febre dolorem
            Si coepere pati, missum ad sua corpora morbum
            Infesto credunt a numine ; saxa deorum
            Haec et tela putant. Pecudem spondere sacello
            Balantem et Laribus cristam promittere galli
            Non audent ; quid enim sperare nocentibus aegris
            Concessum ? vel quae non dignior hostia vita ?

2. What is known of Juvenal ?

II.

1. Pontis, grates, murmure, rabie, ignis, febre, pecudem, Laribus : name the gender of each, and if it have any peculiarities of declension, mention them.

2.　Write notes on the syntax of the italicised words :

(*a*) Sed femina, ingens *animi*; (*b*) Acclamavere ut filius Blaesi ea legatione *fungeretur*; cetera *mandaturos*, ubi prima *provenissent*. (*c*) Calusidius strictum obtulit gladium, *addito acutiorem esse*. (*d*) Fama.... ut *quibusque bellum invitis aut cupientibus* erat, spe vel dolore accipitur. (*e*) Jamque (cespes) *pectori* usque creverat. (*f*) Omnibus in terris quae sunt *a Gadibus usque Auroram*.

3.　Translate and explain the following sentences :

(*a*) Populo et plebi *quadringenties tricies quinquies*, praetoriarum cohortium militibus singula *nummum* milia dedit.

(*b*) Percennius quidam, dux olim *theatralium operarum*.

(*c*) Achaiam ac Macedoniam onera deprecantes *levari* in praesens *proconsulari imperio tradique Caesari* placuit.

(*d*)　　　Munera nunc edunt, et *verso pollice vulgi*,
　　　　　Quem libet *occidunt* populariter.

(*e*)　　　Unus *Pellaeo juveni* non sufficit orbis.

4.　Give the meaning and derivation of : aliptes, stamen, induperator, examen, podagra, nummus, pinnirapus, bidens.

5.　Illustrate by examples the loss of various medial consonants (*a*) in Latin and (*b*) in French. (*c*) Shew how *s* came to be the sign of the plural in French, and explain the plurals in *-aux*.

6.　Translate into Latin :

Alexander the Great, having conquered Darius at Issus, sent some of his people to acquaint Darius' mother and his wife, whom he had taken prisoners, that he was coming to see them. Soon after he entered their tent, accompanied by Hephaestion, who was of the same age with the king, but superior in person. Accordingly the royal captives thinking that Hephaestion was the king, made their abeisance after the manner of the Persians. The mother of Darius being informed of her mistake threw herself at Alexander's feet and begged his forgiveness. The monarch, raising her with his hand, courteously replied, " You have made no mistake ; for this also is Alexander."

III.

For Candidates seeking a place in the First or Second Class.

1.　Translate the following extract, taken from a work not appointed to be read :

Ergo abolendo rumori Nero subdidit reos, et quaesitissimis poenis adfecit, quos per flagitia invisos vulgus Christianos appellabat. Auctor nominis ejus Christus, Tiberio imperitante, per procuratorem Pontium Pilatum suppliciis adfectus erat ; repressaque in praesens exitiabilis superstitio rursum erumpebat, non modo per Judaeam, originem ejus mali, sed per urbem etiam, quo cuncta undique atrocia aut pudenda confluunt celebranturque. Igitur primum correpti qui fatebantur, deinde indicio eorum multitudo ingens haud perinde in crimine incendii quam odio humani generis convicti sunt. Et pereuntibus addita ludibria, ut ferarum tergis contecti laniatu canum interirent, aut crucibus adfixi, aut flammandi, atque ubi defecisset dies, in usum nocturni luminis urerentur —*Tacitus.*

2.　What powers were obtained by Augustus with the titles *Princeps* and *Imperator* ?

3.　Give some account of the public revenues of Rome under Augustus.

(a) Nei Rauina, lingua aequet [b] Aedisanaveo ut fibus Iliesi, va Sapicteño Presperant, i testen mande bene; bibi prican proseteneur. (_i Chia- stäler structeon uboala giadine; sinila atoteana meu. (c) Proma.. bui noanaço fokum resulu aut cumscatam uter, que vel fokem scopher. [c] Janque (cu ya) perhor tepir cepeust A C' & Quuibus in tena quae quae sunt a facribus sapir fuveter.

8. Translate and explain the following sentences:

(a) Poenito et pede venitica a doctorica quae non praecidearum substrtam militibus singula usque uallu dadis.

(b) Praesentior probans, que diem traductious conavorto.

(c) Ambibon se Macedonian exten deprecantes sorei in praesens evo avantia; suppio tuoteuo Cesear picauit.

(d) Siunea anne alunt, ot orre pelloe ceje. (Quen tites occiiue populaitine.

(e) Lima Peldon aroer non sollid orbis.

6. Translate the following extract taken from a work not appointed to be read.

8. What powers were obtained by Augustus with the titles Pontifex and Proconsul?

8. Give some account of the public revenues of Rome under Augustus.

DALHOUSIE COLLEGE AND UNIVERSITY,

HALIFAX,

SESSIONAL EXAMINATIONS, 1878.

FRIDAY, APRIL 12TH :—9 A.M. TO 1 P.M.

THIRD AND FOURTH YEARS.

GREEK { DEMOSTHENES: PHILIPPICS, I., III.
{ PLATO: APOLOGIA SOCRATIS.

PROFESSOR J. JOHNSON, M.A .... *Examiner.*

I.

1. Translate :—

'Αλλ' ὅμως οὐθ' ὑμῖν οὔτε Θηβαίοις οὔτε Λακεδαιμονίοις οὐδεπώποτε, ὦ
ἄνδρες Αθηναῖοι, συνεχωρήθη τουθ' ὑπο τῶν Ἑλλήνων, ποιεῖν ὅτι βούλοισθε.
οὐδὲ πολλοῦ δεῖ, ἀλλὰ τοῦτο μὲν ὑμῖν, μᾶλλον δὲ τοῖς τότ' οὖσιν Ἀθηναίοις,
ἐπειδή τισιν οὐ μετρίως ἐδόκουν προσφέρεσθαι, πάντες ᾤοντο δεῖν, καὶ οἱ μηδὲν
ἐγκαλεῖν ἔχοντες αὐτοῖς, μετὰ τῶν ἠδικημένων πολεμεῖν, καὶ πάλιν Λακεδαι-
μονίοις ἄρξασι καὶ παρελθοῦσιν εἰς τὴν αὐτὴν δυναστείαν ὑμῖν, ἐπειδὴ πλεονά-
ζειν ἐπεχείρουν καὶ πέρα τοῦ μετρίου τὰ καθεστηκότα ἐκίνουν, πάντες εἰς
πόλεμον κατέστησαν, καὶ οἱ μηδὲν ἐγκαλοῦντες αὐτοῖς. καὶ τί δεῖ τοὺς ἄλλους
λέγειν ; ἀλλ' ἡμεῖς αὐτοὶ καὶ Λακεδαιμόνιοι, οὐδὲν ἂν εἰπεῖν ἔχοντες ἐξ ἀρχῆς
ὅτι ἠδικούμεθ' ὑπ' ἀλλήλων, ὅμως, ὑπὲρ ὧν τοὺς ἄλλους ἀδικουμένους ἑωρῶμεν,
πολεμεῖν ᾠόμεθα δεῖν. καίτοι πάνθ' ὅσα ἐξημάρτηται καὶ Λακεδαιμονίοις ἐν
τοῖς τριάκοντ' ἐκείνοις ἔτεσι καὶ τοῖς ἡμετέροις προγόνοις ἐν τοῖς ἑβδομήκοντα,
ἐλάττονά ἐστιν, ὦ ἄνδρες Ἀθηναῖοι, ὧν Φίλιππος ἐν τρισὶ καὶ δέκα οὐχ ὅλοις
ἔτεσιν, οἷς ἐπιπολάζει, ἠδίκηκε τοὺς Ἕλληνας· μᾶλλον δὲ οὐδὲ πολλοστὸν
μέρος τούτων ἐκεῖνα.

2. ἐν τοῖς τριάκοντ' ἐκείνοις ἔτεσι καὶ....τοῖς ἑβδομήκοντα,....ἐν τρισὶ καὶ
δέκα κ.τ.λ. :—Give the dates of these periods and the events that
marked the beginning of each.

3. Write a short account of the latter part of Demosthenes' life.

4. Δεινὸν μέντ' ἂν εἴη, καὶ ὡς ἀληθῶς τότ' ἄν με δικαίως εἰσάγοι τις εἰς δικασ-
τήριον, ὅτι οὐ νομίζω θεοὺς εἶναι ἀπειθῶν τῇ μαντείᾳ παὶ δεδιὼς θάνατον καὶ
οἰόμενος σοφὸς εἶναι, οὐκ ὤν. τὸ γάρ τοι θάνατον δεδιέναι, ὦ ἄνδρες, οὐδὲν
ἄλλο ἐστὶν ἢ δοκεῖν σοφὸν εἶναι, μὴ ὄντα· δοκεῖν γὰρ εἰδέναι ἐστὶν ἃ οὐκ οἶδεν.
οἶδε μὲν γὰρ οὐδεὶς τὸν θάνατον οὐδ' εἰ τυγχάνει τῷ ἀνθώπῳ πάντων μέγιστον

ὃν τῶν ἀγαθῶν, δεδίασι δ' ὡς εὖ εἰδότες ὅτι μέγιστον τῶν κακῶν ἐστί. καὶ
τοῦτο πῶς οὐκ ἀμαθία ἐστὶν αὐτη ἡ ἐπονείδιστος, ἡ τοῦ οἴεσθαι εἰδέναι ἃ οὐκ
οἶδεν ; ἐγὼ δέ, ὦ ἄνδρες, τούτῳ καὶ ἐνταῦθα ἴσως διαφέρω τῶν πολλῶν ἀνθρώ-
πων, καὶ εἰ δὴ τῳ σοφώτερός του φαίην εἶναι, τούτῳ ἄν, ὅτι οὐκ εἰδὼς ἱκανῶς
περὶ τῶν ἐν Ἅιδου οὕτω καὶ οἴομαι οὐκ εἰδέναι· τὸ δὲ ἀδικεῖν καὶ ἀπειθεῖν τῳ
βελτίονι, καὶ θεῷ καὶ ἀνθρώπῳ, ὅτι κακὸν καὶ αἰσχρόν ἐστιν οἶδα. πρὸ οὖν
τῶν κακῶν ὧν οἶδα ὅτι κακά ἐστιν, ἃ μὴ οἶδα εἰ ἀγαθὰ ὄντα τυγχάνει, οὐδέποτε
φοβήσομαι οὐδὲ φεύξομαι·

5. εἰς δικαστήριον :—Give a brief description of Socrates' trial ; the
court, judges, accusers, charges, verdict and sentence.

6. Ναύπακτος, Ἀμφίπολις, Δήλιον, Ἁλίαρτον :—Describe their situa-
tion and any historical events connected with them.

II.

1. Account for these cases :—πολλοῦ : τοῦτο μὲν ὑμῖν : Λακεδαιμονίοις
...... (εἰς τὴν αὐτὴν δυναστείαν) ὑμῖν : ὑπὲρ ὧν : προγόνοις. (Phil. III.)

2. Why is οὐκ ὤν used in the first sentence, and μὴ ὄντα in the next,
(Apol. Soc.) ?

3. εἰ δή τῳ σοφώτερός του φαίην εἶναι, τούτῳ ἄν :—Supply the ellipses
and give the rules for the cases.

4. (a) ὥσπερ γὰρ οἱ πλάττοντες τοὺς πηλίνους, εἰς τὴν ἀγορὰν χειροτονεῖτε
τοὺς ταξιάρχους καὶ τοὺς φυλάρχους, οὐκ ἐπὶ τὸν πόλεμον. (Phil. I.)
(b) τότ' ἐγὼ μόνος τῶν πρυτάνεων ἠναντιώθην ὑμῖν μηδὲν ποιεῖν παρὰ
τοὺς νόμους. (Apol. Soc.)
Translate and explain with notes on the officials mentioned.

5. What prepositions govern three cases ? Distinguish the mean-
ings of διά and παρά with their various cases.

6. What moods are employed in Final clauses ? Explain how they
are used, noting exceptions.

7. Write in Greek :—
I know that I am mortal.
He said that he would come on the third day.
He acted in such a manner, that he easily had what sufficed
him.
But having heard this, we fear that the city has been taken.
I came here that I might see the battle.

III.

1. Translate the following extract from a work not appointed to be read :—

Πολλὰ τοίνυν ἐχων ἔτι καὶ περὶ πολλῶν εἰπεῖν παύσομαι · καὶ γὰρ οὐ λόγων ἐνδείᾳ μοι δοκεῖ τὰ πράγματα οὔτε νῦν οὔτ' ἄλλοτε πώποτε φαύλως ἔχειν. ἀλλ' ὅταν πάντ' ἀκούσαντες ὑμεῖς τὰ δέοντα, καὶ ὁμογνώμονες ὡς ὀρθῶς λέγεται γενομενοι, τῶν λυμαίνεσθαι καὶ διαστρέφειν ταῦτα βουλομένων ἐξ ἴσου κάθησθε ἀκροώμενοι, οὐκ ἀγνοοῦντες αὐτούς, (ἴστε γὰρ εὐθὺς ἰδόντες ἀκριβῶς, τῖς μισθοῖ λέγει καὶ τίς ὑπὲρ Φιλίππου πολιτεύεται καὶ τίς ὡς ἀληθῶς ὑπὲρ τῶν βελτίστων,) ἀλλ' ἵν', αἰτιασάμενοι τούτους καὶ τὸ πρᾶγμα εἰς γέλωτα καὶ λοιδορίαν ἐμβαλ- όντες μηδὲν αὐτοὶ τῶν δεόντων ποιῆτε. ταῦτ' ἐστὶ τἀληθῆ μετὰ πάσης παρρη- σίας, ἁπλῶς εὐνοίᾳ τὰ βέλτιστα εἰρημένα, οὐ κολακείας καὶ βλάβης καὶ ἀπάτης λόγος μεστός ἀργύριον μὲν τῷ λέγοντι ποιήσων, τὰ δὲ πράγματα τῆς πόλεως τοῖς ἐχθροῖς ἐγχειριῶν. ἢ οὖν παυστέον τούτων τῶν ἐθῶν, ἢ μηδένα ἄλλον αἰτιατέον τοῦ πάντα φαύλως ἔχειν ἢ ὑμᾶς αὐτούς.

2. Illustrate by accentuated examples the different uses of the infinitive mood, and translate each example into Latin.

3. Translate into accentuated Greek :—Whenever speeches are made, Athenians, on the subject of Philip's acts in violation of the peace, I observe that the speeches on our behalf are both just and philanthropic, and that all who accuse Philip seem to say what is proper, but that nothing, so to say, is ever done.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

THURSDAY, APRIL 18.—9 A. M. TO 1 P. M.

THIRD YEAR OF ARTS COURSE.

SENIOR CHEMISTRY.

PROF. G. LAWSON, Ph. D., LL.D., F.I.C............*Examiner.*

1. Give an account of the history of the discovery of Oxygen, and of its more important properties, physical and chemical, as successively ascertained; describe the method by which the gas was first obtained, and explain the successful means employed for its condensation to the liquid state.

2. Describe Phosphoric Acid, with special reference to Calcium Phosphates as a source of plant food.

3. Describe Silicic Acid with reference to its union with bases, so as to show the constitution of glass, slags and mineral silicates.

4. In what way is the Equivalence of an Element determined. Certain Polygenic Elements exhibit varying degrees of Equivalency. Mention some of them, and explain how the true equivalency or atomicity of such can be arrived at.

5. Describe the process for the elementary or ultimate analysis of organic compounds.

6. Give a general outline of the classification of those Organic Compounds that do not contain Nitrogen. Compare the Hydrocarbons, Alcohols and Ethers, Glucoses, Glucosides, Polyglucossic Alcohols and Anhydrides, Organic Acids, Aldehydes.

7. Give an account of the Compound Ammonias or Amines, sufficient to indicate their general constitution, chemical properties, and modes of formation. What are phosphines? arsines? stibines?

8. 100 grains of a solution of Hydrocyanic Acid yield to Argentic Nitrate a precipitate weighing 9.926 grains. What is the percentage of anhydrous hydrocyanic acid in the solution?

9. Explain the chemical changes involved in the ripening of fruit, the malting of barley, the flow of maple sap.

10. Give a process for separating Morphia, and state what tests are to be employed for its detection. In what way is Iodic Acid prepared?

11. Indicate the principal forms of Albumen as they occur in plants and in animal tissues and fluids, noticing particularly the effects of heat and acids upon them.

1. Give an account of the History of the Discovery of Oxygen, and in more especial reference to the method by which its properties and original uses were first obtained, and explain the hundred usual employed for its combination to the liquid state.

2. Describe Phosphorus Acid, with special reference to Calcium Phosphate as a source of plant food.

3. Describe Nitric Acid with reference to its action such issues, as in their the constituents of plant, stone and mineral silicate.

4. In what way is the Equivalence of an Element determined? Explain Polyvalue Element, whole saying the degrees of equivalence. Mention some of them, and explain how the equivalence or equivalency of each can be expressed.

a. A method for process for the ascertaining or ultimate analysis of organic compounds.

5. Give a general outline of the classification of those Organic Compounds that do not contain Nitrogen. Compare the Hydrocarbons, Alcohols and Ethers, Glycerol, Glucosides, Polyglucose, Albumin and Dextrin, Gums, Acids, Aldehydes.

6. Give an account of the Compound Ammonias or Amines, sufficient to indicate their general constitution, chemical properties, and modes of formation. What are phosphines? Arsines? arsines?

7. 100 grains of a sulphate of Hydrosulphic Acid yield to Arsenic. Minus 5 produced weighing 4.200 grains. What is the percentage of arsenic in the compound as in the solution?

8. Give the chemical changes involved in the ripening of fruit, the maturing and finally the loss of weight occur.

10. Give a process for obtaining Morphine, and state what tests are to be employed for its detection. In what way is Iodic Acid prepared?

11. Indicate the principal forms of Albumen as they occur in plants and in animal tissues and fluids, noting particularly the effects of heat and acids upon them.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

WEDNESDAY, APRIL 17.—9 A. M TO 1 P. M.

THIRD YEAR.

EXPERIMENTAL PHYSICS.

J. J. MacKenzie, M.A., Ph. D.....................*Examiner.*

1. State fully the emission and undulatory theories of light. How are reflection and refraction explained according to each. Describe experiments by which the former was proved false.

2. Compare light and so-called "radiant heat." Explain (*a*) Adiabatic and Isothermal Curves; (*b*) Carnot's Reversible Engine; (*c*) Prevosts' theory of exchanges.

3. Describe the various methods for determining the number of vibrations corresponding to a given sound. Name and define the leading qualities of musical notes. Explain propagation of sound in air, and enumerate causes which influence its intensity. Give formmlæ for velocity of sound in gases.

4. Enumerate the various ways of generating electricity. Describe (*a*) Aepinus' and Symmer's theories; (*b*) Kundt's Electric Machine; (*c*) The Leyden Jar; (*d*) Thomson's Quadrant Electrometer; (*e*) Daniell's Battery.

5. Write a full account of Faraday's discoveries in Electricity and Magnetism. State theories of terrestrial Magnetism. Give Amperè's theory of Magnetism, with an outline of experiments from which deduced.

6. What departments of Physics may be included under "Radiation." Why?

7. The radiometer and telephone illustrate the correlation of forces. Explain how.—Give two other examples.

SESSIONAL EXAMINATIONS, 1878.

(WEDNESDAY, April 17.—9 A.M. to 1 P.M.)

THIRD YEAR.

EXPERIMENTAL PHYSICS

J. G. MacGregor, M.A., Ph.D. .... Examiner.

1. State fully the emission and undulatory theories of light. How are reflection and refraction explained according to each. [Describe experiments by which the former was proved false.]

2. Compare light and so-called "radiant heat." Explain (1) Athermancy and Isothermal Curves; (2) Carnot's Reversible Engine; (3) Prevost's theory of exchanges.

3. Describe the various methods for determining the number of vibrations corresponding to a given sound. Name and define the leading qualities of musical notes. Explain propagation of sound in air, and enumerate causes which influence its intensity. Give formula for velocity of sound in gases.

4. Enumerate the various ways of generating electricity. Describe (1) Daniell's and Grove's cells; (2) Smee's absorber; (3) Bunsen's Electric Machine; (4) The Leyden Jar; (5) Thomson's Quadrant Electrometer; (6) Faraday's battery.

5. Write a full account of Faraday's discovery in Magnetism and Diagnetism. State theories of terrestrial Magnetism. Give Ampere's theory of Magnetism, with an outline of experiments from which deduced.

6. What separation of Forces in —— is included under "Radiation."

7. The voltameter and —— Illustrate the connection of forces, taking how—Give two other examples.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

THIRD YEAR.

MATHEMATICAL PHYSICS.

J. J. MacKenzie, M.A., Ph. D...................*Examiner.*

1. Define velocity and acceleration of a point, and prove " parallelogram of velocities" for direction and magnitude. A train travels at the rate of 45 miles an hour ; rain drops seen from the window seem to make an angle tang.$^{-1}$ 1.5 with the vertical. Find the velocity of the rain drops.

2. Find space passed over in the nth. second by a point moving with uniform acceleration. Through what distance will a particle, falling freely from rest, pass during the 7th sec. $g = 32$.

3. A heavy particle falls from rest at the highest point of a vertical circle down a smooth chord. Find time of descent, and make three deductions from the formula found.

4. A particle (wt. $= w$, mass $= m$) slides from rest down a rough inclined plane, inclination $= \alpha$, and coef. of friction when in motion $= \mu$. Find (a) acceleration ; (b) velocity and space passed over at end of time t.

5. Two weights of mass m and m' ($m > m'$) are connected by a weightless string which passes over a smooth pulley. Find the acceleration of each and the tension of the string.

6. Prove that the path of a projectile in vacuo is a parabola, and find the formula for range on horizontal plane. Two balls projected from the top of a tower, velocity of each 50 ft. per sec., the first at an elevation of 30°, the second of 45°, strike the ground at the same point. Find height of tower ($g = 32$).

7. Two spheres of mass m and m' respectively ($m > m'$) moving in the same direction with velocities v and v' ($v > v'$) impinge directly upon each other. Find the velocity of each after impact, and change of kinetic energy produced. Coef. of elasticity $= e$.

8. Prove the "isochronism of the cycloid," and find the time of a complete oscillation of the simple pendulum. Find the depth of a mine having given the number of oscillations lost by a pendulum in a given time, the earth being supposed a sphere. To what use has the pendulum been applied in Physics.

9. Define potential and kinetic energy, and show that the kinetic energy of a mass m, which has passed over space s under constant acceleration f equals whole amount of work done upon it since commencement of motion.

10. State briefly the dynamical theory of gases, and prove that the pressure exerted by any gas on each unit of area of a plane $= \frac{2}{3}$ kinetic energy of unit of volume of the gas.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

METAPHYSICS AND ESTHETICS.

Professor William Lyall, LL.D..............*Examiner.*

1. What is the great question of Ontology, and how far may it be a question, or allowed to affect us in regard to our belief in God, the soul, and the world?

2. What is the difference between the question in Indian Philosophy, and that of the Ionics? What is the "primal arche" of Ionic speculation? What modern phase of speculation seems to run parallel or be coincident with this?

3. Who was the founder of the Eleatic School? What precise question did it propose? In solving it what new phase of philosophy did Parmenides inaugurate?

4. How do the doctrines of Parmenides and Democritus come into collision with each other? Show how what each respectively denies must be assumed in the very act of denial.

5. State the precise stand-point of the Sophists, and the difference between them and the Sceptics of a later period?

6. What is the place of Socrates in Philosophy?

7. State what was the characteristic doctrine of Plato, and its precise value in speculation. Does the doctrine of Aristole in any essential particular contradict that of Plato? Show how it does not.

8. What element, imported into Platonism, gave rise to the New Academy, and how may this element be explained or accounted for?

9. What was the "Faith" of Philo, and how was it inconsistent with Philosophy? Give some account of Neoplatonism, and especially of the doctrines of Plotinus.

10. What question principally occupied the schools, and what is its history to the present day? How may this be shown to be the Ontological question of Ancient Speculation?

11. What is Aristotle's division of the Mental Phenomena? What states does it omit, and on what ground does it seem the omission of these states was vindicated? What is the objection to this mode of regarding mind?

12. How have the Emotions, or Passions, been hitherto regarded and classified?

13. From what point of view have we regarded them, and what is our classification of these states? Under which of the generic states do we find the Esthetic Emotion? Show the relation it holds to these states.

14. Give some account of the theories on the subject of the Sublime and Beautiful. Show wherein Alison's theory, and that of Cousin, may be held to accord, and wherein they differ?

15. What is Burke's account of these states, and how do the conditions of the sublime especially seem to confirm Alison's Theory on the general subject? How may the view be carried up to a higher principle of generalization or theoretic exposition?

16. Analyse the Desire of Worth or value. Give Reid and Stewart's enumeration, respectively, of the Desires. What is faulty in this way of regarding the desires?

17. What is the peculiarity of Conscience, and what is its place among the active powers?

18. What views have been taken of the Will?

19. Is it anything more than the prevailing Desire, or than the Optative state?

20. Wherein may be said to consist its freedom?

SESSIONAL EXAMINATIONS, 1878.

METAPHYSICS AND ETHICS.

Professor WILLIAM LYALL, LL.D. .... Examiner.

1. What is the great question of Ontology, and how far may it be a question, or allowed to affect us in regard to our belief in God, the soul, and the world?

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14. Give some account of the theories on the subject of the Sublime and Beautiful. Show wherein Alison's theory, and that of Cousin, may be held to accord, and wherein they differ.

15. What is Hartley's account of these states, and how do the conditions of the soul that specially seem so obvious in Alison's Theory, on the general principle of association expand? How may the view be carried up to a higher principle of generative or otherwise cognition?

16. Analyze the theory of Worth, or value. Give Reid and Stewart's enumeration, respectively, of the Duties. What is lastly in this way of regarding the duties?

17. What is the peculiarity of Conscience, and what is to be place among the active powers?

18. What views have been taken of the Will?

19. Is it any thing more than the prevailing Desire, or than the Spontaneous state?

20. If how far may be said to contrive its freedom?

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

SATURDAY, APRIL 20TH., 1878.

THIRD YEAR.

FRENCH.

JAMES LIECHTI.................................*Examiner.*

Translate : I. *Le Comte.* Le Baron de Saldorf, son envoyé doit arriver incessamment pour négocier cette grande affaire....Il y a entre nous d'anciennes rivalités ; et, à quelque prix que ce soit, il faut que je l'emporte sur lui.

La Marq. Si cependant le prince ne voulait pas se marier.

Le Comte. Il n'est pas le maître de s'y opposer..Il se doit à l'état.

> Des peuples voulant le bonheur,
> Les princes, dans ces alliances,
> Consultent rarement leur coeur :
> Mais ils cèdent aux convenances..
> Ils ne sont pas les seuls, je crois ;
> Et, dans la ville et les provinces
> Je sais bien des maris bourgeois
> Qui sont heureux..comme des princes..

Vous sentez bien que, depuis mon arrivée, depuis cette nuit, je n'ai pas perdu mon temps....J'ai déjà su me ménager des intelligences qui me tiendront au courant de tout ce qui se passe..et de plus, j'ai eu ce matin une entrevue avec le Grand-Duc..qui est fort bien disposé..mais qui ne se prononce pas encore.—*Scribe.* (Le diplomate).

II. Est-ce donc à dire qu'il n'y ait aucun bien dans l'univers ? et peux-tu confondre ce qui est mal par sa nature avec ce qui ne souffre le mal que par accident ? La vie passive de l'homme n'est rien et ne regarde qu'un corps dont il sera bientôt délivré ; mais sa vie active et morale, qui doit influer sur tout son être consiste dans l'exercice de sa volonté. La vie est un mal pour le méchant qui prospère, et un bien pour l'honnête homme infortuné, car ce n'est pas une modification passagère, mais son rapport avec son objet, qui la rend bonne ou mauvaise.—*J. J. Rousseau.*

III. J'avais lieu d'être content de mon partage. Cela m'inspira une nouvelle ardeur pour la médecine. Le lendemain, dès que j'eus dîné, je repris mon habit de substitut, et me remis en campagne. Je visitai plusieurs malades que j'avais inscrits, et je les traitai tous de la même manière, bien qu'ils eussent des maux différents. Jusques-là les choses s'étaient passées sans bruit, et personne, grâce au ciel, ne s'était encore révolté contre mes ordonnances ; mais quelque excellente que soit la pratique d'un médecin, elle ne saurait manquer de censeurs. J'entrai chez un marchand épicier qui avait un fils hydropique. J'y trouvai un petit médecin brun qu'on nommait le docteur Cuchillo, et qu'un parent du maître de la maison venait d'amener. —*Lesage* (Gil Blas).

IV. Le père connaît les besoins de son fils ; faut-il à cause de cela que le fils n'ait jamais une parole de demande et d'actions de grâces pour son père ?—Il passe quelquefois sur les campagnes un vent qui dessèche les plantes, et alors on voit leurs tiges flétries pencher vers la terre ; mais, humectées par la rosée, elles reprennent leur fraîcheur, relèvent leur tête languissante. Il y a toujours des vents brûlants, qui passent sur l'âme de l'homme, et la dessèchent. La prière est la rosée qui la rafraîchit.— *Lamennais.*

Translate into French : England has numerous colonial establishments. —Many men are old children. This politician has many opponents, but he has no enemies.—An honorable name and a good education are the finest inheritance a father may leave (léguer) to his children.—I have been speaking prose for more than forty years without my knowing it, said Jourdain.—It is as easy to deceive oneself without noticing it, as it is easy to deceive others without their perceiving it.—Among the Ancients, plays were given in honor of the Gods.—The best French is spoken at Tours and Blois.

Very few people are good economists of their fortune, and still fewer of their time ; and yet of the two, the latter is the most precious. I heartily wish you to be a good economist of both. Young people are apt to think they have so much time before them, that they may squander what they please of it, and yet have enough left.—I must earnestly recommend to you the care of those minutes, and quarters of hours, in the course of the day, wnich people think too short to deserve their attention.—*Chesterfield*.

(1). Give the etymology of the following words, simulating an English form : *beef-eater, surgeon, periwig, curfew, o yes !* Write the Anglo-Norman and Anglo-Saxon appellations of : *boeuf, veau, mouton, porc, venaison, poulet*.

(2). Distinguish between : dès–des ; à–a ; çà–ça ; où–ou ; mûr–mur ; sûr–sur ; dû–du ; plû–plu ; tû–tu ; tâcher–tacher ; pêcher–pécher.

(3). *Faut, voulait, crois, tiendront, souffre, repris, saurait, venait (I. II. III)*. Write the participles ; the 3rd pers. pl. Ind. present ; the 3rd pers. sing. of the subj. pres. and past.

(4). Explain peculiarities in the construction of the sents. : quelque prix que ce soit ; il faut que je l'emporte ; elle ne saurait manquer ; bien qu'ils eussent ; venait d'amener (I. II. III.)

(5). *Whatever* may be written in *one* and in *two* words. Explain and translate : Whatever advantages Russia may have gained.—Whatever may be Russia's intentions.—It is *some* fifty years since the first railway was built. We have been twenty *odd* years in the country. *Some* and *odd* are expressed by the same word.

(6). What is the distinction between : Il faut *plus qu'un* homme pour faire cela, and il faut *plus d'un* homme pour faire cela. Give an ex. showing when *less than* is translated *moins de* instead of *moins que*.

(7). Illustrate, giving complete sents., the various parts of speech *que* may represent. Connect *que* with *à moins*, and shew by an ex how that term affects the verb. Write the same sent. by using *à moins de* instead of *à moins que*.

(8). Form sentences showing how *do, did, would, could, ought to, ought to have* are translated. Give the English for : Faute d'argent ; peut s'en fallut ; il avait beau vanter ; avoir tort ; savoir mauvais gré ; demeurer court ; savoir à quoi s'en tenir ; il y va de ton intérêt.

(9). Shew by exs. that *en* and *y*, when pronouns, correspond with the prepos. *de* and *à*.

(10). Write the feminine of : *bénin, las, sec, roux, vieux, tiers, fou, protecteur, nul, favori, gentil, ambigu, long, grec*. Illustrate the agreement of the adject. with two nouns of different genders. Explain the position of the adj. in the sents. A great man. A tall woman. A small black dog. The modern Greek language.

(11). Define the place of *Adverbs*, giving short exs. Name those which follow the *partic.* and the *Infinit.* Mention the compound adverbs formed from : *per totum ; de post ; ad illam horam ; jam diu ; in simul ; subinde*. Explain the adverbial forms : *naguère, peut-être ; pêle-mêle*.

(12). Exemplify the agreement of the *past participle* of a *transit.* verb conjugated with (*a*) *avoir*, (*b*) *être* ; of an *intransit* verb conjug. with *avoir* ; of a *reflective* verb. Show that, in a certain case the part. is always *variable*. Explain the agreement and correct mistakes—if any—in the following : Les livres qu'on a faits venir d'Angleterre sont utiles. Les dames qui se sont parlées chez-vous, se sont écrit des lettres amusant.—Elle s'en est réjoui.—Les pluies qu'il a fait ont gâtées les rues.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

THURSDAY, APRIL 18TH.—9 A. M. TO 1 P. M.

ETHICS.

VERY REV. PRINCIPAL ROSS, D. D., ...*Examiner.*

1. Point out the difference between Physical laws and Moral laws,—between Physical causes and Moral causes,—and between Physical necessity and Moral necessity ;—and the importance of these distinctions.

2. What mental act immediately precedes action ? What excites the mind to perform this act ?

3. Shew that Necessity and Liberty are compatible terms.

4. Explain the different meanings of the phrase, *Self-determining power.* Which of these meanings sxpresses the correct view ?

5. Enumerate the various principles of action in the order of their tendency to improve the character.

6. Distinguish between the Moral Faculty and the Foundation of Virtue

7. State the Ethical Theory of the Stoics,—of Hutcheson,—of Adam Smith,—of Butler,—of Wardlaw. Which of these theories refer to the Moral Faculty ? and which to the Foundation of Virtue ?

8. In what sense of the word is Atheism impossible ? In what sense is it possible ?

9. How much does the Cosmological Argument for the existence of the Deity prove ?—the Teleological Argument ?

10. Produce direct arguments against the Theory of the Correlation of Physical, Vital, and Mental Forces.

11. Mention the usual arguments for the Immortality of the soul.

12. Why must the Moralist treat of Rights before he treats of Duties ?

13. Classify Rights,—the Rights of the Person.

14. A cargo of grain arrives at Rhodes in a time of great scarcity. The owner knows, while the Rhodians do not know, that a number of vessels laden with corn are on the way, and will probably arrive on the morrow. Is he in duty bound to communicate the intelligence to the purchasers ? Assign reasons for your answer.

POLITICAL ECONOMY.

1. Distinguish between *Politics* and *Political Economy.*

2. What are the requisites of Production ?

3. What is *Productive* Labor ?

4. By what means can the Productiveness of labor be increased ?

5. What advantages are secured by producing on a large scale ?

6. What are the Conditions of Value ? Which of these elements usually determines the Price ?

7. What are the properties of a good Circulating Medium ?

8. Enumerate the Necessary Functions of Government.

9. Point out some of the evils of unnecessary State-intervention.

10. Give examples of exceptions to the *Laisser-faire* principle.

SESSIONAL EXAMINATIONS, 1878.

TUESDAY, APRIL 16TH—9 A.M. TO 1 P.M.

ETHICS.

Very Rev. Principal Ross, D. D. .... Examiner.

1. Point out the difference between Physical laws and Moral laws,—between Physical causes and Moral causes,—and between Physical necessity and Moral necessity;—and the importance of these distinctions.

2. What mental act immediately precedes action? What excites the mind to perform this act?

3. Show that Necessary and Universal are separable terms.

4. Explain the different meanings of the phrase, Self-determining power. Which of these meanings supposes the correct view?

5. Enumerate the various principles of action in the order of their tendency to improve the character.

6. Distinguish between the Moral Faculty and the Foundation of Virtue.

7. State the Ethical Theory of the Stoics,—of Hutcheson,—of Adam Smith,—of Butler,—of Wardlaw. Which of these theories refer to the Moral Faculty? and which to the Foundation of Virtue?

8. In what sense of the word is Atheism impossible? In what sense is it possible?

9. How much does the Cosmological Argument for the existence of the Deity prove?—the Teleological Argument?

10. Produce direct arguments against the Theory of the Correlation of Physical, Vital, and Mental Forces.

11. Mention the usual arguments for the Immortality of the soul.

12. Why must the Moralist treat of Rights before he treats of Duties?

13. Classify Rights,—the Rights of the Person.

14. A cargo of grain arrives at Rhodes in a time of great scarcity. The owner knows, while the Rhodians do not know, that a number of vessels laden with corn are on the way, and will probably arrive on the morrow. Is he in duty bound to communicate the intelligence to the purchasers? Assign reasons for your answer.

POLITICAL ECONOMY.

1. Distinguish between Political and Practical Economy.

2. What are the requisites of Production?

3. What is Productive Labor?

4. By what means can the Productiveness of labor be increased?

5. What advantages are secured by producing on a large scale?

6. What are the Conditions of Value? Which of these elements usually determines the Price?

7. What are the properties of a good Circulating Medium?

8. Enumerate the Necessary Functions of Government.

9. Point out some of the evils of unnecessary State-interference.

10. Give examples of exceptions to the Laissez-faire principle.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

TUESDAY, APRIL 16.—9 A. M. TO 1 P. M.

FOURTH YEAR.

HISTORY.

PROFESSOR DeMILL, M.A........................*Examiner.*

1. Give a brief account of the struggle between Koshru 2nd and Heraclius. What were the chief events and measures of the reign of Leo the Isaurian?

2. Enumerate the causes that led to the development of the power of the Bishops of Rome down to the ninth century. Discuss the chief measures of the pontificate of Gregory 1st.

3. Narrate briefly the history of Germany during the reign of Rudolf 1st. Mention the chief events of the reign of Sigismund.

4. Give an outline of French history under Francis 1st. Give an account of the reign of Louis 14th.

5. Explain the political scheme of Alberoni. Give an account of the ministry of Pombal.

6. Write a short historical account of the Ommiades and Abbassides. Shew the influence of the Arabians upon the intellectual development of Europe.

7. Give a brief outline of Russian history from Peter the Great to Catherine 2nd. Enumerate the causes and effects of the French Revolution.

8. Give an account of the rise and decline of the scholastic philosophy. Write brief biographical sketches of the following—John Scotus Erigena, Gerbert, Thomas Aquinas, Duns Scotus.

9. Shew the progress of science during the 16th and 17th centuries. Give brief biographical sketches of the following—Telesius, Giordano Bruno, Tycho Brahe, Kepler.

10. Give a brief account of the Feudal System. Enumerate the chief incidents in the Revival of Learning.

DALHOUSIE COLLEGE AND UNIVERSITY,

HALIFAX

SESSIONAL EXAMINATIONS, 1878.

FOURTH YEAR.

HISTORY.

Professor Dickson, M.A. .... Examiner.

1. Give a brief account of the struggles between Saxon and Dane in England. When were the chief events and claimant of the right to the throne?

2. Illustrate the feudal spirit led to the development of the power of the barons. Of these show, as the most instance, Discuss the chief measures of the government of Gregory the.

3. Narrate the history of Chancery during the reign of Becket. Describe the chief events of the reign of Stephen.

4. Give an outline of French history under France first. Give an account of the reign of Louis XIII.

5. Describe the relations between England and Scotland, and show the influence of the division upon the institution of the Parliament of Europe.

6. Give a brief description of Rienzi's tribune. Describe the government of Italian Republics and show the political and character of the Roman Republican.

7. Review very briefly the rise and decline of the scholastic philosophy. Write short historical notices of the following—John Scotus, Erigena, Thomas Aquinas, Duns Scotus.

8. Give the period of where during the third and 14th centuries. One first historical account of the heretics—Lutheran, Quietism, Waldenses, Cathari, etc.

9. Give a brief account of the feudal system. Enumerate the chief conditions in the Method of Farming.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

TUESDAY, APRIL 16.—3 P. M.

FOURTH YEAR.

EARLY ENGLISH HISTORY.

PROFESSOR DeMILL, M.A...................... *Examiner.*

1. Explain the following terms—folcland, bocland, sac and soc, tol and team, wapentake, franchise.

2. Enumerate the privileges of royalty among the Anglo-Saxons.

3. Explain the nature of the Anglo-Saxon Witenagemot.

4. What was the origin of Domesday Book?

5. What were the chief provisions of Magna Charta?

6. Give an account of the origin of Parliamentary representation.

7. What were the chief measures of the Parliament of 1297?

8. Give an account of the proceedings of the Parliament of 1376.

9. The revolution of 1399 has been compared with that of 1688.

10. State the general causes of the growth of political liberty in England.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

THURSDAY, APRIL 18.—9 A. M. TO 1 P. M.

FOURTH YEAR.

CONSTITUTIONAL HISTORY.

PROFESSOR DeMILL, M.A...................... *Examiner.*

1. What were the principal circumstances in the polity of England at the accession of Henry VII ?

2. Show the defective security of the liberty of the subject under Elizabeth.

3. What was the origin of the differences among English Protestants ?

4. Discuss the question of the execution of Charles 1st.

5. What were the obstacles that prevented the assumption of the Crown by Oliver Cromwell ?

6. Explain the nature and the objects of the secret treaty of 1670.

7. The reign of James 2nd may be divided by several distinguishing points of time, which mark so many changes in the posture of the government.

8. Give a brief account of the law on treason.

9. Explain the Scottish Act of Security, and the Act of Union with England.

10. Give an account of the final reduction of Ireland, and the penal laws against the Catholics.

DALHOUSIE COLLEGE AND UNIVERSITY

HALIFAX,

SESSIONAL EXAMINATIONS, 1878.

TUESDAY, APRIL 16.—11 A. M. TO 1½ P. M.

FOURTH YEAR.

CONSTITUTIONAL HISTORY.

Professor DeMill, M.A. .... Examiner.

1. What were the principal alterations in the policy of England at the accession of Henry VII?

2. Show the defective remedy of the liberty of the subject under Tudors.

3. What was the origin of the differences among English Protestants?

4. Discuss the question of the succession of Charles I.

5. What were the influences that prevented the resumption of the Crown by Oliver Cromwell?

6. Explain the nature and the object of the several treaty of 1670.

7. The reign of Charles II may be divided by several distinguishing points of time, which each an event changes in the polities of the government.

8. Give a brief account of the law on treason.

9. Explain the Scottish Act of Security, and the Act of Union with England.

10. Give an account of the final reduction of Ireland, and the penal laws against the Catholics.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

MONDAY, APRIL 15.—9 A. M.

FOURTH YEAR.

HYDROSTATICS, OPTICS, ASTRONOMY.

C. MACDONALD, M.A..............................*Examiner.*

1.   A thin parallelogram is immersed in a fluid, one of its sides being in the surface.   Draw the diagonals and compare the fluid pressures on each of the four triangles.

2.   Find the centre of pressure of the uppermost of the triangles in the last example.   Also, divide the parallelogram by a line parallel to its upper edge, so that the pressure on the lower surface may be n times that on the upper.

3.   Light emanating from a point falls on a convex spherical mirror. Prove that the formula $\dfrac{1}{D} - \dfrac{1}{d} = \dfrac{1}{f}$.

Ex : A ball 3 inches in diameter is placed at a distance of 20 inches from a spherical mirror of 48.8 inches radius.   Find approximately the position and magnitude of the image.

4.   When a ray of light meets the common surface of two transparent media, a portion of it is reflected.   Prove this from your own observation ; and deduce from the proper formula the case in which the ray suffers total refraction.

5.   Explain what is meant by a "caustic curve."   Apply what you have said to account for the appearance, to an eye above the surface, of the level bottom of a sheet of clear water at rest.

6.   The formula for divergent light, incident on a concave spherical refracting medium is, according to usual notation, $\dfrac{\mu}{d} - \dfrac{1}{D} = \dfrac{\mu}{f}$.   Prove, and adapt it to converging light, and to convex surface.   And if $f = \dfrac{\mu r}{\mu - 1}$, shew how the formula can be used to find the principal focus of a lens whose surfaces are spherical.

7.   Find the centre of a lens, and shew its importance.

8.   Describe the Stereoscope fully.

9.   Give some account of the motions of the earth, stating their causes and periodicity.

10.   State and criticise "Bode's law."

11.   Find the latitute of a place where at the summer solstice there is no darkness during the 24 hours, and shew from a drawing that every place within the tropics has the sun right overhead twice a year.

12.   Describe the process for finding the moon's horizontal parallax. Shew that, this being known, the parallax for any lunar altitude is known; and give at least one example of the practical use of such knowledge.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

SATURDAY, APRIL 20.

FOURTH YEAR.

FRENCH.

JAMES LIECHTI, ESQ,.............................*Examiner.*

Traduisez :

I. *Curiace.*—Je vois que votre honneur demande tout mon sang,
  Que tout le mien consiste à vous percer le flanc ;
  Près d'épouser la soeur, qu'il faut tuer le frère ;
  Et que pour mon pays j'ai le sort si contraire :
  Encor qu'à mon devoir je coure sans terreur,
  Mon coeur s'en effarouche, et j'en frémis d'horreur ;
  J'ai pitié de moi-même, et jette un oeil d'envie
  Sur ceux dont notre guerre a consumé la vie ;
  Sans souhait toutefois de pouvoir reculer,
  Ce triste et fier honneur m'émeut sans m'ébranler.
  J'aime ce qu'il me donne, et je plains ce qu'il m'ôte ;
  Et si Rome demande une vertu plus haute,
  Je rends grâces aux dieux de n'être pas Romain,
  Pour conserver encor quelque chose d'humain.   *Corneille.*

II. *Elise.*—Oui, je conçois assez, mon frère, quel doit être votre chagrin.

Valère.—Ah ! ma soeur, il est plus grand qu'on ne peut croire. Car enfin, peut on rien voir de plus cruel que cette rigoureuse épargne qu'on exerce sur nous, que cette sécheresse étrange où l'on nous fait languir ? Hé ! que nous servira d'avoir du bien, s'il ne nous vient que dans le temps que nous ne serons plus dans le bel âge d'en jouir, et si, pour m'entretenir même, il faut que maintenant je m'engage de tous côtés ; si je suis réduit avec vous á chercher tous les jours le secours des marchands, pour avoir moyen de porter des habits raisonnables ? Enfin, j'ai voulu vous parler pour m'aider á sonder mon pére sur les sentiments où je suis ; et, si je l'y trouve contraire, j'ai résolu d'aller en d'autres lieux avec cette aimable personne, jouir de la fortune que le ciel voudra nous offrir. Je fais chercher partout pour ce dessein de l'argent à emprunter ; et si vos affaires, ma soeur, sont semblables aux miennes, et qu'il faille que notre père s'oppose à nos désirs ; nous le quitterons là tous deux, et nous affranchirons de cette tyrannie où nous tient depuis si longtemps son avarice insupportable.

Molière, (L'Avare.)

III. *Athalie.*——Dans ce désordre à mes yeux se présente
  Un jeune enfant couvert d'une robe éclatante,
  Tels qu'on voit des Hébreux les prêtres revêtus.
  Sa vue a ranimé mes esprits abattus ;
  Mais lorsque, revenant de mon trouble funeste,
  J'admirais sa douceur, son air noble et modeste,
  J'ai senti tout-à-coup un homicide acier
  Que le traître en mon sein a plongé tout entier.
  De tant d'objets divers le bizarre assemblage
  Peut être du hasard vous paraît un ouvrage :
  Moi-même quelque temps, honteuse de ma peur,

Je l'ai pris pour l'effet d'une sombre vapeur.
Mais de ce souvenir mon âme possédée
A deux fois en dormant revu la même idée :
Deux fois mes tristes yeux se sont vu retracer
Ce même enfant toujours tout prêt à me percer.   *Racine.*

IV.   Louis XIV, ni pacifique, ni guerrier : il avait les formes de la justice,
de la politique, de la dévotion et l'air d'un grand roi.   Doux avec ses
domestiques, libéral avec ses courtisans, avide avec ses peuples, inquiet avec
ses ennemis, despotique dans sa famille, roi dans sa cour, dur dans ses con-
seils, enfant dans celui de conscience, dupe de tout ce qui joue le prince, les
ministres les femmes et les dévots ; toujours gouvernant et toujours
gouverné ; malheureux dans ses choix, aimant les sots, souffrant les talens ;
craignant l'esprit ; sérieux dans ses amours, et, dans son dernier attache-
ment, faible à faire pitié, aucune force d'esprit dans les succès ; de la sécurité
dans les revers, du courage dans sa mort.   Il aima la gloire et la réligion,
et on l'empêcha toute sa vie de connaître ni l'une ni l'autre.   Il n'aurait
eu presque aucun de ces défauts, s'il avait été un peu mieux élevé, et s'il
avait eu un peu plus d'esprit.—*Montesquieu.*

Traduisez en Français :—I consider a human soul without education like
marble in the quarry, which shows none of its inherent beauties until the
skill of the polisher fetches out the colours. . . . Education, after the same
manner, when it works upon a noble mind, draws out to view every latent
virtue and perfection, which, without such helps, are never able to make
their appearance.   The philosopher, or the hero, the wise, the good, or the
great man, very often lie hid in a plebeian, which a proper education might
have disinterred and have brought to light.—Discourses of morality, and
reflections upon human nature, are the best means we can make use of to
improve our minds, and gain a true knowledge of ourselves.—*Addison.*

Questions :

1.   *Quelque, quelconque, tel-tel, qui que, quiconque, on.*   Quelle forme ces
mots avaient-ils en vieux français et en latin.   Par quels termes en fran-
çais moderne représente—t-on : *quis que unus, alter, fortasse, ens, qualis qualis,
plurimus, aliud*   Montrez par un ex. que *tout* (adv.) peut être *variable*
devant un part. passé.

2.   Indiquez la différence entre : *Il touche au piano* et *il touche du piano ;
savant* et *sachant* ; *volontaire, volontairement* et *volontiers.*   Donnez le genre et
la signification des subst. *pois, poix, poids,* traduisez les paronymes : *court*
(adj.) *cours* (v.), *le cours, la cour, la course, le courre.*

3.   Quand un adj. demande-t-il la prépos. *de* avant l'infinit.   Donnez un
ex. Nommez quelques adjs. qui régissent différentes prépos. avant les noms
de personnes et les noms de choses.   Traduisez : Art is not responsible to
anyone for the faults of the artisan.

4.   Neither the sun nor death can be looked at fixedly.   Your friend
studies and applies himself entirely to Natural Philosophy and Chemistry.
The Athenians passed their time in listening to their orators, and in attend-
ing games, races, and theatres.   We prefer riches, which are, alas ! the
source of our misfortunes, to a happy mediocrity.   Traduisez ces phrases et
expliquez-en la construction du *sujet* et du *régime.*

5.   Encor *qu'*à mon devoir. . . . (I.) Faites l'analyse du mot *que.*   Mon-
trez par des exs. que ce mot, en certains cas, demande la nég. *ne* avant le
verbe.   Je ne puis travailler *qu'*aussitôt je *ne* sois malade.   Pourquoi *ne*
dans cette phrase.

6.   Eclaircissez par des exs. dans quels cas on doit se servir des périphrases
c'est-qui, c'est-que ?   Appliquez cette circonlocution au *régime indirect* et à
l'adverbe dans les phrases :   The author has dedicated his work to his
parent.   Yesterday your friend has exhibited *(montrer)* the telephone.

7. Quelle différence y a-t-il entre : *intrigant* et *intriguant* ; *fabricant* et *fabriquant* ; *vacant* et *vaquant* ; *excellent* et *excellant* ; *président* et *présidant*. Nommez au moins trois verbes qui n'ont point *d'adjectif verbal*.

8. Voulez-vous de l'eau ?—Attendez voir ; oui, j'en veux un petit peu. Les personnes ont en eux les semences de tous les sentiments. Dites quelles sont les figures de syntaxe dans ces phrases. Sont-elles régulières ou non ?

9. La forme verbale en *ant* est tantôt *variable*, tantôt *invariable*. Posez quelques règles à ce sujet. Traduisez : The animals living in a manner more conformable to nature, must be subject to less evils than we.—The Queen mother wandering *(errant)* for a long time (about), died at Cologne in distress, *(pauvreté)*.

10. Quel est l'accord des *part. passés* dans les phrases suivantes : The little good conduct which that young man has shown, has won *(mériter)* him your confidence.—Everybody has left excepting you and I.—Cette vérité, je vous l'ai *déclarée*, m'étonne.—Elles se sont *écrit* des lettres.—Les arbres que j'ai *vu* abattre.—Ces airs, je les ai *entendus* chanter.—Je les ai *laissé* tuer.—Corrigez les part. passés incorrects.

11. Scandez et corrigez (donnant les règles de versification) les vers suivants :

> Il est donc vrai, Alcippe, dans peu tu te marries.—
> Les hommes s'empressent après l'or et se foulent.—
> Et redire avec tant de plaisir les exploits.—

12. Quels sont les quatre hommes qui ont le plus contribué à rendre glorieux l'âge de Louis XIV. Quels services ont-ils rendus à la littérature, et quels sont leurs chefs-d'oeuvre.

13. Comment s'appelle le plus célèbre poëte didactique du XVIII. siècle. Par quoi s'est-il distingué principalement, et quel est son meilleur ouvrage.

14. Quelle est l'influence qu'avaient Châteaubriand et Made. de Staël sur la littérature du XIX. siècle. Qui est-ce qui a contribué à la réforme historique. Le caractère du roman ? Qu'y a-t-il à dire à l'égard de Balzac.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

SATURDAY, APRIL 20TH.—9 A. M. TO 1 P. M.

FOURTH YEAR.

GERMAN.

JAMES LIECHTI, ESQ.,.. ....*Examiner*

Translate : I. Lessing's *Nathan der Weise.*

> *Saladin*....——Spiele nicht mit mir!—Ich dächte
> Dass die Religionen, die ich dir
> Genannt, doch wohl zu unterscheiden wären.
> Bis auf die Kleidung : bis auf Speis' und Trank !
> *Nathan.*—Und nur von Seiten ihrer Gründe nicht.—
> Denn gründen alle sich nicht auf Geschichte?
> Geschrieben oder überliefert !—Und
> Geschichte muss doch wohl allein anf Treu'
> Und Glauben angenommen werden?—Nicht?—
> Nun wessen Treu' und Glauben zieht man denn
> Am wenigsten in Zweifel? Doch der Seinen?
> Doch deren Blut wir sind? doch deren, die
> Von Kindheit an uns Proben ihrer Liebe
> Gegeben? die uns nie getäuscht, als wo
> Getäuscht zu werden uns heilsamer war?—
> Wie kann ich meinen Vater weniger,
> Als du den deinen glauben? Oder umgekehrt :
> Kann ich von dir verlangen, dass du deine
> Vorfahren Lügen strafst, um meinen nicht
> Zu widersprechen? Oder umgekehrt.
> Das Nämliche gilt von den Christen. Nicht?—

II. Friedrich Schlegel. *Die heilige Cäcilia.* (Gemälde von Raphael).

Das herrschende Motiv in diesem Bilde ist das hinreissende Gefühl der innigsten Andacht, die, im irdischen Herzen nicht mehr Raum findend, in Gesänge ausbricht ; sowie man auch wohl auf grossen Anbetungsbildern des Perugino alles in eine fromme Begeisterung hinschmelzen sieht. Aber da ist es eine stille Andacht, wie die feierlichen, langezogenen Töne alter Kirchenhymnen ; in Raphael's Bilde ist die Beziehung auf Musik noch bestimmter, und es ist die ganze geheimnissvolle Tiefe und Wunderfülle dieser magischen Kunst andeutend hier entfaltet. Der tiefsinnig in sich versunkene Paulus, mit dem gewaltigen Schwert zur Linken, erinnert uns an jene alte Kraft der Melodien, welche Thiere bezähmen und Felsen bewegen konnte, aber den Menschensinn zerreissen, den Geist und die Seele durchschneidend.

III. Schiller's *Wilhelm Tell.* (Tell's soliloquy).

> Komm du hervor, du Bringer bittrer Schmerzen,
> Mein theures Kleinod jetzt, mein höchster Schatz—
> Ein Ziel will ich dir geben, das bis jetzt
> Der frommen Bitte underchdringlich war ;—
> Doch *dir* soll es nicht widersteh'n.—Und du,
> Vertraute Bogensehne, die so oft
> Mir treu gedient hat in der Freude Spielen,
> Verlass' mich nicht im fürchterlichen Ernst !
> Nur jetzt noch halte fest, du treuer Strang,
> Der mir so oft den herben Pfeil, beflügelt ;
> Entränn' er jetzo kraftlos meinen Händen,
> Ich habe keinen zweiten zu versenden.—
> Auf diese Bank von Stein will ich mich setzen,
> Dem Wanderer zur kurzen Ruh' bereitet ;—
> Denn hier ist keine Heimat :—Jeder treibt
> Sich an dem Andern rasch und fremd vorüber
> Und fraget nicht nach seinem Schmerz.—Hier geht
> Der sorgenvolle Kaufmann und der leicht
> Geschürzte Pilger—der andächt'ge Mönch,
> Der düstre Räuber und der heitre Spielmann,
> Der Säumer mit dem schwer belad'nen Ross,
> Der ferne herkommt von der Menschen Ländern ;

Denn jede Strasse führt an's End' der Welt.
Sie alle ziehen ihres Weges fort
An ihr Geschäft—und meines ist der Mord !—

Translate into German: Grimm's fable, *"The Wolf and the Man."*

The wolf, boasting he would attack a man notwithstanding his strength, if he could but see one, the fox went with him to the road by which the huntsman came every day. First came an old discharged soldier. "Do you call that a man ?" asked the wolf. "No," answered the fox, "that has been one." After that came a little boy on his way to school. "Is that a man ?" "No, that will be one." At last the huntsman came, a double-barrelled gun upon his back, and hanger at his side. Said the fox to the wolf : "See, yonder comes a man, you must attack him, but I will betake myself to my cavern." *

1. What is the peculiar construction of the expression : *Doch der Seinen —Nicht ?* (§ I). Find and complete two sentences with elipsis of a *verb* in one, and of a *conjunction* in the other (§ I and III), giving rules for the position of those words.

2. *Geschrieben* oder *überliefert* (§ III). Assign a reason for the non-agreement of these words with "Geschichte." Point out the difference between the verbs : *widersprechen* and *wiedersprechen*.

3. Illustrate by examples the construction of the *direct* and *indirect objects :* (*a*) when both are nouns ; (*b*) one a noun, the other a pronoun ; (*c*) both pronouns. Correct : Wir haben gestern von ihm the Nachricht gehört.

4. Which is the relative position in a simple sentence of the adverbs of *time* and *place*, the *adverbial* expression, and the neg. *nicht* ? Ex. The physician had not been here this morning at 10 o'clock. Write an example showing when *nicht* may be placed *before* the object.

5. The English *Perfect* must be expressed by the *Present tense* in German. When ? Translate : How long have you been in this country ? I have been here these two years.

6. *Da, als, wenn, indem.* Write short sentences illustrating the use of these words. Give the equivalents of : A man doing his duty cheerfully and at all times. We speak of England's making war upon Russia. He endangered his life by not attending to directions. The young man spoke of his going abroad, and now he has left without his friends' knowledge.

•7. *Können* admits of various interpretations. Give examples.

8. We are in God's hands everywhere. Translate the sentence so as to illustrate *inversion* of the *adverbial expression.* Is any other part of speech affected by such inversion ?

9. Mention four cases, giving an example for each, which admit of inversion of the *subject* and *verb.*

10. What is the construction peculiar to an *accessory* sentence, whose verb is (*a*) in a *simple* tense ; (*b*) in a *compound* tense ; (*c*) an *infinitive* and *participle ?* Ex. The subjects which you study are important. The knowledge he has acquired has been bought by hard work. The books which had been sent for (kommen lassen) are very much read.

11. Mention the best *lyric* poets of the 17th century, and their influence upon literature. What was the character of *dramatic* poetry and prose during the VI. Period. Who is the author of the first German Art of Poetry, and what are his other claims to distinction ?

12. Give a brief account of the intellectual labor during the VII. Period up to the year 1772.

13. Classify Lessing's works. What is the lesson he teaches in his *Nathan der Weise?* Notice the services he has rendered German literature. Give an account of *Voss.*

14. Which are the two works published by Goethe during the *Sturm-und Drangzeit*, and what epoch does he describe in one of them ? How is his *Faust* to be explained ?

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* An original composition on any subject, of the same length as the fable, may be substituted.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

THURSDAY, APRIL 18.—AFTERNOON, 3 TO 5.30.

B. A. HONOUR EXAMINATIONS IN CLASSICS.

LATIN COMPOSITION.

PROFESSOR J. JOHNSON, M.A.....................*Examiner.*

Translate into Latin :

Anaxargoras of Clazomene was illustrious not only for his wealth, and the nobility of his birth, but also for the greatness of his mind. In order that he might deliver himself up entirely to the study of philosophy, he surrendered his patrimony to his friends and went to Athens, the nurse of literature at that time. There Pericles became his scholar, a man of exalted mind, of uncommon eloquence, and very bountiful to the poor. It happened, however, that being much engaged in public affairs, he seemed to neglect his master Anaxargoras. The old man, perceiving this, went to bed, and, wrapping up his head, determined to starve himself to death. Pericles, having heard of this circumstance, flew to his master and with tears besought him to live, and to preserve to him that wisdom and that light which had been of so much service to him. Anaxagoras, uncovering his head, mildly said, " Pericles, those who have need of a lamb feed it with oil." From that time Pericles paid great attention to Axaxagoras ; and indeed not long afterwards saved his life.

SESSIONAL EXAMINATIONS, 1878.

TUESDAY, APRIL 16.—AFTERNOON, 3 to 4.30.

B. A. HONOUR EXAMINATIONS IN CLASSICS.

LATIN COMPOSITION.

Professor J. Johnson, M.A. ....Examiner.

Translate into Latin:

Anaxagoras of Clazomenæ was illustrious not only for his wealth, and the nobility of his birth, but also for the greatness of his mind. In order that he might devote himself up entirely to the study of philosophy, he surrendered his patrimony to his friends and went to Athens, the nurse of literature at that time. Even Pericles became his scholar, a man of exalted mind, of uncommon eloquence, and very beautiful to the poor. It happened, however, that being much engaged in public affairs, he seemed to neglect his master Anaxagoras. The old man, perceiving this, went to bed, and wrapping up his head, determined to starve himself to death. Pericles, having heard of this circumstance, flew to his master and with tears besought him to live, and to preserve to him that wisdom and that light which had been of so much service to him. Anaxagoras, recovering himself, softly said, "Pericles, those who have need of a lamp feed it with oil." From that time Pericles paid great attention to Anaxagoras; and indeed not long afterwards saved his life.

DALHOUSIE COLLEGE AND UNIVERSITY.

HALIFAX.

SESSIONAL EXAMINATIONS, 1878.

WEDNESDAY, APRIL 10.—3 TO 6 P. M.

B. A. HONOUR EXAMINATIONS IN CLASSICS.

LATIN. { PLAUTUS : MILES GLORIOSUS.
TERENCE : HEAUTONTIMORUMENOS.
VIRGIL : GEORGICS, BOOK I. IV.

PROFESSOR J. JOHNSON, M.A....................*Examiner*.

1. Translate Mil. Glor. vss. 1049—1062,
    Beginning : *Mil.* Dabitur, quantum ipsus preti poscet.
    Ending : *Pal.* Nequeo hercle equidem risu moderarier.

2. Translate the following and explain peculiarities of syntax :
    (*a*) *Mil.* Nam hunc annulum ego ab tui cupienti huic detuli, hic ad te porro.
    (*b*) *Per.* Quid id est quod cruciat ? cedo.
    Pl. Me tibi istuc aetatis homini facinora puerilia
    Obicere, et neque te decora neque tuis virtutibus
    A te expetere.
    (*c*) *Per.* Vigila inquam, expergisce inquam : lucet hoc inquam.

3. Translate these passages and explain unusual forms of words :
    (*a*) *Acr.* Postquam adbibere aures meae tuae loream orationis,
    Tibi dixi, miles quemadmodum potesset deasciari.
    (*b*) *Pal.* Quod id est facinus ? *Sc.* Impudicum. *Pal.* Tute sci soli tibi :
    Mihi ne dixis : scire nolo. *Sc.* Non enim faciam quin scias.
    (*c*) *Phi.* Istuc crucior, a viro me tali abalienarier.
    Nam tu quamvis potis es facere ut adfluat facetiis.

4. Translate Heaut. Act IV., sc. 4, vss. 1—20.
    Beginning : *Ba.* Satis pol proterve me Syri promissa huc induxerunt.
    Ending : *Ba.* Etiamne tecum res hic mihi est *Sy.* Minime ; tuum tibi reddo.

5. Translate and explain throughout :
    ACTA LUDIS MEGALENSIBUS....MODOS FECIT FLACCUS CLAUDII. GRAECA EST MENANDRU. ACTA PRIMUM TIBIIS IMPARIBUS ; DEINDE DUABUS DEXTRIS. ACTA III. EDITA M. JUVENTIO ET T. SEMPRONIO COSS.

6. On what different principles have the difficulties in the scansion of Terence been explained ?

7. Translate Georg. IV. vss. 228–247.

8. Explain the references in the following lines :
    (*a*) Gnosiaqne ardentis decedat stella Coromae.
    (*b*) Et pro purpureo poenas dat Scylla capillo.
    (*c*) Tinnitusque cie et Matris quate cymbala circum.

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SESSIONAL EXAMINATIONS, 1878.

WEDNESDAY, APRIL 17.—9 A. M TO 1 P. M.

B. A. HONOUR EXAMINATIONS IN CLASSICS.

CLASSICAL LITERATURE.—COMPARATIVE PHILOLOGY.

PROFESSOR J. JOHNSON, M.A.....................*Examiner.*

N. B.—Only four questions in each part are to be answered.

A. 1. How is the connection of the Mythical Grecian Minstrels with Thrace explained?

2. What reasons are given for the belief that the poems of Homer were orally transmitted at first?

3. Distinguish the two schools of Lyric poetry, and name the chief authors in each.

4. Give a description of the Theatre at Athens, and of a performance therein.

5. Describe the characteristics of Grecian Comedy at different periods, and name the chief writers of each period.

B. 1. Explain the Saturnian Measure. What specimens of it are extant? What does Horace say about it? What authors successively introduced Grecian Metres into Latin? Quote any reference made by any author to his own share in this work.

2. Give an account of the life and works of any one writer before Plautus.

3. Compare the prologues of Greek plays and those of Plautus and Terence.

4. How are Latin Plays classified? Give examples.

5. Give an account of the Satirists of Rome.

C. 1. Distinguish phonetic and dynamic changes and give examples from Greek.

2. Give various modifications of the root TAR in Latin and Greek.

3. Explain what is meant by *root-determinatives* and *formative suffixes.* Give examples of the different kinds of the latter.

4. Illustrate the modification of aspirated mutes in Greek, Latin and English.

5. What are the laws of Latin accentuation? Why is an older law supposed to have existed?

6. Mention Greek or English words, or both, that are akin to the following, and explain the differences in each case: vivus, celare, viginti, frango, lamentum, lacrima, soror, aurum, gens.

N. B.—Only four questions in each part are to be answered.

A. 1. How is the connection of the Mythical Grecian Heroids with These explained?

2. What reasons are given for the belief that the poems of Homer were orally transmitted at first?

3. Distinguish the two schools of Lyric poetry, and name the chief authors in each.

4. Give a description of the Theatre at Athens, and of a performance therein.

5. Describe the characteristics of Grecian Comedy at different periods, and name the chief writers of each period.

B. 1. Explain the Saturnian Measure. What specimens of it are extant? What does flavor say about it? What authors successively introduced Grecian Metres into Latin? Quote any reference made by any author to his own share in this work.

2. Give an account of the life and works of any one writer before Plautus.

3. Compare the prologues of Greek plays and those of Plautus and Terence.

4. How are Latin Plays classified? Give examples.

5. Give an account of the Satirists of Rome.

C. 1. Distinguish phonetic and dynamic changes and give examples from Greek.

2. Give various modifications of the root TAR in Latin and Greek.

3. Explain what is meant by reduplication and frequentative suffixes. Give examples of the different kinds of the latter.

4. Illustrate the modification of aspirated mutes in Greek, Latin and English.

5. What are the laws of Latin accentuation? Why is an older law supposed to have existed?

6. Translate Greek or English words, or both, that are akin to the following, and explain the difference in each case: vivus, vedena, vigint, frango, frangentem, lacrima, ovot, serum, pans.

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SESSIONAL EXAMINATIONS, 1878.

MONDAY, APRIL 15.—9 A. M. TO 1 P. M.

B. A. HONOUR EXAMINATIONS IN CLASSICS.

LATIN.
{ CICERO : TUSCULAN QUESTIONS, Book I.
HORACE : EPISTLES I. II., ARS POETICA.
JUVENAL : SATIRES VII. VIII. XIV.
TACITUS : GERMANIA, AGRICOLA.

PROFESSOR J. JOHNSON, M.A......................*Examiner.*

1. Translate Tusc. Quest., Book I., Chap. XVII.

2. Give an outline of the arguments which Cicero brings forward to prove the immortality of the soul.

3. Explain the syntactical construction of the sentence ; " Num igitur dubitamus, an, sicut pleraque...."

4. Translate Hor. Epist. I , 19, vss. 23-49.

5. Write notes on some peculiarities ot grammar in the following lines :
    (*a*) Haec titi dictabam post fanum putre Vacunae
           Excepto quod non simul esses cetera laetus.
    (*b*) Fons etiam rivo dare nomen idoneus.
    (*c*) Sed vereor ne cui de te plus quam tibi credas
           Neve putes alium sapiente bonoque beatum.

6.   " Dicat
    Filius Albini : Si de quincunce remota est
    Uncia, quid superat. Poteras dixisse." " Triens." " Eu !
    Rem poteris servare tuam. Redit uncia, quid fit ? "
    " Semis."

Translate these lines. Give the divisions of the *as*, and explain their names.

7. Translate Juv. VII., vss. 98-123.

8. Write explanatory notes on
    (*a*)   " russati pone Lacernae."
    (*b*) " Consedere Duces : Surgis tu pallidus Ajax."
    (*c*) " Figantur virides scalarum gloria palmae."
    (*d*) Occidit miseros crambe repetita magistros.
    (*e*) Hos inter sumtus sestertia Quintiliano
           Ut multum duo sufficuint.

9. Translate Germania, Chap. XLV.

10. How does Tacitus describe the geographical situation of Hibernia ?

11. Write notes on the situation of the following, giving modern names : Mona, Clota, Forojuliensuim colonia, Orcades, Thule, Bodotria.

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SESSIONAL EXAMINATIONS, 1878.

THURSDAY, APRIL 11:—9 A.M. TO 1 P.M.

B. A. HONOUR EXAMINATIONS IN CLASSICS.

GREEK: { THUCYDIDES: BOOK II.
{ PLATO: PHAEDO.
{ DEMOSTHENES: DE CORONA.

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

1. Translate Thucyd. II. chaps. 41 and 84 to φεύγειν δ' ἐς πάτρας καὶ Δύμην τῆς Ἀχαίας.

2. Distinguish the meanings of the following phrases :—

οὐ μὴ ποιήσῃ, οὐ μὴ ποιήσεις ; ὁ οὐ πιστεύων, ὁ μὴ πιστεύων ; φαίνομαι ὤν, φαίνομαι εἶναι ; εἴ τι εἶχον, ἐδίδουν ; εἴ τι εἶχον, ἐδίδουν ἄν ; τοῦτο οὐ ποιήσω, πρὶν ἐλθῇς ; πρὶν ἂν ἐλθῇς, πρὶν ἐλθεῖν ; πῖνε ἕως καθεύδει, ἕως ἂν καθεύδῃ.

3. Translate Phaedo § 44.

4. τὰ μὲν Ἁρμονίας ἡμῖν τῆς Θηβαϊκῆς ἱλεά πως, ὡς ἔοικε, μετρίως γέγονε · τί δὲ δὴ τὰ Κάδμου, ἔφη, ὦ Κέβης, πῶς ἱλασκόμεθα καὶ τίνι λόγῳ ; Explain the meaning of this.

5. πῶς λέγεις ; ἔφη. Οὐδὲν χαλεπόν, ἦ δ' ὅς, ἐννοῆσαι ὁ λέγω· ἀλλ' οἷον εἰ τὸ καταδαρθάνειν μὲν εἴη, τὸ δ' ἀνεγείρεσθαι μὴ ἐνταποδιδοίη γιγνόμενον ἐκ τοῦ καθεύδοντος, οἶσθ' ὅτι τελευτῶν τα πάντ' ἂν λῆρον τὸν Ἐνδυμίωνα ἀποδεί-ξειε καὶ οὐδαμοῦ ἂν φαίνοιτο, διὰ τὸ καὶ τἆλλα πάντα ταὐτὸν ἐκείνῳ πεπον-θέναι, καθεύδειν. Translate and explain this passage.

6. What description of the earth is given by Plato in the Phaedo?

7. Translate De Corona, §§ 192–195, Edit. Teub.:—
Beginning Ἀλλὰ μὴν τὸ μὲν παρεληλυθὸς ἀεὶ παρὰ πᾶσιν ἀφεῖται.
Ending   ταύτην τὴν συμμαχίαν, ἧς σὺ κατηγορεῖς.

8. Ἐπὶ ἄρχοντος Ἡροπύθου, μηνὸς ἐλαφοβολιῶνος ἕκτῃ, φθίνοντος : μηνὸς μουννυχιῶνος ἕνῃ καὶ νέᾳ : Describe the method of denoting the date of any event at Athens, as here mentioned.

9. Ἐπὶ ἱερέως Κλειναγόρου, ἐαρινῆς πυλαίας, ἔδοξε τοῖς πυλαγόραις καὶ τοῖς συνέδροις τῶν Ἀμφικυόνων κ.τ.λ. Give a sketch of the powers of the Amphictyonic Council, including an explanation of this passage.

10. Why are the documents quoted in the *De Corona* supposed to be spurious?

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SESSIONAL EXAMINATIONS, 1878.

THURSDAY, APRIL 12TH:—AFTERNOON, 3 TO 6.

B. A. HONOUR EXAMINATIONS IN CLASSICS.

GREEK:
{ ÆSCHYLUS: SEPTEM CONTRA THEBAS.
SOPHOCLES: ŒDIPUS REX.
HOMER: ILIAD, XVIII, XXIV. }

PROFESSOR J. JOHNSON, M.A.. .....*Examiner.*

1. Translate, Sept. Contra Theb., vss. 650–674 :—

   Begining ET. ὦ θεομανές τε καὶ θεῶν μέγα στύγος,
   Ending   κνημῖδας, αἰχμῆς καὶ πέτρων προβλήματα.

2. (*a*) (Γῆ) ἢ γὰρ νέους ἕρποντας εὐμενεῖ πέδῳ
   ἅπαντ' πανδοκοῦσα παιδείας ὄτλον
   ἐθρέψατ' οἰκιστῆρας ἀσπιδηφόρους
   πιστούς, ὅπως γένοισθε πρὸς χρέος τόδε.

   (*b*) καὶ νύκτα ταύτην ἣν λέγεις ἐπ' ἀσπίδος
   ἄστροισι μαρμαίρουσαν οὐρανοῦ κυρεῖν,
   ταχ' ἂν γένοιτο μάντις ἐννοίᾳ τινί.

   (*c*)   Χο. πέφρικα τὰν ὠλεσίοικον
   θεὸν οὐ θεοῖς ὁμοίαν,
   παναληθῆ κακόμαντιν
   πατρὸς εὐκταίαν Ἐρινὺν
   τελέσαι τάς περιθύμους
   κατάρας βλαψίφρονάς τ' Οἰδιπόδα.

   Translate these passages (the last in two ways) and explain some unusual constructions.

3. Translate Œdip. Rex., vss. 1335–1359 :—

   Beginning ΟΙΔ. ὡς μὲν τάδ' οὐχ ὧδ' ἐστ' ἄριστ' εἰργασμένα,
   Ending   ἐμαυτὸν ἀνθρώποισι ἔνθεν ἢ γεγώς ;

4. (*a*) The indicative mood is employed in a very unusual sense in this passage.

   (*b*) What is remarkable in ἀλλ' ἡ τέκνων δῆτ' ὄψις ἦν ἐφίμερος βλαστοῦσ' ὅπως κ.τ.λ.? Can you quote something similar from Horace.

5. Translate Iliad, XXIV., 265–282.

6. Write the chief parts found of :—

   ἔνθορε, εἴατο, ὦρτο, ἀπηύρα, ἀρηρός, πάθησθα, πᾶσάμην.

7. Many words in Homer that begin with a vowel can be shown by comparison with some in other tongues, to have had originally an initial consonant.