THE

# M^c^GILL

# University Calendar,

AND

# EXAMINATION PAPERS,

## 1863-4.

CORRECTED TO JUNE, 1863.

Montreal:
JOHN LOVELL, ST. NICHOLAS STREET,
MDCCCLXIII.

# BENEFACTORS

OF THE

# McGill University,

## MONTREAL.

**THE HONORABLE JAMES McGILL,** by his last Will and Testament, under date 8th January, 1811, bequeathed the Estate of Burnside, situated near the City of Montreal, and containing forty-seven Acres of Land, with the Manor House and Buildings thereon erected, and also the sum of ten thousand pounds in money, unto "The Royal Institution for the Advancement of Learning," constituted by Act of Parliament in the Forty-First year of the reign of His Majesty, King George the Third, to erect and establish an University, or College, for the purposes of education, and the advancement of learning in the Province of Lower Canada, with a competent number of Professors and Teachers to render such Establishment effectual and beneficial for the purposes intended, requiring that one of the Colleges to be comprised in the said University, should be named and perpetually be known and distinguished by the appellation of "McGill College."

The value of the above mentioned property was estimated at the date of the bequest at ..... £30,000.

At a meeting called by a number of the influential citizens of Montreal, and held at the Merchants' Exchange, 6th December 1856, for the purpose of taking into consideration the financial condition of the University of McGill College.—The following Resolution was adopted:

"That an effort ought to be made for increasing the endowment of McGill College in such a manner as to extend its usefulness, and to place it for the future upon an independent and permanent footing."

Whereupon, in pursuance of the above Resolution, the following donations were enrolled for Special or General objects connected with the University—the Royal Institution granting Scholarships in perpetuity according to the value of the Donations.

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| The Honorable John Molson, Thomas Molson, Esq., William Molson, Esq., for the formation and maintenance of the Chair of English Language and Literature. | £5,000 |
| John Gordon Mackenzie, Esq. | £500. |
| Ira Gould, Esq | 500. |
| John Frothingham, Esq. | 500. |
| John Torrance, Esq | 500. |
| James B. Greenshields, Esq | 300. |
| William Busby Lambe, Esq. | 300. |
| Sir George Simpson, Knight | 250. |
| Henry Thomas, Esq | 250. |
| John Redpath, Esq. | 250. |
| James McDougall, Esq. | 250. |
| James Mitchell, Esq. | 250. |
| James Torrance, Esq. | 250. |
| Honorable James Ferrier | 250. |
| John Smith, Esq | 250. |
| Harrison Stephens, Esq | 250. |
| Henry Chapman, Esq. Mr. Chapman also founded a Gold Medal to be given annually for the greatest general proficiency in the graduating class in Arts. | 150. |
| John James Day, Esq | 150. |
| Honorable Peter McGill | 150. |
| Thomas Brown Anderson, Esq. | 150. |
| Peter Redpath, Esq | 150. |
| Thomas M. Taylor, Esq | 150. |
| Joseph Mackay, Esq | 150. |
| Augustus N. Heward, Esq. | 150. |
| Donald Lorn McDougall, Esq | 150. |
| Honorable John Rose. | 150. |
| Charles Alexander, Esq. | 150. |
| Moses E. David, Esq | 150. |
| William Carter, Esq | 150. |
| Thomas Paton, Esq. | 150. |
| William Workman, Esq. | 150. |
| Hon. Alexander T. Galt | 150. |
| Luther H. Holton, Esq. | 150. |
| Henry Lyman, Esq | 150. |
| David Torrance, Esq | 150. |
| Edwin Atwater, Esq | 150. |
| Theodore Hart, Esq. | 150. |
| William Forsyth Grant, Esq | 150. |
| Robert Campbell, Esq. | 150. |
| Alfred Savage, Esq | 150. |
| James Ferrier, Esq., Jr. | 150. |
| William Stephen, Esq. | 150. |
| N. S. Whitney, Esq. | 150. |
| William Dow, Esq | 150. |
| William Watson, Esq. | 150. |
| Edward Major, Esq. | 150. |
| Honorable Charles Dewey Day | 50. |
| John R. Esdaile, Esq. | 50. |

"The William Molson Hall," being the West wing of the McGill College Buildings, has been erected, through the munificent donation of the founder whose name it bears, together with the Museum Rooms and Chemical Laboratory and Class Rooms.

# CALENDAR

OF THE

# McGill University,

## MONTREAL.

Founded by Bequest of the Hon. James McGill, in 1811; Erected into a University by Royal Charter in 1821; and Re-organised by an Amended Charter in 1852.

## SESSION OF 1863-4.

MONTREAL:

PRINTED FOR THE UNIVERSITY BY J. C. BECKET, GREAT ST. JAMES STREET.

1863.

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1863/64

# McGILL UNIVERSITY, MONTREAL.

## VISITOR:

His Excellency The Right Hon. Viscount Monck, Governor General of British North America, &c.

## CORPORATION.

### GOVERNORS:

*Being the Members of The Board of Royal Institution for the Advancement of Learning.*

The Hon. CHARLES DEWEY DAY, LL. D., President.
The Hon. JAMES FERRIER, M.L.C.
THOMAS BROWN ANDERSON, Esq.
DAVID DAVIDSON, Esq.
BENJAMIN HOLMES, Esq.
ANDREW ROBERTSON, M.A.
CHRISTOPHER DUNKIN, M.A., M.P.P.
WILLIAM MOLSON, Esq.
ALEXANDER MORRIS, M.A., D.C.L., M.P.P.
The HON. JOHN ROSE, M.P.P.

### PRINCIPAL:

JOHN WILLIAM DAWSON, LL.D., F.R.S., F.G.S.

### FELLOWS:

REV. CANON LEACH, D.C.L., LL.D., Vice-Principal and Dean of the Faculty of Arts.
HENRY ASPINWALL HOWE, M.A., Rector of the High School.
J. J. C. ABBOTT, B.C.L., Dean of the Faculty of Law.
BROWN CHAMBERLIN, M.A., B.C.L.
WALTER JONES, M.D.
W. B. LAMBE, B.C.L.
SIR WILLIAN E. LOGAN. LL.D., F.R.S., F.G.S.
GEORGE W. CAMPBELL, M.A., M.D., Dean of the Faculty of Medicine.
JOHN H. GRAHAM, M.A., Principal of St Francis College.

## SECRETARY, REGISTRAR, AND BURSAR,

WILLIAM CRAIG BAYNES, B.A. Office, Burnside Hall. Office Hours, 10 to 2. Residence, Centre Building M'Gill College.

1863.
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## ACADEMICAL YEAR.—1863–64.

1863.

September 1—Autumn Term of *High School* commences.
" 1—Session of *Normal* and *Model Schools* commences.
" 8—Matriculation Examination in *Classics*.
" 8—Supplemental Examination in *Classics*.
" 9—Matriculation Examination in *Mathematics*.
" 9—Matriculation and Supplemental Examinations in *English*.
" 10—Competitive Examinations for the *Governor General's Scholarships*.
" 11—Lectures in *Arts* commence.
October 6—*Founder's Birthday*. No Lectures in Arts.
" 10—*The William Molson Hall opened*, 1862.
" 28—Quarterly Meeting of Corporation.
November 4—Session of *Faculty of Medicine* commences.
" 4—Session of *Faculty of Law* commences.
" 17—Winter Term of High School commences.
" 27—Annual University Lecture.
December 9—Lectures in *Arts* terminate for the *Christmas Examinations*.
" 14—Examinations in *Mathematics* and *Natural Philosophy*.
" 15—Examinations in *Natural Science* and *Chemistry*.
" 17—Examination in *Greek*.
" 18—Examination in *Latin*.
" 19—Normal and Model Schools close for Christmas vacation.
" 21—Examinations in *English Literature*, *Logic*, *Mental* and *Moral Philosophy*.
" 22—Examinations in *French* and *German*.
" 23—*Christmas vacation begins*.

1864.

January 5—Lectures in *Arts*, *Medicine* and *Law* re-commence.
" 27—Quarterly Meeting of Corporation.
February 2—Spring Term of High School commences.
" 10—No Lectures.
March 3—Sessional Examination in *Botany* (second year).
" 4—Sessional Examinations in *French* and *German* (second year).
" 25—*Easter vacation* begins.
" 30—*Easter vacation* ends.
April 1—Lectures in *Arts* terminate.
" 7—B.A. *Honour* Examinations in *Mathematics* and *Natural Philosophy*.
" 8—Theses for the Degree of M. A. in Course to be sent in to the Dean of the Faculty.

April 7—Examination in *Hebrew*.
" 11—12—*Ordinary* B. A., and Sessional Examinations in *Mathematics* and *Natural Philosophy*.
" 14—15—*Ordinary* B. A. and Sessional Examinations in *Classics* and *History*.
" 18—Summer Term of High School commences.
" 18—Examinations in *French* and *German*.
" 19—B. A. *Honour* Examinations in *Mathematics* and *Natural Philosophy*.
" 19—B. A. *Honour* Examinations in *Classics*.
" 19—B. A. *Honour* Examinations in *Logic, Mental* and *Moral Philosophy*, and *English Literature*.
" 19—B. A. *Honour* Examinations in *Natural Science*.
" 20—*Ordinary* B. A. and Sessional Examinations in *English Literature, Logic, Mental* and *Moral Philosophy*.
" 21—*Ordinary* B. A. and Sessional Examinations in *Natural Science* and *Chemistry*.
" 22—B. A. *Honour* Examinations in *Classics*.
" 25—B. A. *Honour* Examinations in *Mathematics* and *Natural Philosophy*.
" 25—B. A., and 3rd year *Honour* Examinations in *Classics*.
" 25—1st, 2nd, and 3rd year *Honour* Examinations in *Mathematics* and *Natural Philosophy*.
" 27—Quarterly Meeting of Corporation.
" 28—B. A. and other *Honour* Examinations in *Mathematics* and *Natural Philosophy*.
" 28—B. A. and 3rd year *Honour* Examinations in *Classics*.
May 1—Classes in Arts, Medicine and Law, close for *Summer vacation*.
" 4—Annual Meeting of Convocation.
July 1—Summer Term of High School ends, and classes close for *Summer vacation*.
" 1—Normal and Model Schools close for *Summer vacation*.
" 27—Quarterly Meeting of Corporation.

# OFFICERS OF INSTRUCTION.

ARRANGED IN THE ORDER OF STATUTORY PRECEDENCE.

| | *Residence.* |
|---|---|
| JOHN WILLIAM DAWSON, LL.D., F.R.S., F.G.S.—Principal, and Professor of Natural History. | East Wing, M'Gill College. |
| REV. CANON LEACH, D.C.L.,LL.D.—Vice-Principal, Dean of the Faculty of Arts, Professor of Logic and Moral Philosophy, and Molson Professor of English Literature. | 7, University Avenue. |
| HENRY ASPINWALL HOWE, M. A.—Rector of the High School, and Emeritus Professor of Mathematics and Natural Philosophy. | 1 Prince of Wales Terrace. |
| J. J. C. ABBOTT. B.C.L.—Dean of the Faculty of Law, and Professor of Commercial Law. | 505, St. Catherine Street. |
| GEORGE W. CAMPBELL, M.A., M D.—Dean of the Faculty of Medicine, and Professor of Surgery. | 63, Great St. James Street. |
| ARCHIBALD HALL, M.D.—Professor of Midwifery and Diseases of Women and Children. | 1 Radegonde Street. |
| WILLIAM FRASER, M.D.—Professor of the Institutes of Medicine. | 12 Little St James Street. |
| WILLIAM SUTHERLAND, M.D.—Professor of Chemistry. | 31, Great St. James Street. |
| WILLIAM E. SCOTT, M.D.—Professor of Anatomy. | —9, Bonaventure St. |
| WILLIAM WRIGHT, M.D.—Professor of Materia Medica and Pharmacy. | 175 Craig Street. |
| ROBERT P. HOWARD, M.D.—Professor of the Theory and Practice of Medicine. | 11Bonaventure St. |
| REV. A. DESOLA, LL.D.—Professor of Hebrew and Oriental Literature. | 1, Pres de Ville Place. |
| HON. WILLIAM BADGLEY, D.C.L.—Professor of Public and Criminal Law | McGill College Avenue. |
| FREDERICK W. TO[illegible], M.A., B.C.L.—Professor of Civil Law. | 13, Bellevue Terrace. |
| P. R. LAFRENAYE, B.C.L.—Professor of Jurisprudence and Legal Bibliography. | Upper St. Urbain Street. |
| R. G. LAFLAMME, B.C.L.—Professor of Customary Law, and Law of Real Estate. | 1, Cornwall Terrace. |
| CHARLES SMALLWOOD, M.D., LL.D.—Professor of Meteorology. | 20, Beaver Hall Place. |
| CHARLES F. A. MARKGRAF.—Professor of German Language and Literature. | 9 Dorchester St. |
| D. C. M'CALLUM, M.D.—Professor of Clinical Medicine, and Medical Jurisprudence. | 152, Craig Street, |
| ALEXANDER JOHNSON, LL.D.—Professor of Mathematics and Natural Philosophy. | 4, Place St. Sophie M'Gill College Avenue. |
| REV. GEORGE CORNISH, M. A.—Professor of Classical Literature. | East Wing, M'Gill College. |

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| JONATHAN BARBER, M.R.C.S.L.—Professor of Oratory. | |
| PIERRE J. DAREY, M.A.—Professor of French Language and Literature. | 25, Belmont St. |
| ROBERT CRAIK, M.D.—Professor of Clinical Surgery. | — 123, Craig Street. |
| T. STERRY HUNT, Sc.D., M.A., F.R.S., &c.—Professor of Applied Chemistry and Mineralogy. | 58, St. Gabriel St. |
| EDWARD CARTER, Q.C.—Associate Professor of Criminal Law. | 5, Cadieux Street. |
| T. A. GIBSON, M.A.—Classical and English Master of High School. | 172, Sherbrooke Street. |
| DAVID RODGER, M. A.—Mathematical Master of High School. | 407, St. Catherine Street. |
| HORACE NELSON, M.D.—Demonstrator of Anatomy and Curator of Medical Museum. | 27, Little Saint James St. |
| JOHN JOHNSON, B.A.—Classical and English Master of High School. | 4, Place St. Sophie. |
| JAMES KEMP.—Classical and English Master of High School. | —3, Cochrane St. |
| JOHN ANDREW.—Elocution Master of High School. | St. Catherine St. cor. St. Simon. |

## DIRECTORY TO BUILDINGS OF THE UNIVERSITY.

1. McGILL COLLEGE—containing the Class Rooms of the Faculty of Arts, with its Museum and Library; and the residences of the Principal, resident Professor, and Secretary:—*College grounds, North side of Sherbrooke Street, head of McGill College Avenue.*

2. BURNSIDE HALL—containing the Class Rooms of the Faculty of Law, and of the High School Department, and the office of the Secretary:—*Corner of Dorchester and University Streets.*

3. BUILDING OF THE MEDICAL FACULTY—containing its Class Rooms, Museum, and Library:—15 *Coté Street.*

4. THE McGILL NORMAL SCHOOL:—*Belmont Street, opposite the foot of University Street.*

5. THE COLLEGE OBSERVATORY:—*At the West end of the College Buildings.*

6. THE UNIVERSITY GYMNASIUM:—*On University Street, near Burnside Hall.*

# General Announcement.

The eleventh Session of this University, under its amended charter, will commence in the Autumn of 1863.

The courses of study in the University, and the distinctions which it offers, may be summed up as follows :—

## I. *McGill College.*

THE FACULTY OF ARTS.—The complete course of study in Arts extends over four Sessions, of eight months each ; and includes Classics and Mathematics, with English Literature, Logic, Mental and Moral Science, Natural Science, and Modern Languages, leading to the degrees of B. A. and M.A. There are also Honour Courses, Special and Partial Courses, and a Course of practical Chemistry ; and facilities are afforded for the study of Agricultural Chemistry, for the practice of Meteorological observations, and for the study of Hebrew and Oriental Literature.

THE FACULTY OF MEDICINE.—The complete course of study in Medicine extends over four Sessions, of six months each, and leads to the degree of M. D.

THE FACULTY OF LAW.—The complete course in Law extends over three Sessions, of six months each, and leads to the degrees of B. C. L. and D. C. L.

## II. *Affiliated Schools.*

THE HIGH SCHOOL DEPARTMENT, offers a thorough English education, with the French and German languages, and the Classical and Mathematical training necessary for entering the College course.

THE MCGILL NORMAL SCHOOL provides the training requisite for Teachers of Elementary and Model Schools and Academies. Teachers trained in this School are entitled to Provincial diplomas.

THE MODEL SCHOOLS OF THE MCGILL NORMAL SCHOOL are English Schools, divided into a Boys' Department, Girls'

Department, and Primary School. Teachers in training in the Normal School are employed in these Schools, under the supervision of the Head Master and Mistress.

Details of all the above courses of study, with the fees and the dates of commencement of the classes, will be found in the following pages under the proper heads.

The regulations of the University have been framed on the most liberal principles, with the view of affording to all classes of persons the greatest possible facilities for the attainment of mental culture and professional training. In its religious character the University is Protestant, but not denominational; and, while all possible attention will be given to the character and conduct of students, no interference with their peculiar religious views will be sanctioned.

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St. Francis College, Richmond, is an affiliated College of the University; and its matriculated students may prosecute any part of their course of study in the Faculty of Arts, and may be admitted to examination for the degree of B. A.

# Faculty of Arts.

The Principal (ex-officio.)

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|---|---|
| Professors—Leach. | Professors—Johnson. |
| Howe. | Cornish. |
| De Sola. | Barber. |
| Dawson. | Darey. |
| Markgraf. | Hunt. |
| Smallwood. | |

Dean of the Faculty—Rev. Canon Leach, D.C.L., LL.D.

Librarian—Professor Markgraf.

The session of this Faculty extends from Sept. 6th to May 1st.—The classes of Students recognised under the following regulations are;—(1) *Undergraduates*, matriculated for the whole course of study for the degree of B.A., extending over four years, except in the cases specified in Section 1st. (2) *Students in Special Courses*, matriculated and studying for the diploma in such special courses. (3) *Partial Students*, matriculated and taking two or more courses of lectures. (4) *Occasional Students*, not matriculated, and taking one course of lectures.

Fee for each Session, for Undergraduates and Special Students, $20. Gymnasium, $2. Library, $2. Practical Chemistry, including glass and re-agents, $26. Fee for Partial and Occasional Students, $5 for each course of lectures. Matriculation $4, required only in the year of entrance. Fee for Graduation $5, to be paid before the examination.

Students in Arts are permitted to board in the city; but arrangements have been made for receiving Students who may desire to reside as boarders in the College, and for placing such Students under the immediate superintendence of Rev. Prof. Cornish, to whom application may be made; rate of board $16 per month.

## EXTRACTS FROM THE REGULATIONS.

### § 1. MATRICULATION AND ADMISSION.

Candidates for Matriculation as Undergraduates are required to present themselves to the Dean of the Faculty, on or before the 6th

of September, for examination; they may however enter after the commencement of the Session, if, on examination, found qualified to join the classes.

The subjects of examination for entrance into the first year are Classics, Mathematics and English.

*In Classics.*—Latin Grammar, Greek Grammar, and one easy Latin and one easy Greek author. The authors recommended are Cæsar, Sallust, Virgil, (Æneid, B. I); Xenophon, (Anabasis, B. I)., Homer, (Iliad B. I).

*In Mathematics.*—Arithmetic, Algebra to Quadratic Equations; Euclid's Elements, Books I, II, III.

*In English.*—Writing from dictation.

Candidates may be admitted to the standing of students of the second year, provided that they be found qualified on examination. Students of other Universities desirous of continuing their studies in this Faculty, may be admitted, on the production of certificates, to a like standing in this University, after examination by the Faculty.

Candidates for Matriculation as students in any Special Course, or for partial Courses of Study, will be examined in the subjects necessary thereto, as may from time to time be determined by the Faculty.

Persons desirous of entering as partial or occasional students, must apply to the Dean for entry in his Register, and must procure from the Secretary tickets for the lectures they may desire to attend.

Every Student is expected to present, on his entrance, a written intimation from his parent, or guardian, of the name of the minister of religion, under whose care and instruction it is desired that the Student shall be placed, and who shall thereupon be invited to place himself in communication with the Faculty on the subject. Failing any intimation from the parent or guardian, the Faculty will endeavour to establish such relations.

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## § 2. SCHOLARSHIPS AND BURSARIES.

Sixteen Scholarships have been placed by the Governors at the disposal of His Excellency the Governor General. These entitle the holders to exemption from tuition-fees. Application must be addressed to His Excellency, through the Provincial Secretary. Candidates for such Scholarships must pass the usual Matriculation

Examination. By command of His Excellency, four of these Scholarships will be offered for competition in the Matriculation Examinations of the ensuing session.

Eight other Scholarships will be granted by the Governors from time to time to the most successful Students who may present themselves as candidates.

One or more Normal School Bursaries in the Faculty of Arts will be offered for competition to students of the third or fourth years.—They entitle the holder to an annual sum of $100, for a term not exceeding two years, under condition of practising the art of teaching in the High School Department, and of teaching for three years in some public School or Academy in Lower Canada, after taking the degree of B.A. and a diploma as a teacher of an Academy.

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## § 3. COURSES OF STUDY.

### I. FOR THE DEGREE OF B. A.

Undergraduates are arranged, according to their standing, as Students of the First, Second, Third and Fourth Years; and as such must attend all the courses of lectures appointed for their year, and those only, except by special permission of the Faculty.

*First Year*—Classics, English Literature, Mathematics, History, Elementary Chemistry.

*Second Year*—Classics, French or German, Logic, Mathematics, Botany.

*Third Year*—Classics, French or German, Rhetoric, Mathematical and Experimental Physics and Astronomy, Zoology.

*Fourth Year*—Classics, Mental and Moral Philosophy, Mathematical and Experimental Physics and Astronomy, Mineralogy and Geology.

Undergraduates are required to study either French or German for two years, (viz., in the second and third years), taking the same language in both years. The Sessional Examination in these languages at the end of the third year counts for the B. A. Examination. At the beginning of the second year the student must state which language he selects as obligatory. No change can afterwards be made without the special permission of the Faculty. In addition to the obligatory there are other Lectures, attendance on which is optional, intended for the benefit of those who may desire a preparatory course or to acquire a more complete knowledge of these languages.

The Lectures in Modern Languages will be so arranged that Students competent and desirous to take in the same year the ordinary Lectures in French, and the advanced in German, or *vice versa*, may do so.

Students who intend to join any Theological school, on giving written notice to that effect at the beginning of the second year, may take Hebrew instead of French or German.

II. FOR THE DIPLOMA OF GRADUATE IN CIVIL ENGINEERING.

*First Year*—Drawing, Mensuration, Surveying, Mathematics of the second year and Experimental Physics, with the ordinary Mathematics and Physics of the third year, English Literature, French or German, Chemistry.

*Second Year*—Drawing, Engineering, Higher Mathematics and Physics, Geology and Mineralogy, French or German.

For details of the above courses of study see under the proper headings in subsequent pages.

## § 4. EXAMINATIONS.

### *College Examinations.*

There are two examinations in each year; one at Christmas, and the other at the end of the Session. In both of these, Students will be arranged according to their answering, as 1st Class, 2nd Class, and 3rd Class.

Students who fail in the Christmas examinations may be allowed a supplemental examination, on written application to the Faculty, stating satisfactory reasons.

Failure in two or more subjects at the sessional examinations will involve the loss of the session. The Faculty may permit the student to recover his standing by passing a supplemental examination at the beginning of the ensuing session. But such permission will not be granted except in cases of sickness, or for other special reasons. For the purposes of this regulation, Classics, and Mathematics with Physics, will each be regarded as two subjects.

### *University Examinations.*

I. FOR THE DEGREE OF B. A.

There are three University Examinations; that for Matriculation, an Intermediate at the end of the second year, and a Final at the end of the fourth year.

The subjects of the Matriculation Examination are stated in Section 1.

In the Intermediate Examination the subjects are Classics and Pure Mathematics with Logic and the English Language.

In the Final Examination the subjects are Classics and Mixed Mathematics with any two of the following: (1) Mental and Moral Philosophy, (2) Natural Science, (3) Experimental Physics, (4) One Modern Language and Literature (or Hebrew,) with History.

### II. FOR THE DEGREE OF M. A.

Bachelors of Arts, of at least three years standing, are entitled to the degree of Master of Arts, after such examination and exercises as may be prescribed by the Corporation. The exercise at present appointed is the preparation of a Thesis on any literary, scientific, or professional subject, to be selected by the candidate, and approved by the Faculty.

### III. FOR THE DIPLOMA IN CIVIL ENGINEERING.

Candidates for the degree of Graduate in Civil Engineering will be examined in the subjects proper to the course of Civil Engineering, in the same manner as the candidates for the degree of B. A.

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## § 5. PRIVILEGES OF PROFESSIONAL AND HONOUR STUDENTS.

### I. LAW AND MEDICAL STUDENTS.

Students of the third or fourth years, matriculated in the Faculties of Law or Medicine of this University, will be entitled to the following exemptions.

In the Third Year, they may omit any two of the following subjects: Zoology, Experimental Physics, Rhetoric, and Modern Languages.

In the Fourth Year, they may omit Greek and also Geology or Experimental Physics.

In the ordinary B. A. examinations, they may, in Classics, pass in Latin alone; and, in Mixed Mathematics, in Mechanics and Hydrostatics alone.

To be allowed these privileges in either year, they must produce certificates of attendance on a full course of Professional Lectures in that year.

### II. HONOUR STUDENTS.

Candidates for B.A. Honours may omit at the Ordinary Examination for the Degree, two of the four subjects appointed. For the two

subjects thus omitted, the Sessional examinations at the end of the third year will be reckoned as degree examinations.

No Student shall be entitled to the above privileges, unless his attendance on Lectures and progress in the subject in which he is a candidate for Honours shall be satisfactory to the Professor, and unless he shall have obtained a certificate of creditable answering in the Honour examinations.

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## § 6. PRIZES AND HONOURS.

At the Sessional examinations the Faculty will award the following distinctions :—

1. Prizes and Certificates of Merit to those Matriculated Students who may have distinguished themselves in the studies of a particular class, and who have attended all the other classes proper to their year.

2. General Honours, of first or second rank, to those Matriculated Students who show a high degree of proficiency in all the studies proper to their year.

3. Special Honours, of first or second rank, to those Matriculated Students who have successfully passed the Honour examinations in any class in which studies for Honours have been provided,and have also passed creditably the Ordinary examinations in all the subjects proper to their year.

4. The Chapman Gold Medal to the Student who, being among those who have taken Honours of the first rank in the subjects appointed for the year, shall be the first in the Ordinary examination for the degree of B. A.

5. The Prince of Wales Gold Medal to the student who shall have passed creditably the examinations for the degree of B.A. and taken the highest Honours of the first rank in a subject to be from year to year determined by the Faculty.

[In the Session of 1863–64, the subjects appointed for the competition for the Medals, are : (1) Classics, and (2) Natural Science, including Geology and Palæontology, with two of the following, viz : Botany, Zoology, Mineralogy, and Practical Chemistry.]

Students who pass the Sessional or Degree examination, will be arranged at the close of the session according to their answering, as 1st class, 2nd class, or 3rd class : and in this, as well as in the examinations for Honours, those who are equal will be bracketed together.

The names of those who have taken Honours or Prizes will be published in the order of their merit; and with mention, in the case of students of the first and second years, of the schools in which their preliminary education has been received.

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## § 7. ATTENDANCE AND CONDUCT.

All Students shall be subject to the following regulations for attendance and conduct:—

1. Attendance upon all the Classes of the Faculty shall be imperative equally, except upon those announced by the Faculty as optional.

2. A Class-book shall be kept by each Professor and Lecturer in which the presence or absence of Students shall be carefully noted; and the said Class-book shall be submitted to the Faculty at all their ordinary meetings during the Session.

3. Professors shall note the attendance immediately on the commencement of their Lectures, and shall omit the names of students entering thereafter, unless satisfactory reasons are assigned. Absence or tardiness, without sufficient excuse, or inattention or disorder in the Class-room, if persisted in after admonition by the Professor, shall be reported to the Dean of Faculty, who may reprimand the student, report to his parents or guardians, or refer to the Faculty, as he may think proper.

4. While in the College, or going to or from it, students are expected to conduct themselves in the same orderly manner as in the class-rooms. Any Professor observing improper conduct in the class-room, or elsewhere in the building, may admonish the student, and if necessary report him to the Dean.

5. Every student is required to attend regularly the religious services of the denomination to which he belongs, and to maintain without, as well as within the walls of the College, a good moral character.

6. When students are brought before the Faculty under the above rules, the Faculty may reprimand, report to parents or guardians, disqualify from competing for prizes and honours, suspend from classes, or report to the Corporation for expulsion.

7. Injuries to the furniture or building will be repaired at the ex-

pense of those by whom they have been caused, in addition to such other penalty as the Faculty may see fit to inflict.

8. The proportion of times of absence, from necessity or duty, that shall disqualify for the keeping of a Session, shall in each case be determined by the Faculty.

9. All cases of discipline involving the interests of more than one Faculty, or of the University in general, shall be immediately reported to the Principal, or in his absence, to the Vice-Principal.

## § 8. LIBRARY AND MUSEUM.

1. Students may receive books from the Library, on depositing the sum of Four Dollars with the Librarian and signing a receipt for the books received.

2. Students may receive only two volumes at one time, and must return them within two weeks, on penalty of a fine of 1s. for each additional week.

3. Any volume or volumes lost or damaged by a student shall be paid for by him at such rate as the Faculty may direct, with reference to the value of the book and of the set to which it may belong.

4. Students may have the use of books in the Reading Room, at such hours and on such conditions as may from time to time be determined by the Faculty.

5. Professors and Lecturers may receive from the Librarian any books required by them for their duties in the College, not exceeding ten volumes at any one time. Books so borrowed must be returned at or before the close of each Session.

6. Books of reference and works containing valuable illustrations shall not be removed from the Library.

7. Persons not connected with the College, may consult books in the Library on obtaining an order to that effect from any of the Governors or Professors; and Donors of books or money to the amount of Fifty Dollars, may at any time consult books on application to the Librarian.

8. The times and conditions of study in the Museum will be arranged by the Professor of Natural History.

# COURSES OF LECTURES.

## ENGLISH LITERATURE;

### MOLSON PROFESSORSHIP.

Professor, Rev. Canon Leach, D.C.L., LL.D.

*First Year.*—Affinity of Languages—History of the Origin and Successive Improvements of the English Language—Its Constituent Elements. Text books—Angus' Handbook; Klipstein's Anglo-Saxon Grammar.

*Second Year.*—History of English Literature and Criticism of Literary Works—Early English Literature before the time of Queen Elizabeth—English Literature in the age of Spenser, Shakespeare, Milton &c.,—in the age of the Restoration and Revolution,—in the Eighteenth and Nineteenth Centuries—Text-book—Spaulding's History of English Literature.

The Lectures on the above subjects will be constantly accompanied with exercises in the practice of composition.

*Third Year.*—Exercises in the English Language, written and Oral—Eloqence, its History, Uses, Kinds—Processes of Rhetorical Argumentation and Persuasion—Classification and Exposition of Rhetorical Figures—Style and its Laws—Different species of composition and the rules applicable. Text-book—Whately's Rhetoric and Marsh's Hand-book.

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## LOGIC, MENTAL AND MORAL PHILOSOPHY.

Professor, Rev. Canon Leach, D.C.L., L.L.D.

*Logic,* (2nd Year's Students—Second term of the Session.) History of Logic; its sphere and its advantages as a Practical Science—Origin and Functions of Language—Import and Classification of Names and Propositions—Mental Operations involved in the process of Reasoning,—Doctrine of Syllogism—System of Notation, &c. Application of Logic, in dealing with Fallacies, in Division and Definition, in Induction, &c. Text-book—Thompson's Outlines of the Laws of Thought, Whately's Chapters on Fallacies.

*Mental Philosophy,* (4th Year's Students)—Mental Phenomena—Different Classifications of Mental Phenomena—Unity of the Human Mind—Volition—Consciousness—Sense and Sensation—Perception—Memory and Imagination—Understanding—Reason. Text-book—Mansel's Metaphysics (Psychology.)

*Moral Philosophy,*—Philosophy—History of Philosophy, Oriental, Greek, Modern—Moral Philosophy—Moral Systems, Systematic Morality, with Polity and International Law. Text-books—Whewell's Elements of Morality, Schwegler's History of Philosophy.

### *Honour Course.*

*Logic,*—(Second Year.) Hamilton's Lectures on Logic, except the Notes, &c.
Mill's Logic, Books I and III.
Bacon's Novum Organon.
Spaulding's Logic.
Trendelenburg's Elementa Logices Aristotelicæ.

### *B. A. Honour Course.*

Butler's Sermons on Human Nature.
Stewart on the Active and Moral Powers.
Hamilton's Lectures on Metaphysics.
Descartes' on Method.
Reid's Philosophy.
Craik's English Literature.

## CLASSICAL LITERATURE AND HISTORY.

Professor, Rev. G. Cornish, M. A.

### GREEK.

*First Year.*—XENOPHON.—ANABASIS, BOOK I.
HOMER.—ILIAD, BOOKS VI. & VII.
*Greek Prose Composition.*

*Second Year.*—HERODOTUS, BOOK I.
EURIPIDES.—HECUBA.
*Greek Prose Composition.*

*Third Year.*—DEMOSTHENES.—DE CORONA.
SOPHOCLES.—PHILOCTETES.
*Greek Prose Composition.*

*Fourth Year.*—THUCYDIDES.—BOOK II.

### LATIN.

*First Year.*—CICERO.—ORATIONS AGAINST CATILINE.
VIRGIL.—ÆNEID, BOOK VI. AND THE ECLOGUES.
*Latin Prose Composition.*

*Second Year.*—HORACE.—THE EPISTLES AND ARS POETICA.
TACITUS.—THE GERMANIA AND AGRICOLA.
*Latin Prose Composition.*

*Third Year.*—JUVENAL.—SATIRES I., III., VIII. & X.
TERENCE.—HEAUTONTIMOROUMENOS.
*Latin Prose Composition.*

*Fourth Year.*—TACITUS.—ANNALS, BOOK I.
PERSIUS.—SATIRES II., V. & VI.
*Latin Prose Composition.*

### *Honour Course.*

*Third Year, (Monday and Friday)* 10 *to* 11.

I. GREEK.—SOPHOCLES.—ANTIGONE.
EURIPIDES.—ALCESTIS.
PLATO.—CRITO.
ÆSCHINES.—ORAT. CONTRA CTESIPHONTEM.

II. LATIN.—LIVY.—LIB. XXI.
CICERO.—PRO MURENA.
CICERO.—DE SENECTUTE.
TERENCE.—ANDRIA.

III.—*Composition in Greek and Latin Prose.*

*B.A. Honours in Classics, being the Honour Course for Students of the Fourth Year.*

Candidates for B. A. Honours in Classics will be examined in the following subjects :—

I. GREEK.—ÆSCHYLUS.—SEVEN AGAINST THEBES ; PROMETHEUS VINCTUS.
ARISTOPHANES.—THE FROGS ; THE KNIGHTS.
ARISTOTLE.—RHETORIC, BOOK I.
THUCYDIDES.—BOOK VII.
PINDAR.—OLYMPIC ODES.
HOMER.—ODYSSEY, BOOKS I. II. & III.
HESIOD —WORKS AND DAYS.

II. LATIN.—PLAUTUS.—TRINUMMUS ; MENÆCHMI.
TERENCE.—ADELPHI.
CICERO.—PRO LEGE MANILIA ; PRO ARCHIA.
TACITUS.—HISTORIES, BOOK I.
LUCRETIUS.—BOOK I.
VIRGIL.—GEORGICS, BOOKS I. & II.

III. COMPOSITION.—Composition in Greek and Latin Prose. Essay in English on some subject connected with the Course.

IV. GENERAL PAPER.—Questions in Grammar, Antiquities, History and Geography.

In the work of the Class the attention of the Student will be directed to the Collateral subjects of History, Antiquities and Geogr..phy ; also to the Grammatical structure anda ffinities of the Greek and Latin Languages ; and to Prosody and Accentuation.

Candidates for Honours in Classics will be examined in all the subjects of each year respectively.

The examination for Honours of the Third Year will extend over two days, in the morning from 9 to 12, and in the afternoon, from 3 to 6.

The examination for B. A. Honours will extend over four days, in the morning from 9 to 12, and in the afternoon from 3 to 6.

Classical subjects for B. A. Examination, 1864.

I. GREEK.—THUCYDIDES.—BOOK II. SOPHOCLES.—ANTIGONE.

II. LATIN.—PERSIUS.—SATT. II., V. & VI. TACITUS.—ANNALS, BOOK I.

III.—Composition in Latin Prose.

IV.—General Paper in Grammar and History.

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## FRENCH LANGUAGE AND LITERATURE.

Professor, Pierre J. Darey, M. A.

*First Year.—For Students entirely ignorant of French* : Student's Companion to the study of French ; CHAPSAL, Littérature Française ; *For Students having already a knowledge of the French Language* ; MOLIÈRE, L'Avare ; POITEVIN, Grammaire Française. Gems from the Spectator (to translate from English into French.) Dictation, Parsing.

*Second Year.—Elementary Course* ; Student's Companion to the study of French ; CHAPSAL, Littérature Française ; Dictation. *Advanced Course :* MOLIÈRE, Le Misanthrope ; POITEVIN, Grammaire Française ; Gems from the Spectator ; Dictation, Parsing, Composition.

*Third Year.—Elementary Course* : MOLIÈRE, Le Bourgeois Gentilhomme ; RACINE, Iphigénie ; Dictation, Parsing, Composition. *Advanced Course :* POITEVIN, Grammaire Française ; RACINE, Andromaque and Athalie ; SHAKESPEARE, to translate from English into French. The Merchant of Venice. Lectures

upon the French Literature of the 16th, 17th and 18th centuries. Text-book, GÉRUZEZ Cours de Littérature Française.

*Fourth Year.*—CORNEILLE, Horace, Cinna, RACINE, Les Plaideurs. Lectures upon the Literature of the 19th Century

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## GERMAN LANGUAGE AND LITERATURE.

Professor, C. F. A. Markgraf, Esq.

*First Year.*—A preparatory Course for Students altogether ignorant of the Language.

*Second and Third Years.*—In the Elementary Course the text-books will be Ollendorff's Grammar by Adler, and Adler's Progressive German Reader, with Sections 1st and 2nd for the second year, and selections from the 3rd, 4th and 5th Sections for the third year. The exercises of the class, calculated to familiarize the Student with the peculiarities of the German Language, in orthography, grammatical forms and construction. will consist of translations, oral and written, reading and analysis, writing from dictation and composition.

Special regard will be had to the affinities of the German with the English.

In the Advanced Course the theory of German Grammar will receive greater expansion, and the Exercises will comprise select readings in German prose and poetry, composition in the various styles of writing, and translations from English writers. The text-books for this course will be made known at the commencement of the Session.

During the Advanced Course a Series of Lectures will be delivered on the following subjects:—History of the Germanic Nations and Germanic Dialects—The Nature of the latter, and their affinity with other Indo-European languages—History of German Literature from the earliest periods, the Gothic of Ulphilas and the Old-High-German of Notker and Otfried, down to the classical age of Goethe and Schiller,—to close with a brief notice of the state of German Literature at the present day.

*Fourth Year.*—An additional Course of German Literature for Students desiring a more complete knowledge of the Language.

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## HEBREW AND ORIENTAL LITERATURE.

Professor, Rev. A. DeSola, LL.D.

The course will comprise lectures on the History of the Hebrew Language and Literature in particular, with a general notice of the other Oriental Languages, their genius and peculiarities. Comparative Philology, affinity of roots, &c., will also receive due attention, while the portions selected for translation will be illustrated and explained by reference to Oriental manners, customs, history, &c.

*Junior Class.*—Grammar. The Text-book employed will be Gesenius' Hebrew Grammar, with exercises in Orthography and Etymology.

Reading.—Translation and Grammatical Analysis of Historical Portions of the Scriptures—Syntax—Mishle Shualim—Fables, &c.

*Senior Class.*—Introduction to the Study of Hebrew Poetry—its spirit and characteristics. Lowth and Sarchi as Text-books. Translations from the Psalms, Lamentations and Isaiah. Ancient compared with modern Hebrew Poetry; the productions of Halevi Gabirol, &c. Grammar, Exercises, &c., continued.—The Chaldee Language, Grammar, Mebo Halashon Aramith of J. Jeitteles. The Chaldee portions of Scripture. Targum of Onkelos and T. Yerushalmi.

## SPANISH LANGUAGE AND LITERATURE.

Rev. Professor DeSola.

Extra Fee for this Class, $5.00.

The study of the Spanish Language on this Continent, being generally pursued with special reference to commercial purposes, it will be sought to impart in this Course a practical knowledge of the Castilian, the richest and most harmonious of the Peninsular languages—as well as an acquaintance with its Literature.

Ollendorf's Spanish Grammar by Valazquez and Simonné, and the Reader of M. Valazquez are the Text-books employed in the Junior Class, who will also be exercised in composition by both written and oral exercises. In the Senior Class Fernandes' Exercises, continuation of Grammar and Composition, Cervantes' Don Quixote, Quintana Vida del Cid, and Marianas Historia will be the subjects of study. Besides a special comparison with the Portuguese Language, a general notice, literary and historical, of the Bascuence and other dialects will be given.

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## MATHEMATICS AND NATURAL PHILOSOPHY.

Professor, Alexander Johnson, LL.D.

MATHEMATICS. (*First Year*)—Arithmetic.—Euclid, Books 1, 2, 3, 4, 6, with Definitions of Book 5, (omitting propositions 27, 28, 29 of Book 6), Galbraith and Haughton's Edition.—Colenso's Algebra, Part 1 to end of Quadratic Equations.—Galbraith and Haughton's Plane Trigonometry to end of Solution of Plane Triangles—Nature and use of Logarithms.

MATHEMATICS. (*Second Year*)—Arithmetic, Euclid, Algebra and Trigonometry as before.—Remainder of Galbraith and Haughton's Plane Trigonometry.—Conic Sections treated Geometrically. (The Parabola as in Drew's Conic Sections, the definitions of the Ellipse and Hyperbola, with the fundamental properties of their tangents.) Euclid, Book XI. Props. 1 to 21; Book XII. Props. 1, 2.

MATHEMATICAL PHYSICS AND ASTRONOMY. (*Third Year.*)—Galbraith and Haughton's Mechanics, (omitting chap. 5 of Statics), Hydrostatics, Optics, and Astronomy.

At the Ordinary Examinations, answers to questions in Mechanics on the Chapters on Friction, Collision of Bodies, and Projectiles, will be taken into account only in determining the relative positions of those whose other answers shall entitle them to be placed in the First Class.

EXPERIMENTAL PHYSICS.—(*Third and Fourth Year.*)—1. *Light.*—Theories.—Reflection.—Refraction.—Dispersion.—Interference and Diffraction.—Double Refraction.—Polarization. 2. *Heat*—Dilatation of Solids, Liquids and Gases.—Specific and Latent Heat.—Radiation and Conduction of Heat. 3. *Electricity.*—Frictional and Voltaic. 4. *Magnetism.* 5. *Acoustics.*—Theory of Undulations.—Production and Propagation of Sound.—Vibrations of Rods and Plates.—Vibrations of Fluids.—Musical Sounds. Text-books—Lardner's Hand-books.

The lectures in Mathematical and Experimental Physics will be illustrated by Apparatus.

### *Honour Course.*

MATHEMATICS.—(*First Year.*)—Mulcahy's Modern Geometry, first five chapters.—Wood's Algebra.—Young's or Todhunter's Theory of Equations.—Hind's Plane and Spherical Trigonometry.

MATHEMATICS.—(*Second Year.*)—Theory of Equations and Trigonometry continued.—Salmon's Analytic Geometry, first thirteen chapters.—Hall's Calculus. Chapters 1, 2, 3, 4, 6, 7, of Diff. Cal., Chapters 1, 2, 3, 4, 5, of Integ. Cal.

MATHEMATICAL PHYSICS.—(*Third Year.*)—Todhunter's Statics, (omitting Chap 13.)–Sandeman's Dynamics of a Particle. Chap. I.—Chap. II.—Chap. III., Sects. 1-24.—Chap. V., Sects. 52-53.—Chap. VI. Miller's Hydrostatics, omitting Sects. 5, 6, and Appendix.—Walton's Mechanical Problems.–Griffin's or Parkinson's Optics.—Hymer's Astronomy, (selected course.)

## *B. A. Honour Course.*

PURE MATHEMATICS.—Hind's Plane and Spherical Trigonometry.—Young's or Todhunter'sTheory of Equations.—Hall's Differential and Integral Calculus. —Boole's Differential Equations, (selected course.)—Gregory's Examples of the Calculus, (omitting the last 2 chapters) Salmon's Conic Sections.—Salmon's Geometry of three Dimensions, (selected course.)

MECHANICS.—Todhunter's Statics.—Sandeman's Dynamics of a Particle.—Griffin's Dynamics of a Rigid Body.—Besant's Hydrostatics and Hydro-dynamics.—Walton's Mechanical Examples.—Walton's Examples in Hydrostatics.

ASTRONOMY.—Hymer's Astronomy.—Sir John Herschel's Outlines of Astronomy—Chapter on Planetary Perturbations.—Godfray's Lunar Theory.

Newton's Principia, Lib. I, Sects. 1, 2, 3, 9, and 11.

LIGHT.—Lloyd's Wave Theory of Light.

HEAT.—Lardner's Hand-book.

ELECTRICITY. } Lardner's Hand-book,
MAGNETISM. }

Students will be examined in the above courses, (Ordinary and Honour) both by papers and viva voce. The examination for B. A. Honours will continue for *four* days, during six hours each day.

The examinations for Honours in the other years will continue for *two* days.

Engineering Students may be candidates for Honours.

At every examination (whether Ordinary or Honour) in the first two years, Students are liable to examination in all the subjects of the previous course; and in the last two years in all the subjects of the third and fourth years.

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## NATURAL HISTORY.

Professor, J. W. Dawson, LL.D., F. R. S., F. G. S.

I. BOTANY.—(Second Year and part of Third Year.)

1. *Histology and Morphology of the Plant*, or description of its elementary tissues and organs.

2. *Physiology of the Plant*, or investigation of its functions of Nutrition and Reproduction.

3. *Systematic and Descriptive Botany*, or the Principles of the Classification of Plants, with descriptions of the more important Natural Orders, special notices of the Flora of Canada, and instructions for collecting and determining Plants, and for the use of the microscope.

4. *Geographical Botony*, or the distribution of Plants over the Globe.—*Text-book*—Gray's Botanical Text-book.

Students desiring a more complete knowledge of the subject, or who have collected plants in the Summer vacation, will have the benefit of an additional Course of determinative and Canadian Botany in the two first months of their third session. Prizes will be given in this Course for the best collection of plants, and the greatest proficiency in their determination. Duplicates of prize collections to remain in the College Museum.

II. Zoology and Comparative Physiology, (Third Year.)

1. *General Zoology*, including the elements of the Histology, Comparative Anatomy and Physiology of Animals, with the Principles of Classification, and the division of the Animal Kingdom into Provinces or Sub-Kingdoms.

2. *Descriptive Zoology*, including the characters of the classes and orders of the Animal Kingdom, illustrated by typical examples, and as far as possible by Canadian species.

*Text-books.*—Synopsis by the Professor, with Dallas' Outlines of Zoology, or Carpenter's Zoology.

III. Geology and Palæontology.—(Fourth year.)

1. *Physical Geology.*—Composition of Rocks and their structure on the small scale.—Origin of Rocks, aqueous, volcanic, plutonic, metamorphic.—Arrangement of Rocks on the large scale; stratification, elevation and disturbances, denudation.

2. *Chronological Geology and Palæontology.*—Data for determining the relative ages of formations. Classification according to age. Fauna and Flora of the successive periods. Geology of British America.

3. *Practical and Economical Geology.*—Methods of observation and of making Geological surveys. Applications of the science to Mining, Engineering, and Agriculture.

*Text-book*—Lyell's Elements.

## IV. *B. A. Honour Course.*

Students entering for honours must have passed creditably the examinations in Elementary Chemistry, Zoology, Botany and Experimental Physics; and should know the Elements of Drawing. Students entering for practical purposes will be required only to satisfy the Professor of their fitness for the studies of the class.

The Lectures will consist of an advanced Course in Geology and Palæontology, with Dana's Manual and Owen's Palæontology as text-books; and in Canadian Geology with the Report of the Geological Society of Canada as text-book.

In addition to this, the Student will be examined in any two of the following subjects:

1. The Systematic part of Botany as in Gray's "Text Book" and "Manual," and specimens illustrative of these books from the museum.

2. Owen's Lectures on the Invertebrate Animals, and specimens illustrative thereof from the museum.

3. Dana's Mineralogy, and specimens illustrative thereof from the museum.

4. Chemical Analysis, as taught in the Course of Practical Chemistry.

The Lectures in Natural History will be accompanied with demonstrations in the museum. Students in Natural History are also entitled to tickets of admission to the museum of the Natural History Society of Montreal.

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## CHEMISTRY AND MINERALOGY.

Professor, T. Sterry Hunt, M. A., F. R. S., &c.

Chemistry, Ordinary Lectures.—(*Students of the First Year, and Special Students.*) A course of about forty-five lectures, accompanied with experiments, and comprising an Elementary Course of General Chemistry. It will include the principles of Chemical Philosophy, the History of the Elements and their combinations, the principles of Organic Chemistry, and the History of the most important groups of Organic Compounds.

CHEMISTRY, PRACTICAL COURSE.—(*Special Students.*) Practical instructions in Analytical Chemistry will be given in the Laboratory of the University. The amount of time to be devoted to this course will depend, in a measure, upon the requirements of the students. At present it is proposed to devote to it the mornings of each Tuesday and Thursday, during the Course of Chemical Lectures.

*Text-books*—Fresenius' Qualitative Analysis, Croft's Manual, Bolley and Paul's Technical Analysis.

MINERALOGY.—(*Students of the Fourth Year.*) The Course of Mineralogy will consist of sixteen Lectures, commencing on the 1st of November, and will embrace the principles of Classification, the Chemical and Physical characters of Minerals, including Crystallography, the methods of determining species, and Descriptive Mineralogy; with special reference to those species most important in Geology, or useful in the Arts.

*Text-books*—Dana's Elements or Dana's Manual of Mineralogy, Nichol's Mineralogy.

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AGRICULTURAL CHEMISTRY.

Professor J. W. Dawson, L.L.D.

A course of Lectures on this subject is delivered at the Normal School, and Special Lectures and instructions will be given to such students as may present themselves.

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COMMERCIAL LAW.

Professor, J. J. C. Abbott, B. C. L.

(This class is accessible to Matriculated Students in the third or fourth year.)

The subjects of the Lectures will be the general Principles of the Law of Contracts, Agency, Bailments, Partnerships, Bills and Notes, and Insurance.

Persons taking tickets for this course, as occasional students, will also have access to the Lectures on Public Law.

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METEOROLOGY.

Professor, Charles Smallwood, M. D., LL.D.

A short course of lectures on this subject is expected to be delivered in the course of the session. Details will be made known by advertisement.

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SPECIAL COURSE OF ENGINEERING.

No announcement of Lectures in Engineering for the Session of 1863-4; can as yet be made; but should it prove possible to make arrangements for their delivery, special notice will be given before the commencement of the Session.

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SPECIAL COURSE OF AGRICULTURE.

This course will include, in addition to the lectures on Elementary Chemistry and Agriculture, the subjects of English Literature, French, Mathematics, Natural History and Natural Philosophy, and will extend over two sessions.

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A SPECIAL COURSE OF COMMERCE.

Including the subjects of English Composition, Arithmetic and Algebra, Mathematics and Natural Philosophy, Chemistry, Natural History, Modern Languages and History, in addition to Commercial and Public Law, will be accessible to Students desirous of devoting themselves, for one or two sessions to the collegiate studies more immediately connected with commercial pursuits.

2 | Hebrew. | Classics. | † Classics. | † Geology.

*Practical Chemistry*, Tuesday and Thursday at hours to be arranged with the class. *Agriculture*, (at the Normal School,) Wednesday, 4 to 5. *Commercial Law*, (room of Law Faculty), Monday and Wednesday, 4 to 5, from November 4. Library open every forenoon.

† For Candidates for Honours. * Optional or voluntary. ‡ Advanced course.

# Programme of Lectures in the Undergraduate Course in Arts and Special Courses.

## SESSION 1863-64.

### FIRST YEAR.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. |
|---|---|---|---|---|---|
| 9 | | Classics. | Classics. | Classics. | |
| 10 | Mathematics. | Mathematics. | Mathematics. | Mathematics. | Mathematics. |
| 11 | English. | Elementary Chemistry. | History. | Elementary Chemistry. | English. |
| 12 | Classics. | * French or German. | English. | * French or German. | Classics. |
| 1 | * Hebrew. | | * Hebrew. | | |

### SECOND YEAR.

| | | | | | |
|---|---|---|---|---|---|
| 9 | Classics. | Mathematics. | Mathematics. | Mathematics, | Classics. |
| 10 | Logic. | Botany. | French or German. | Botany. | Logic. |
| 11 | French or German. | ‡ French or German. | Logic. | ‡ French or German. | French or German. |
| 12 | † Mathematics. | Classics. | Classics. | Classics. | † Mathematics. |
| 1 | * Hebrew. | | * Hebrew. | | |

### THIRD YEAR.

| | | | | | |
|---|---|---|---|---|---|
| 9 | Mathematical Physics. | Zoology. | French or German. | Zoology. | Mathematical Physics. |
| 10 | † Classics. | Classics. | Classics. | Classics. | † Classics. |
| 11 | † Mathematical Physics. | Rhetoric. | ‡ French or German. | Rhetoric. | † Mathematical Physics. |
| 12 | ‡ French or German. | Experimental Physics. | Mathematical Physics. | Experimental Physics. | French or German. |
| 2 | * Hebrew. | | * Hebrew. § Drawing. | | |

### FOURTH YEAR.

| | | | | | |
|---|---|---|---|---|---|
| 9 | * German. | * French. | | * French. | * German. |
| 10 | Geology. | Moral Philosophy. | Moral Philosophy. | Moral Philosophy. | Geology. |
| 11 | Classics. | † Mathematical Physics. | † Mathematical Physics. | † Mathematical Physics. | Classics. |
| 12 | † Geology. | Experimental Physics. | | Experimental Physics. | † Geology. |
| 2 | Hebrew. | Classics. | | † Classics. | |

*Practical Chemistry*, Tuesday and Thursday at hours to be arranged with the class. *Agriculture*, (at the Normal School,) Wednesday, 4 to 5. *Commercial Law*, (room of Law Faculty), Monday and Wednesday, 4 to 5, from November 4. Library open every forenoon.

† For Candidates for Honours. * Optional or voluntary. ‡ Advanced course.

*The Library of the Faculty of Arts* contains 4000 volumes of standard works, selected with especial reference to the wants of Professors and Students.

*The Apparatus* includes Electrical and Pneumatic Instruments of the largest size and most modern construction, several Microscopes, a Telescope, and instruments illustrative of Statics, Dynamics, Hydrostatics, Heat, Optics, Astronomy and Geodesy. The Laboratory is fitted up with the apparatus necessary for the pursuit of practical researches in Chemistry.

*The Museum* consists of—

1. The general collection in Zoology, including specimens illustrative of the leading types in all the classes of Animals.
2. The general collection in Geology and Palæontology, including specimens illustrative of all the Geological periods.
3. The Holmes collection of 2,000 Canadian and Foreign Minerals.
4. The Holmes Herbarium, containing specimens of nearly all the plants indigenous to Lower Canada, and a large collection of exotic plants.
5. The Logan collection of 475 characteristic Canadian Fossils and Rocks.
6. The Couper collection of 2,400 Canadian Insects.

All these collections are used to illustrate the lectures, or are open to the inspection of Students.

# LIST OF THE PRINCIPAL DONATIONS

TO THE

# LIBRARY AND MUSEUM OF THE FACULTY OF ARTS

## SESSION 1856-7, TO SESSION 1862-3 INCLUSIVE.

### 1. *Library.*

Agricultural Society of New York, .... Transactions, 11 vols.
Council of Anti-Corn Law League, .... Proceedings, 1 vol.
Rev. G. D. Abbott, .... .... .... .... 4 Engravings.
Hon. H. Barnard, .... .... .... Education in Europe, 1 vol.
Canadian Institute, Toronto, .... .... Journal, 2 vols.
T. A. Grafton, Esq., .... .... .... 4 vols.
Government of Canada, .... .... .... .... Statutes, &c., 18 vols.
Prof. A. F. Holmes, M.D. .... .... Works on Natural History, 9 vols.
Mr. T. E. Jenkins, .... .... .... 1 vol.
Rev. T. Jones, .... .... .... 1 vol.
Prof. A. Johnson, .... .... .... 2 vols.
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The collections in Natural History, are now exposed in the new rooms provided by the liberality of Mr. Molson, though the naming of the specimens has not been quite completed, and will still require much time.

The principle of arrangement adopted has been that of disposing in flat and wall glass cases, suites of specimens illustrative of the subjects of the lectures in Natural History, in the order in which they are taken up in the lecture room. Geographical collections, and duplicate and extra specimens are placed in drawers under the cases in which objects of similar character are arranged. The greatest possible facilities will thus be afforded to the elementary student, while there will also be opportunity for farther aud more detailed study.

The whole collection, exclusive of plants, numbers about 10,000 specimens, of which about 2000 have been collected by Principal Dawson, or contributed from his private collection. The remainder have been procured by purchase or exchange, or by donations from friends of the University. The specimens may be grouped under the following heads:

1. *Mineralogy.*—The basis of this department is the collection of about 2000 Canadian and foreign minerals acquired from the late Dr. Holmes. To this have been added several species and varieties by donation and purchase.

2. *Geology and Palæontology.*—In this department are the fossils of the Holmes collection; the collections of rocks and fossils presented by Sir W. E. Logan, and numbering 475 specimens; collections of British fossils presented by H. Chapman, Esq., G. Evans, Esq., and others; collections of tertiary and carboniferous fossils, and local collections from the Azores, Murray Bay, Lake Superior, Lake Huron, &c., contributed by the Principal; with a great number of miscellaneous specimens, donations from friends and students. Casts of several interesting fossils from the British Museum, and a collection of European Mesozoic Fossils have recently been acquired by purchase.

3. *Zoology.*—In this department there are about 300 specimens of Vertebrate animals, selected as far as possible with a view to illustrate orders and families. Many of these specimens have been acquired by purchase, a few have been collected for the College, and there are valuable donations from G. Barnston, Esq., and others. In Articulates there are the Couper collection of Canadian insects, the Coleoptera of which, numbering nearly 700 species, have been catalogued by Le Conte; a miscellaneous collection of insects arranged by Mr. D'Urban to illustrate the orders and families; and a collection of British Hymenoptera presented by the same gentleman. In Arachnida, Crustacea, and Annelida, the collection is

still incomplete, though there are many valuable specimens, collected by the Principal, or contributed by Mr. R. I. Fowler and other friends. In Mollusks the basis of the collection consists of specimens presented by H. Chapman, Esq., a valuable collection of South Sea shells presented by Sir Wm. Dennison, 100 species of fresh-water shells acquired from Mr. Anthony, and duplicates from the Principal's collection, There are also a valuable collection of Norway shells presented by R. McAndrew, Esq., the commencement of a local Canadian collection, some rare and specially interesting species obtained by purchase, and donations from several friends. The collection of Radiates consists of specimens procured by the Principal, with donations from the Smithsonian Institute, Prof. Agassiz, Mrs. J. Redpath, Miss Carey, Rev. C. C. Carpenter, Mr. Fowler, Mr. Packard, and other friends.

4. *Botany.*—The principal part of this collection is the Holmes Herbarium of 500 Canadian plants, exclusive of the Grasses and Carices, which though named and revised by Col. Munro, have not yet been catalogued. There is also a collection of sixty specimens of Canadian woods collected by the late Dr. Barnston; a collection of Canadian woods presented by D. Davidson, Esq.; a collection of Australian woods presented by Sir. Wm. Dennison, and collections of Mosses, Lichens, Fungi, and Algæ. The whole of these are conveniently placed in a separate room. The collection of exotic plants is now in process of arrangement.

5. *Ethnology, &c.*—In this department there are a number of Indian relics from Montreal, presented by the Principal, several valuable casts of antiques presented by Mr. Blackwell, and a number of miscellaneous objects. It is not intended however to develop the collection much in this direction, as the available space is not more than sufficient for the specimens required in Natural History proper.

Measures are now in progress which it is hoped will tend to supply some of the principal deficiencies, and add useful geographical collections, so as to make the Museum all that it is intended to be, a small but thoroughly serviceable collection for the purpose of instructing students, and facilitating the research of local naturalists, for which purposes it will be in constant use. No attempt will be made to amass a large general collection like that of the Natural History Society, or to rival either that institution or the Geological Survey in the departments in which they are eminent. After securing a sufficient general collection of types for educational purposes, any farther additions will be made as far as possible in objects not adequately represented in the other collections in the city. Its arrangement in the new building much facilitates the labors of the professors of Natural History and Mineralogy, and it is hoped, will add new interest to the subject in the minds of students.

Donations of specimens are solicited from friends; and especially from the graduates and students of the University.

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Demonstrator and Curator of Museum. } H. NELSON.

Dean of the Faculty,—G. W. CAMPBELL, A.M., M.D.

The thirty-first Session of the Medical Faculty of the McGill University, will be opened in the customary manner on Monday, the 2nd November, 1863; and be continued during the six months following, by being devoted to instruction in the various courses which are subsequently detailed.

To young gentlemen in need of information upon the best manner of pursuing their studies, the following suggestions appear to recommend themselves.

Exclusively of general education, professional reading for some time previous to entrance, is advised as a preparation, whereby familiarity with technical terms will be gained, and an insight obtained into the subjects to be brought under notice during lectures.

Though three years constitute the shortest time required for College attendance, yet the Student is at liberty to extend it as much further as he pleases; the addition of a year, or even two, is considered to be a great benefit, for it obviates the crowding of branches within too brief a term, and permits of a more extensive attainment of the topics they embrace.

Attention is recommended to be given during the first Session to the primary branches entirely; during the second Session an increase is proper, and two of the final courses may be profitably conjoined

with such of the antecedent as are required; while during the remaining period further advance is to be made by completing the curriculum required of the candidate for graduation. Clinical courses should not be taken out during the first Session.

The ample and varied means which are placed at the disposal of the student by this school in its spacious accommodations and abundant provisions, together with the large hospitals in connexion with it, are briefly referred to in the following pages.

## COURSES OF LECTURES.

The number of Professors in the Faculty is Nine; the number of Classes, Ten; two of the classes (often conjoined in European Schools) being held by one Professor.

1. ANATOMY.—(Prof. Scott)—The fresh subject is chiefly employed in the illustration of the Lectures in this branch, aided however, by dried preparations, wax models, plates full size of life, &c. The Dissecting Room is under the direction of the Professor, aided by the Demonstrator of Anatomy. It is open from 8 a.m. to 10 p.m., being lighted with gas. All the usual conveniences are supplied, and the Demonstrator will be in attendance to assist the pupils in their operations.

2. CHEMISTRY.—(Prof. Sutherland)—Inorganic Chemistry is fully treated; and a large portion of the course is devoted to Organic Chemistry and its relations to Physiology. The branches of Physics bearing upon or connected with Chemistry, also engage the attention of the class. For experimental illustration, abundant apparatus is possessed by the Professor, among which may be enumerated, a powerful Air Pump—Oxy-Hydrogen Microscope—Polariscope—Extensive series of Crystallographical models—Electrical and Galvanic apparatus, &c., &c.

3. MATERIA MEDICA.—(Prof. Wright)—This course is illustrated by a Cabinet of Pharmacological objects; by Plates of Medicinal Plants, (Roque, Stephenson and Churchill)—by an Herbarium, and by the Microscope (Nachét) and Polariscope for examining Crystals.—Analytical experiments for detecting Adulterations, &c., are also shown, and diagrams, with other illustrations, are used.—*Dietetics, Pharmacy, and Therapeutics* are included in the course.

4. INSTITUTES OF MEDICINE.—(Prof. Fraser)—Under which are comprised *Histology, Physiology, General Pathology and General*

*Therapeutics.* The minute Structure and Composition of the various Organs, and the Fluids and Tissues of the Body in health and disease, are explained and illustrated by Microscopic Preparations, Plates and Preparations from the Museum.

5. PRACTICE OF MEDICINE.—(Prof. Howard)—The extensive series of plates contained in the Library, Libert's recent work, Cruveilhier, Carswell, Hope, Alibert, Willis, Bateman, &c., &c., will be employed; also Morbid Preparations and models of diseased parts.

6. SURGERY.—(Prof. Campbell)—Divided into Principles and Practice, including Surgical Anatomy and Operative Surgery, exhibited on the subject.—Quain's large plates, Maclise, Dalrymple, &c. The various surgical instruments and apparatus exhibited, and their uses and application explained and practically illustrated.

7. MIDWIFERY.—(Prof. Hall)—Including diseases of females and infants, illustrated by a series of Drawings on a large scale; by humid preparations: by models in wax; and by the use of the artificial Pelvis.

8. MEDICAL JURISPRUDENCE.—(Prof. McCallum.)—Includes Toxicology—the modes of testing for poisons are exhibited, and post-mortem appearances illustrated by plates—Insanity, Public Hygiene, and Medical Police are touched upon.

9. CLINICAL MEDICINE.—(Prof. McCallum.)—Taught by lectures, and at the bed side—Physical Diagnosis taught practically and each pupil invited to take part in it—Examination of the urine, chemically and microscopically explained and illustrated.

10. CLINICAL SURGERY.—(Prof. Craik)—Taught in a similar manner. For both these Classes ample material is afforded by the cases at the Montreal General Hospital.

Beside the above classes, Students are required to attend one course of Botany and one course of Zoology.*

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## LIBRARY AND MUSEUM.

The Library contains upwards of 3000 volumes, including the most useful books for reference, as well as the recent elementary ones; the works of the older authors as well as the most recent. It is open to the Students without charge, under necessary regulations for the care of the books. The Museum contains a large number of preparations, chiefly pathological; also, wax and papier machè models.

*See page 22.

## HOSPITALS.

The Montreal General Hospital is visited every day by the Medical officers in attendance. After the visit a large number of out-door patients are examined and prescribed for.

The Operating Room (used also for a Lecture Room) is so constructed as to suit the convenience of the Students in obtaining a good view of the operations going on.

The University Lying-in-Hospital is under the direction of the Professor of Midwifery. Students who have already attended one course of his lectures, are furnished with cases in rotation.

## PAST SESSION.

The number of Matriculated Students in the past Session was 175, of these 93 were from Canada East, 74 from Canada West, 1 from Nova Scotia, 1 from New Brunswick, 2 from Prince Edward's Island, and 4 from the United States.

The number of Students who passed the Primary Examination, which includes Anatomy, Chemistry, Materia Medica, Institutes of Medicine, and Botany, or Zoology, was 23, as follows :—

| | |
|---|---|
| Mr. HERBERT S. TEW, Montreal, C.E. | Mr. CHAS. F. BULLEN, Delaware, C.W. |
| " J. ROBERTSON, Georgetown, P.E.I. | " JAMES PATTERSON, Almonte, " |
| " DAVID ROBERTSON, Milton, C.W. | " GEORGE DICE, Milton, " |
| " DAVID H. HARRISON, St.Mary's " | " JOHN DODD, Port Hope, " |
| " RICH'D. A. KENNEDY, Montreal,C.E. | " WM. KEMPT, Lindsay, " |
| " D. A. MCDONNELL, Cornwall, C.W. | " MARCEL RICHARD, Osnabruck, " |
| " JOHN C. ANDERSON, Sorel, C.E. | " A. N. MARION, Contrecœur, C.E |
| " PETER MOFFATT,Carleton Place" | " WM. MORRISON, Waddington, U.S. |
| " P. A. MCDOUGALL, Aylmer, " | " HORACE P. REDNER, Belleville,C.W. |
| " GRIFFITH EVANS, Montreal, " | " JAMES A. TEMPLE, Quebec, C.E. |
| " JOHN RICHARDSON, Quebec, " | " JOHN D. MCCORD, Montreal, " |
| " CHARLEMAGNE DUBUC, Montreal" | |

At the meeting of Convocation, held May 4th, 31 gentlemen received the Degree of M.D., C.M.

The following list contains the names of the Graduates, and of their Inaugural Dissertations or Theses :

| | | |
|---|---|---|
| HORATIO C. BURRITT, | Smith's Falls, C.W., | Fractures of the Lower Extremity. |
| WILLIAM W. GORDON, | Bathurst, N.B., | Elephantiasis Graecorum. |
| JAMES L. MASON, M.A., | Montreal, C.E., | Modes of Death. |
| JEAN B. BLANCHET, | Quebec, " | Rhumatisme Aigu. |
| FRANK H. BRATHWAITE, | Barrie, C.W., | Some of the causes of Typhoid Fever. |
| ANGUS MACDONALD, | Lancaster, " | Pulmonary Vesicular Emphysema. |

| | | |
|---|---|---|
| JOHN H. BURLAND, | Montreal, C.E., | Ovarian Dropsy. |
| ALPHONSE BRODEUR, | Varennes, " | L'Influence des âges sur le développement des Maladies. |
| WILLIAM W. DICKSON, | Packenham, C.W., | Nature and modes of Death. |
| JAMES H. SAWYER, | Belleville, " | Depression. |
| ELI IVES, | Compton, C.E., | Diptheria. |
| ROBERT MCINTOSH, | Newcastle, C.W., | Croup, its nature and treatment. |
| JOHN J. MARSTON, | L'Orignal, " | Morbus Coxarius. |
| PETER E. BROWN, | Lake of 2 Mountains, C.E., | Pneumonia. |
| ALBERT E. SENKLER. | Brockville, C.W., | Enteric Fever, |
| ANTOINE A. DESAULNIERS, | Riviere du Loup, C.E., | Dyspepsie. |
| PIERRE RAINVILLE, | St. Marie de Monnoir, C.E., | Hémorrhagies Puerpérales. |
| HONORE THERIEN, | Riviere David, C.E., | Purgatifs. |
| GEORGE WOOD, | Shefford, " | Psoriasis. |
| DONALD J. GRANT, | Glengarry, C.W., | Scarlatina. |
| HENRY GRAHAM, | Bell's Corners, " | Dysentery. |
| WILLIAM E. BESSEY, | Georgetown, " | Anæsthesia. |
| LOUIS P. A. GRENIER, | Lotbiniere, C.E., | Causes Occultes des Maladies. |
| EDWARD C. MALLOCH, | Ottawa, C.W., | Arsenicum. |
| WILLIAM C. GUSTIN, | London, " | Diptheria. |
| THOMAS ROSS, | Aylmer, C.E., | Variola. |
| JAMES AYLEN, | " " | Sketch of the Practice of Medicine in the uncivilized world. |
| JAMES H. FULTON, | Winchester, C.W., | Scrofulosis. |
| FRANCIS D. THERIAULT, | Beauharnois, C.E., | Laringite Pseudo-Membraneuse. |
| FRANKLIN GOFORTH, | Thorold, C.W., | Erysipelas. |
| JAMES WINNIET DIGBY, | Brantford, " | Variola. |

## PRIZES.

The three University prizes given this Session by the Medical Faculty, were awarded as follows:

For the best Theses, WM. C. GUSTIN, London, C.W.

For the best Examination on the Final Branches, JOHN J. MARSTON, L'Orignal, C.W.

The prize for the best Examination on the Primary Branches, was divided equally between PETER A. MACDOUGALL, Aylmer, C.E., RICHARD A. KENNEDY, Montreal, and C. F. BULLEN, Delaware, C.W.

The Professor's prize for Materia Medica, was awarded to KENNETH REID, Montreal, C.E.

The Professor's prizes in Clinical Medicine, to A. E. SENKLER, Brockville, C.W., and KENNETH REID, Montreal.

In Botany the prize was given to RICHARD T. LANGRELL, Ottawa, C.W.

In Zoology to J. MCGILL MCINNIS, Vittoria, C.W.

The Theses that were deemed worthy of competing for the prize, were those of H. C. BURRITT, WM. W. GORDON and ROBERT MACINTOSH.

# EXTRACTS FROM THE REGULATIONS OF THE FACULTY.

## Chap. I.

*Relative to the Courses of Lectures, Fees, &c.*

1st. Each Professor shall deliver at least five lectures during the week, except in the classes of Clinical Medicine and of Clinical Surgery, in which only two Lectures shall be required; and in that of Medical Jurisprudence, if extended through six months, in which case three Lectures a week shall suffice.

2nd. Each Lecture shall be of one hour's duration.

3rd. Every Professor shall occasionally examine his class upon the subjects treated of in his preceding Lectures; and every such examination shall be considered a Lecture.

4th. A Roll of the names of the Students attending each class shall be called from time to time.

5th. All tickets which have not a Certificate of attendance attached shall be rejected when presented as testimonials previous to examination, unless the omission can be satisfactorily accounted for.

6th. The Fee for each class shall be $12, with the following exceptions: for that of Medical Jurisprudence, $10; for those of Clinical Medicine and Clinical Surgery, $6 each, for Botany and Zoology, $5. The Class Fees are payable in advance.

7th. Any Student, after having paid the fees, and attended two courses of any class, shall be entitled to a perpetual ticket for that class.

8th. The course of all the classes, except those of Clinical Medicine, Clinical Surgery and Medical Jurisprudence, shall be of six months' duration; the Classes of Clinical Medicine and of Clinical Surgery of three months' duration; and that of Medical Jurisprudence, either of three months' duration, in which case Five Lectures a week shall be given, or of six months' duration, in which case only Three Lectures a week shall be required.

9th. The courses shall commence on the first Monday in November, and with the exception of a vacation at Christmas, shall continue to the end of April.

## Chap. II.

*Of the Qualification and Studies of Students and Candidates for the Medical Degree.*

1st. All Students desirous of attending the Medical Lectures, shall, at the commencement of each Session, enroll their names and residences in the Register of the Medical Faculty, and procure from the Registrar a ticket of Matriculation, for which each Student shall pay a fee of $2.

2nd. The said Register shall be closed on the 31st day of December in each year and no tickets obtained from any of the Professors shall be received without previous Matriculation.

3rd. No one shall be admitted to the Degree of Doctor of Medicine and Master of Surgery who shall not either; 1stly have attended Lectures for a period of at least Four Sessions in this University, or some other University, College or School of Medicine, approved of by this University; or 2ndly, have studied medicine during at least Four years, and during that time have attended Lectures for a period of at least Three Sessions either in this University or some other University, College or School of Medicine, approved of by this University.

4th. Candidates for the final Examination shall furnish Testimonials of attendance on the following branches of Medical Education, viz:

| | |
|---|---|
| *Anatomy*,<br>*Chemistry*,<br>*Theory and practice of Surgery*,<br>*Principles and practice of Surgery*,<br>*Midwifery and diseases of Women and Children*,<br>*Materia Medica and Pharmacy*,<br>*Clinical Medicine*,<br>*Clinical Surgery*,<br>*Practical Anatomy*,<br>*Institutes of Medicine*, | Of which two Courses will be required. |
| *Medical Jurisprudence*,<br>*Zoology*,<br>*Botany*, | Of which one Course will be required. |

Provided, however, that Testimonials equivalent to, though not precisely the same as those above stated, may be presented and accepted.

5th. The Candidate must also give proof by ticket of having attended during twelve months the practice of the Montreal General Hospital, or that of some other Hospital, approved of by this University.

6th. Moreover, no one shall be permitted to become a Candidate for examination who shall not have attended at least One Session of this University, and during that Session at least four six months' classes, or three six months' and two three months' classes.

7th. Students in Medicine will be examined in Classics and in English or French Composition, the standard being such as may from time to time be determined by the Faculty.

8th. Every Candidate for the degree must, on or before the first day of April, present to the Dean of the Medical Faculty testimonials of his qualifications, entitling him to an examination, and also a Theses or inaugural dissertation, written by himself, on some subject connected with Medical or Surgical Science, either in the Latin, English or French Language. He must, at the same time, deliver to the Secretary of the Faculty the following Certificate:

MONTREAL——18—.

I, the undersigned, being desirous of obtaining the Degree of Doctor of Medicine and Master of Surgery, do hereby declare that I have attained the age of twenty-one years, (or, if the case be otherwise, that I shall have attained the age of twenty-one years before the next graduation day), and that I am not, (or shall not be at that time) under articles as a pupil or apprentice to any Physician, Surgeon or Apothecary.

(Signed), A. B.

9. The trials to be undergone by the Candidate shall be:

1st. The matriculation examination referred to in Section 7 supra. Students will undergo this Examination in the first session of their attendance, unless allowed to pospone it by special permission of the Faculty.

2nd. The private examination of his Theses as evidence both of Medical and General acquirement, followed (if approved) by its public defence. And

3rd. A general examination on all the branches of Medical and Surgical Science either oral or by written papers, as may from time to time be determined by the Faculty.

This examination will be divided into Primary and Final, the former comprehending the branches of Anatomy, Chemistry, Materia Medica, Institutes of Medicine, and Zoology or Botany; the latter, those of Practice of Medicine,

Surgery, Midwifery and Medical Jurisprudence. It will be optional with the student to present himself for the primary examination at the end of the third session.

10. The following Oath or affirmation will be exacted from the Candidate before receiving his Degree:

SPONSIO ACADEMICA.

In Facultate Medicinæ Universitatis Collegii McGill.

Ego, A——B——; Doctoratus in Arte Medica titulo jam donandus, sancto coram Deo cordium scrutatore, spondeo, me in omnibus, grati animi officiis erga hanc Universitatem ad extremum vitæ halitum, perseveraturum; tum porro artem medicam, caute, caste, et probe exercitaturum, et quoad in me est, omnia ad ægrotorum corporum salutem conducentia cum fide procuraturum; quæ denique, inter medendum, visa vel audita silere conveniat, non sine gravi causa vulgaturum. Ita præsens mihi spondenti adsit Numen.

11th. The fee for the degree of Doctor of Medicine and Surgery shall be twenty dollars, to be paid by the successful Candidate immediately after examination, together with a Fee of one dollar to the Registrar of the Medical Faculty.

12th. The money arising from the Fees of Graduation, as well as those of Matriculation, shall be applied to the enlargement of the Medical Library and Museum, and to defraying their expenses.

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## BOOKS RECOMMENDED TO STUDENTS.

ANATOMY.—Sharpey and Quain, Wilson, Ellis, Dublin Dissector and Grey.

CHEMISTRY.—Graham, Kane, Silliman.

MATERIA MEDICA.—Pereira's Elements, Royle's Manual, Wood's Therapeutics, Stillé's Therapeutics, Pereira on Food and Diet.

INSTITUTES OF MEDICINE, *Physiolagy*.—Carpenter's Principles of Human Physiology, Kirke and Paget's Manual, Todd and Bowman's Physiological Anatomy. *Physiology*.—Williams' Principles of Medicine, Chomel and Vogel's General Pathology.

SURGERY.—Paget's Surgical Pathology, Miller's Principles and Practice, Erichsen's Surgery, Druitt's do, Pirrie's do.

PRACTICE OF MEDICINE.—Wood's Practice of Medicine, Watson's Practice of Physic, Hooper's Physicians' Vademecum by Guy, Barlow's Practice.

MEDICAL JURISPRUDENCE.—Orfila Medicine Legal, Devergie Medicine Legal, Theorique et Pratique, Taylor's Jurisprudence, Guy's Forensic Medicine, Taylor on Poisons.

MIDWIFERY.—Churchill, Ramsbotham, Cœzeaux.

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N.B. Boarding may be obtained at from Twelve to Sixteen Dollars per Month.

# Faculty of Law.

The Principal (ex-officio.)

Professors—Badgley.
Abbott.
Torrance.
Lafrenaye.
Laflamme.
Carter.

Dean of the Faculty,—Hon. J. J. C. Abbott, Q.C., B.C.L.

The several courses of Lectures in the Faculty of Law, comprise every branch of Legal Study.

The Educational officers of this Faculty have felt that the Law of Lower Canada, though in many of its details purely local, retains, as its leading characteristics, the noble and imposing features of the civil law, and that the principles established in the Roman jurisprudence, still form the groundwork of many of its departments. The Lectures, therefore, though prepared with especial reference to the Law of Lower Canada, have been as far as consistent with their primary object, divested of any purely sectional character, and are made to inculcate such comprehensive principles, as form, to a great extent, the basis of every system of jurisprudence.

It is considered that this system will afford to students of the Laws of Lower Canada, a better foundation for their subsequent studies, and tend to give them a more extended and comprehensive grasp of legal subjects, than a course of instruction conducted solely with reference to local law; while it is hoped, in view of the increased importance which the study of civil law is everywhere assuming, that the advantages offered, and the mode of education adopted by this Faculty, will open to it an extensive field of usefulness.

The complete course of study in this Faculty extends over three years; but may be shortened to two years, when the student matriculates in the third year of his indentures.

The following are the subjects comprised in the complete course of three years :—

TO STUDENTS OF THE FIRST YEAR.

On Public and Constitutional Law.

Professor CARTER.

On obligations, and on the general principals of the law of Contracts.

Professor ABBOTT.

On the Civil Law. Persons under the Roman Law, Inst. B. I.

Professor TORRANCE.

On the origin and History of the Laws of France, of England, and of Lower Canada.

Professor LAFRENAYE.

On the Law of Real Estate and Customary Law.

Minority.
Tutors and Curators.
Husband and Wife.
Fiefs.
Servitudes.

Professor LAFLAMME.

TO STUDENTS OF THE SECOND YEAR.

On Criminal Law.

Professor CARTER.

On Commercial Contracts.

Agency.
Bailments.
Partnerships.
Bills and Notes.
Insurance.

Professor ABBOTT.

On the Civil Law.

Property in Possession, *jus in re*. Inst. B I. & II., B. III.T. 1–13.

Professor TORRANCE.

On Legal Bibliography.

The Bibliography of English Law ;
of French Law ; and
of Canadian Law.

Professor LAFRENAYE.

On the Law of Real Estate and Customary Law.

Successions.
Donations and Wills.
Contracts of Marriage.
Community of Property.

Professor LAFLAMME.

TO STUDENTS OF THE THIRD YEAR.

On Criminal Law.

Professor CARTER.

On Commercial Contracts.

Shipping, and Merchant Seamen.
Sale.
Pleading.
Practice.

Professor ABBOTT.

Inst. B. III. T. 14-30. & B. IV.
International Law.
Conflict of Laws.
Evidence.

Professor TORRANCE.

On Leases.
Deposits.
Sequestrations.
Pledges.
Suretyships.
Compositions.
Imprisonments.

Professor LAFLAMME.

On the Law of Real Estate and Customary Law.
Dower.
Privileges and Hypotheques.
Prescriptions.
Judicial Sales.

Professor LAFRENAYE.

Students who avail themselves of the privilege of attending two years only, will, nevertheless, be required to pass an examination in the subjects comprised in the three years' course.

Occasional Students will be received without matriculation, for attendance on any particular series of Lectures; and Students in the Faculty of Arts will be permitted to attend any of the courses, on such terms and conditions as may be fixed by that Faculty.

The matriculation fee is ten shillings, payable only by Students who have not previously matriculated in any other Faculty. The annual fee for the full course of Lectures is fixed for the present at three pounds ten shillings; for attendance on any one series of Lectures, one pound five shillings per anuum, and the fee on graduation, including *diploma*, is one pound five shillings.

Students who have completed their course of three years,—or of two years, if they have commenced in the third year of their indentures,—and have passed a satisfactory examination, will be entitled, upon the certificate and recommendation of the Law Faculty, to the Degree of Bachelor of Civil Law.

Applications for admission may be made to the Dean of the Faculty or to the Secretary of the College.

# STUDENTS OF THE UNIVERSITY.

*Session* 1862-3.

## FACULTY OF LAW.

Adams, Abel
Benjamin, Lewis N.
Boyd, John
Bullock, William E
Bertrand, Michel Cyrille
Beur, Arthur
Broport, Thomas
Butter, Thomas P
Charland, Alfred
Cosgrove, James Martin
Choquet, Ambroise
Clowe, John D
Cushing, Lemuel
Day, Edmund J
Doak, George O
Davidson, Charles P
Durand, Naphthalon
Desaulniers, Henri Lesueur
Dansereau, Arthur
Desjardins, Cleophas
Desjardins, Magloire
Grenier, Amédée L.W
Galarneau, Joseph Antoine
Gagnon, Joseph Pierre Amédée
Gilman, Francis E
Girard, Louis Narcisse
Hall, William A
Hunter, A. C
Holton, Edward
Hill, George W
Jones, Richard A. A
Joseph, Joseph O
Kelly, William H. J
Laurier, Wilfred
Lamere, Emmanuel
Lamere, Oude
Lefebre, Frederick
Loranger, Louis George
Lyman, Elisha Styles
Ouimet, André B. C
Rixford, Emmett H
Rogers, Edward F
Ronayne, John
Stevens, Charles O
Stephens, George W
Sabourin, Ernest
Tessier, Wilfred
Trenholme, Norman Wm
Trenholme, Edward H
Terrill, Joseph Lee
Vilbon, Charles H.
Wurtele, Charles H
Wright, Wm McKay
Welch, Alfred
Wright, Philemon

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## FACULTY OF MEDICINE.

*Session* 1862-3.

(*1st Year.*)

Alexander, John, Mascouche, C.E.
Blanchet, Jean B., Quebec, "
Brandon, John, Lambton, C.W.
Burch, Benjamin Franklin, Lachute, C.E.
Burrows, Philip Palmer, Ottawa, C.W.
Campbell, Samuel, Williamstown, "
Cassady, John, Goderich, "
Chaput, Narcisse, St. Hyacinthe, C.E.
Clark, Willoughby, Bowmanville, C.W.
Cooke, Charles Henry, Brantford, "
Cox, Frank, Charlottetown, P.E.I.
Cutler, Frederick Augustus, Sutton, C.E.
Deigneau, Stanislaus, Montreal, C.E.
Dubuc, Charlemagne, " "
Duclos, Esrom, A. " "
Dufort, Thadde Apolinaia, St. Mark, "
Dougan, William, St. Catherines, C.W.
Ferguson, John Candlish, Cumberland "
Forrest, James Royse Vansittart, Saguenay, "
Falkner, Alexander, Lancaster, "
Finnigan, Michael Peter, Eden, Vermont, U.S.
Ferguson, Alexander Roy, Glengarry, C.W.
Fraser, Duncan Robertson, Montreal, C.E.
Grenier, Louis, P. A., Lotbiniere, "

Graham, Adam Clark, St. Catherines C.W.
Gardner, William, St. Louis, C.E.
Gendron, Alfred, St. Hugues, "
Gravel, Joseph Alphonse, St. Antoine, "
Godfrey, Abraham Cross, Chicago, Illinois, U.S.
Gendron, Thomas, Beauport, C.E.
Godfrey, Alfred William, Montreal, "
Guernon, Adelaide J. A., St. Hyacinthe, C.E.
Hays, James, Simcoe, C.W.
Hervey, Jonas Jones, Brockville, "
Hunt, Henry Bleeker, Belleville, "
Isaacson, William Edwin, Montreal, C.E.
Irvine, James Clarke, Montreal, "
Jackson, Joseph Addison, Frelighsburgh, C.E.
Knowles, James Alexander, Cookstown, C.W.
Kemp, Simon, Montreal, C.E.
Lemere, Secondule, Montreal, "
Lovett, William, Ancaster, C.W.
Lang, Thomas Davidson, Owen Sound, "
Langrel, Richard Thomas, Ottawa, C.W
Leavitt, Julius, Melbourne, "
Loomis, John Sandfield, Belleville, C.W.
Longley, Edmond, Waterloo, C.E.
Legault, Daniel, Isle Perrault, "
Marcel, Richard Solomon, Osnabruck, C.E.
Mondelet, William H. A. V., Montreal, "
McInnis, Walter John McGill, Vittoria, C.W.
Meigs, Malcolm Roscoe, Bedford, C.E.
McGillis, John, Williamstown, C.W.
Marston, Alonzo Wright, Hull, C.E.
McMillan, Donald Miles, Cornwall, C.W.
McLennan, Finlay, Glengarry, "
Newman, John, Milton, "
Nesbitt, James Allan, Hemmingford, C.E.
O'Leary, James, Kamouraska, "
Parker Rufus, Newport, U.S.
Parke, Charles Smith, Quebec, C.E.
Paradis, Pierre Edmond, St. Denis, "
Perrault, Lewis, St. Hyacinthe, "
Rainville, Pierre, St. Marie de Monnoire, C.E.
Reid, Lester Holland, Bowmanville, C.W.
Robertson, Patrick, St. Andrews, "
Roy, Albert, St. Hyacinthe, "
Ross, George, Montreal, C.E.
Roberts, J. C. Edwards, Fredericton, N.B
Temple, James Algernon, Quebec, C.E.
Vercoe, Henry Liddell, Fingall, C.W.
Vernier, Jacques, Montreal, C.E.
Waller, Samuel William, Montreal, "
Wright, Philemon, Hull, "
Wakeham, William, Quebec, "
Walsh, Edmond, Durham, "

[*2nd Year.*]

Anderson, Alexander, Georgia, C.W.
Bown, Silas John, Kemptville, "
Bigelow, Timothy, Whitby, "
Blair, Robert Crammond, Ha Ha Bay, C.E.
Bender, Prospere, Quebec, C.E.
Blythe, John William, " "
Christie, John Boyd, Oxford Mills, C.W.
Codd, Alfred, Ottawa, "
Christie, Alexander, Montreal, C.E.
Collins, Charles Worthington, Quebec, "
Cullen, John Godfrey, Ottawa, C.W.
Dyce, George, Milton, "
DeWitt, Caleb Strong, Montreal, C.E.
Evans, Griffith, Montreal, "
Fitzgerald, James, Fenelon Falls, C.W.
Graham, Charles Everitt, Ottawa, "
Goforth, Franklin, Thorold, "
Harrison, David Howard, St. Marys. "
Hart, David Alexander, Montreal, C.E.
Hurd, Edward Payson, Eaton, "
Hambly, James Hale, Montreal, "
Harkin, Henry, Montreal C.E.
Halliday, James Thomas, Bowmanville, C.W.
Howitt, George Wilson, Belleville, "
Moffatt, Peter, Carleton Place, "
McVean, Jn. Morrison, Montaque "
Morley, Edward, Montreal, C.E
Marotte, Antoine, " "

Patterson, James, Almonte, C.W.
Quenouville, Alphonse, St. Laurent, C.E.
Robertson, David, Milton, C.W.
Rousseau, David, Quebec, C.E.
Reid, Kenneth, Montreal, "
Robertson, James, Georgetown, P.E.I.
Richardson, John R., Quebec, C.E.
Redner, Horace P., Belleville, "
Sherk, George, Walpole, C.W.
Switzer, Egerton Ryerson, Earnest-Town, "
Vincent, Noel, Montreal, C. E.
Wood, Hannibal Whitney, Dunham, "
Woodill, Alfred Haily, Shelburn, N.S.
Webb, James Thomas, Montreal, C. E.
Warmington, William, Montreal, "
Warren, Richard, Oshawa, C. W.

(*3rd Year Students.*)

Anderson, John Colborne, Sorel C.E.
Adams, Henry, Whitby, C.W.
Burritt, Horatio C., Smiths' Falls, "
Bessey, William Elijah, Georgetown, "
Brodeure, Alphonse, Varrennes, C.E.
Brathwaite, Frank H. Barrie C.W.
Beaudet, Alfred, Coteau du Lac, C.E.
Burland, John G., Montreal, "
Burland, John H., St. Johns, "
Bullen, Charles Francis, Delaware C.W.
Crichton, Stewart, Prescott, "
Dodd, John, Port Hope, "
Dickson, William Wallace, Packenham, "
Goldstone, Edward Arthur, Coburg, "
Ives, Eli, Compton, C.E.
Jones, John Cornelius, Prescott, C.W.
Kennedy, Richard A., Montreal, C.E.
Kempt, William, Lindsay, C.W.
McGlashan, Andrew, Toronto, "
Mayball, Edward, Montreal, C.E.
McDonald, Duncan Angus, Cornwall, C.W.
Mongenais, Napoleon, Rigaud, C.E.
McDougall, Peter Alexander, Aylmer, "
Massey, George, Montreal "
McCord, John Davidson, Montreal, "
Picault, M. J. A. Montreal, "
Phelan, Cornelius, J. F. R., Montreal, "
Pinet, Alexander R., St. Laurent, "
Stafford, William Augustus, Montreal, "
Tew, Herbert Sayer, Montreal, "

(*4th Year.*)

Aylen, James, Aylmer, C.E.
Brown, Peter Eli, Lake of two Mountains "
Church, Miles Kemble, Merrickville C.W.
Carr, William Hermanus, Hamilton, "
Desaulniers, Antoine, Riviere du Loup, C.E.
Fulton, G. Harvey, Winchester, C.W.
Gordon, W. Wallace, Bathurst, "
Grant, Donald James, Glengarry, "
Gustin, William C., London, "
Graham, Henry, Bell's Corners, "
Hall, James Burgess, Montreal, C.E.
Malloch, Edward C., Ottawa, C.W.
McDonald, Angus, Lancaster "
Merrick, Edgar Hamilton, Merrickville, "
Mason, J. Lindsay, Montreal, C.E.
Marston, John J., L'Orignal, "
Morrison, Wm. S., Waddington, U.S.
McIntosh, Robert, New Castle, C.W.
Robertson, Charles, Quebec, C.E.
Ross, Thomas, Aylmer, "
Sawyer, James H., Belleville, C.W.
Senkler, Albert Edward, Brockville, "
Therien, Honore, River David, C.E.
Thereault, F. D., Beauharnois, "
Wood, George, Shefford, "

## FACULTY OF ARTS.

1. *Undergraduates.*

Adams, Abel, Bedford.
Alexander, John, Mascouche
Anderson, Jacob DeWitt, Montreal.
Baynes, Donald, Montreal
Bancroft, Charles, "
Bayfield, Horace O., Charlottetown.
Becket, William Henry, Sherbrooke.
Bethune, Meredith B., Montreal.
Brown, Arthur Adderley "
Brewster, William, Montreal

Bothwell, John A., Durham.
Carmichael, James, Montreal.
Chipman, Clarence, "
†Clowe, John D., Richmond.
Court, William, Montreal.
†Cushing, Lemuel, Chatham.
†Davidson, Chas. P. Coteau Landing
†Davidson, Leonidas H. Cowansville
Davidson, William, Montreal.
Davis, Thomas P., Dudswell.
Duff, Archibald, Cowansville.
Duncan, Alexander, Montreal.
†Fairbairn, Thomas, "
†Fessenden, Elisha J., Frost Village.
Fowler, William, Montreal.
Green, Lonsdale, "
Hall, George B. Cowansville, C. E.
Hart, Lewis Alexander, Montreal.
Hicks, Francis W. Montreal.
Jordan, Wm. E., Eaton.
Krans, Edward H., Frelighsburg.
†Lyman, Frederick, Montreal.
Lynch, W. Warren, Knowlton,
†McCord, David, Montreal.
McCord, Robert, Montreal.
McDuff, Alexander "
†Merritt, David P., St. Johns.
McGregor, James, Montreal.
McGregor, Hugh, Martintown.
McOwat, Walter, Chatham.
McLeod, Hugh, Cape Breton.
Morrison, James, Waddington.
Morrison, John, "
Martin, Richard, L'Orignal.
Muir, John N., S. Georgetown.
Pease, G. A., Coteau Landing.
Perigo, James, Montreal.
†Robins, Sampson P., Montreal.
Rogers, George W., "
Sherril, Alvan F. Eaton.
Short, Robert, Sherbrooke.
Torr, James F., Montreal.
Tabb, Silas Everett, "
†Trenholme, N. W., Trenholmville,
Wardrop, Robert, Brockville.
Washburn, William, Hull.
Wilson John, Alexandria.
†Wicksteed, R. J., Quebec.

† B. A., 1862.

2. *In Special Course of Engineering.*

§Edwards, George, Clarence.
Fairbairn, William, Ottawa.
§Gaviller, Maurice, Bond Head.
Knight, William H., Quebec.
Marston, George J., Hull.
Rixford, Gulian P., Bedford.
§Reid, John L., Bowmanville.

§ G. C. E., 1862.

3. *Partial and Occasional Students.*

Court, James J.
Frazer, Ferguson.
Grant, William.
Holton, Edward.
Harris, Stewart.
McDougall, George, Montreal.
Smith, James, Montreal.

## SUMMARY.

| | |
|---|---|
| Students in Law | 55 |
| " in Medicine, | 175 |
| " in Arts, | 72 |
| | 302 |
| Deduct entered in two Faculties, | 6 |
| Total number of Students in College, | 296 |
| Students in Normal School, | 79 |
| Pupils in High School, | 262 |
| Pupils in Model Schools, | 300 |
| Total Students and Pupils | 937 |

# PRIZES, HONOURS, AND STANDING, OBTAINED BY STUDENTS, SESSION 1862-63.

## FACULTY OF LAW.

RANKING OF STUDENTS AS TO GENERAL PROFICIENCY.

*3rd Year.*

Wm. E. Bullock, 1st prize; Charles J. C. Wurtele, 2nd prize; ranked as 3rd Ernest Sabourin.

*2nd Year.*

Alfred Welch, and Henri L. Desaulniers, equal, 1st prize; Wm. Mackay Wright, 2nd prize.

*1st Year.*

F. E. Gilman, 1st prize; Elisha Stiles Lyman, 2nd prize.

STANDING IN THE SEVERAL CLASSES.

*Professor Carter's Class.*

*3rd Year.*

W. E. Bullock, and Sabourin Ernest, equal, 1st; Geo. O. Doak, and Charles P. Davidson, equal, 2nd.

*2nd Year.*

Alfred Welch and H. L. Desaulniers, equal, 1st; Wm. Mackay Wright, 2nd.

*1st Year.*

F. E. Gilman, 1st; Leonidas H. Davidson, and Arthur Dansereau, equal, 2nd.

*Professor Laflamme's Class.*

*3rd Year.*

Wm. E. Bullock and Charles J. C. Wurtele, equal, 1st; Ernest Sabourin, 2nd; Geo. O. Doak, and Edmund T. Day, equal, 3rd.

*2nd Year.*

Wm. Mackay Wright, 1st; Henri L. Desaulniers, 2nd; Wilfrid Laurier, 3rd.

*1st Year.*

F. E. Gilman, 1st; Emmett H. Rixford, 2nd.

*Professor Lafrenaye's Class.*

*3rd Year.*

Charles J. C. Wurtele, 1st; George O. Doak, 2nd.

*2nd Year.*

Alfred Welch, 1st; Wilfrid Laurier, 2nd.

*1st Year.*

James P. A. Gagnon, 1st; Elisha S. Lyman, 2nd.

*Professor Torrance's Class.*

*3rd Year.*

Wm. E. Bullock, 1st; Ernest Sabourin and Chas. J. C. Wurtele, equal, 2nd; Charles P. Davidson, 3rd.

*2nd Year.*

Henri L. Desaulniers, 1st; Alfred Welch, 2nd; John Boyd, 3rd.

*1st Year.*

Elisha S. Lyman, 1st; Emmett H. Rixford, and F. E. Gilman, equal 2nd.

## FACULTY OF MEDICINE.

GUSTIN, W. C., Prize for the best Theses.
MARSTON, JOHN J., Prize for the best Final Examination.
McDOUGALL, PETER A., KENNEDY, RICHARD A., BULLEN, C. F., } Prize for best Primary Examination.
REID, K., Professor's Prize in Materia Medica.
SENKLER, A. E., REID, K., } Professor's Prizes in Clinical Medicine.
LANGRELL, R. T.—Prize in Botany.
McINNES, J. G. McI.—Prize in Zoology.

For names of Students who have passed the Primary and Final Examinations, see page 31.

STUDENTS WHO HAVE PASSED THE EXAMINATIONS IN NATURAL HISTORY.

BOTANY. (*Class 1st*)—R. T. Langrell, A. Faulkner, H. L. Vercoe, W. Gardner, J. Hayes, L. H. Reid, E. Langley, J. J. Hervey, W. R. Meigs, H. B. Hunt, P. Robertson, J. C. E. Roberts, A. C. Grahame, Julius Leavitt. (*Class 2nd*)—G. Evans, A. R. Pinet, F. A. Cox, A. K. Ferguson J. A. Knowles, W. Clark, J. Vernier, C. H. Cooke, A. W. Godfrey, J. L. Loomis, J. Alexander, J. Brandon, R. F. Burch, F. D. Lang. (*Class 3rd*)—R. C. Blair, A. Gendron, G. W. Marston, W. Wakeham, F. McLennan, J. N. Dufort, W. Dougan, P. E. Paradis, J. C. Jones, D. R. Frazer, R. S. Parker, Jas. Nesbitt, J. O'Leary, S. Kemp, A. Beaudet, J. C. Irvine, J. C. Ferguson.

ZOOLOGY. (*Class 1st*)—W. J. McG. McInnes, S. Campbell. (*Class 2nd*)—E Walsh, R. J. Langrell, A. C. Godfrey, R. S. Markell.

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## FACULTY OF ARTS.

### HONOURS AND PRIZES.

*Graduating Class.*

CHAPMAN GOLD MEDAL.—For General Standing and First Rank Honours in Moral Philosophy and Rhetoric.—NORMAN WILLIAM TRENHOLME.

PRINCE OF WALES GOLD MEDAL.—For Mathematics and Natural Philosophy.—SAMPSON PAUL ROBINS.

Honours in Classics.—*First Rank*, LEMUEL CUSHING, RICHARD G. WICKSTEED.
Honours in Moral Philosophy and Rhetoric.—*Second Rank*, THOMAS FAIRBAIRN.
SAMPSON P. ROBINS, Certificate in Geology.
LEMUEL CUSHING, Certificate in Hebrew, and in German elementary course.
THOMAS FAIRBAIRN, Certificate in German advanced course.

*Students of the Third Year.*

DUFF, ARCHIBALD—1st Rank General Honours, 1st Rank Honours in Mathematics and Natural Philosophy; Certificate in Classics; Certificate in French.

McGREGOR, JAMES.—1st Rank General Honours; Prize in Rhetoric; Certificate in French.

SHERRILL, ALVAN F.—1st Rank General Honours; 1st Rank Honours in Classics, Certificate in German.

BOTHWELL, JOHN A.—2nd Rank General Honours, 1st Rank Honours in Rhetoric and Prize for essay, Prize in Zoology.

PEASE, GEORGE A.—2nd Rank General Honours, 1st Rank Honours in Classics.

MUIR, JOHN A.—Certificate in German.

*Students of the Second Year.*

WARDROP, ROBERT. (Brockville Grammar School.)—1st Rank General Honours. 1st Rank Honours in Mathematics, Certificate in Classics, and in Botany.

KRANS, EDWARD H. (Stanbridge Academy.)—1st Rank General Honours. 1st Rank Honours and Prize in Logic. Certificate in Classics, in Botany and in French.

SHORT, ROBERT.—Prize in Logic, and Essay.

*Students of the First Year*

BETHUNE, MEREDITH BLANCARNE.—(High School, Montreal.) 1st Rank General Honours, Second Rank Honours in Mathematics, Certificate in Classics.

ANDERSON, JACOB DEWITT.—(High School, Montreal.) Prize in English Literature, Certificate in Classics.

WASHBURN, W.—(Hull.) Prize for Essay in English Literature..

HART, LOUIS—(High School, Montreal,) Prize for Essay in English Literature, Certificate in Hebrew.

ENGINEERING STUDENTS.

First Year.—Gulian P. Rixford, Certificates in Surveying and Drawing, Certificate in Chemistry.

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*Students who have passed the Degree and Sessional Examinations.*

LOGIC, MORAL PHILOSOPHY AND ENGLISH LITERATURE.

Ordinary B. A. Examination.—Moral Philosophy and Rhetoric. Class I: Trenholme, Robins. Class II: Cushing, Davidson, (Leonidas,) Fessenden, Davidson (Charles,) Fairbairn, Wicksteed. Class III: Lyman, Merritt.

Third Year, (Rhetoric.)—Class I: McGregor, (prize). Sherrill, Bothwell, (prize Essay), Pease. Class II: Duff, Hicks, Green. Class III; Muir, Baynes.

Second Year, (Logic,)—Class I: Krans. Class II: Wardrop, (prize) Bancroft. Class III; Brewster, Fowler, Short, Court, Morrison.

Second Year, (English Literature.)—Class I: Krans, (prize) Bancroft.—Class II: Fowler, Brewster, Morrison.

First Year. (English Literature,)—Class I: Anderson, (prize), Washburn, Bethune, Chipman, McDuff, McCord. Class II: Davidson, Beckett, Browne, Morrison, Perrigo, McLeod, Hart, Smith. Class III: Davis, Rixford, Fairbairn, Tabb, Marston, Hall.

CLASSICS.

*Greek.*

B. A. Examination.—Class 1st: Trenholme, Fairbairn, Cushing.
Class 2nd: Davidson (Leon), Robins, Merrick, Wicksteed, Davidson, (Chas.)
Class 3rd: Lyman, Clowe,

Third Year.—Class 1st: Sherrill, (*Cert.*) Bothwell, Duff, and Pease, equal; Hicks and Muir (Jno.) equal.
Class 2nd: McGregor (James)
Class 3rd: Baynes.

Second Year.—Class 1st: Krans (*Cert.*) Wardrop, (*Cert.*) Brewster.
Class 2nd: Bancroft and Fowler, equal; Short, Court (Wm.)
Class 3rd: Morrison (Jas.)

First Year.—Class 1st: Wilson, Bethune (*Cert.*) Anderson, Chipman, Macduff, Washburn, Browne.
Class 2nd: McCord (Robt.), and Marston, equal; Smith, Hart, Perrigo and Davidson (Wm.), equal.
Class 3rd: Morrison (John), Beckett, Davis, Tabb, McLeod.

*Latin.*

B. A.—Class 1st: Trenholme, Fairbairn, Robins, Cushing, Wicksteed.
Class 2nd: Davidson (Leon), and Merrick, equal; Davidson (Chas.) and Lyman, equal.
Class 3rd: Clowe.
Third Year.—Class 1st: Duff (*Cert.*) Sherrill, Pease, Hicks, McGregor (Jas.) Bothwell.
Class 2nd: Baynes, Green and Muir, equal.
Class 3rd: None.
Second Year.—Class 1st: Wardrop (*Cert.*) Krans (*Cert.*) Brewster.
Class 2nd: Short; Fowler and Morrison (Jas.), equal; Court (Wm.) Bancroft.
Class 3rd: None.
First Year.—Class 1st: Anderson (*Cert.*), Wilson, Bethune and Browne, equal, Chipman and McCord (Robt.), equal; Macduff, Perrigo.
Class 2nd: Smith, Hart, Davidson (Wm.) Washburn.
Class 3rd: Marston, Becket, Hall, Tabb, McLeod, Davis, Morrison (Jno.)
First Year, (History)—Class I; Browne, Bethune, Wilson, Perrigo and Washburn, equal; Macduff and McCord (Robt.), equal. Class II: Beckett, Anderson and Marston, equal; Chipman. Class III: McLeod, Tabb, Hall, Davidson (Wm.) Hart.

MATHEMATICS AND NATURAL PHILOSOPHY.

Ordinary B. A. Examination.—Class 1st: Trenholme (Norman), Robins (Sampson P.), Davidson (Leonidas), Davidson (Charles P.) Class 2nd: Cushing (Lemuel), Fairbairn (Thomas), Wicksteed (Richard), Fessenden (Elisha). Class 3rd: Merritt (David P.), Lyman (Frederick.)

Third Year.—Class 1st: Duff (Archibald), McGregor (James), Sherrill (Alvan), Bothwell (John A.). Class 2nd: Pease (George A.), Muir (John N.), Green (Lonsdale), Class 3rd: Hicks (Francis W.) Baynes (Donald).

Second Year.—Class 1st: Wardrop (Robert), Krans (Edward K.), Fowler (Wm.) Court (William). Class 2nd: Bancroft (Charles), Brewster (Wm.) Class 3rd: Morrison (James); Short (Robert).

First Year.—Class 1st: Bethune (M.), McCord (Robert), Macduff, (A.,) Tabb (Silas E.), Chipman (Clarence), Marston (Richard H.). Class 2nd: Perrigo (James), Anderson (Jacob D.), Davidson (William) Washburn (William). Class 3rd: Smith (James), Hart (Louis A), Browne (Arthur), Morrison (John), Wilson (John), McLeod (Hugh), Hall (George B.), Davis (Thomas P.).

*Engineering Students.*

Senior Year.—Edwards, George.
Junior Year.—Rixford, Gulian P.

*Honour Examinations*

B. A. (*Gold Medal.*)—Robins, Sampson P.
Third Year.—*First Rank.*—Duff, Archibald.
Second Year.—*First Rank.*—Wardrop, Robert.
First Year.—*Second Rank.*—Bethune, Meredith B.

NATURAL SCIENCE.

Ordinary B. A. and Engineering Examination.—(Geology)—Class 1st: Robins (*Certificate*), Trenholme, Lyman, Cushing. Class 2nd: Edwards, Merritt. Class 3rd: Fessenden, Marston.

Third Year—(Zoology)—Class 1st: Bothwell (Prize), McGregor, Duff, Sherrill. Class 2nd; Hicks, Pease, Green, Baynes, Muir.

Second Year—(Botany)—Class 1st; Krans (*Certificate*) Wardrop (*Certificate*), Fowler. Class 2nd; Bancroft, Brewster, Morrison. Class 3rd; Court Wm., Short.

First Year—(Chemistry)—Class 1st; Rixford (*Certificate*), Washburn, MacDuff, Marston, Bethune. Class 2nd; Anderson and Davidson, equal, Morrison, (J.) Class 3rd; Perrigo, McLeod, Tabb, Beckett, Chipman, Brown, Hall, McCord.

FRENCH.

B. A. Examination—Fourth Year—Class 1st; None. Class 2nd; Wicksteed. Class 3rd; Merritt.

Third Year—Advanced Course—Class 1st; McGregor (*Certificate*), Duff *Certificate*, Hicks. Class 2nd; Pease, Bothwell. Class 3rd; Sherrill, Baynes.

Elementary Course—None.

Second Year—Advanced Course—Class 1st; Krans (*Certificate*), Brewster. Class 2nd; Bancroft. Class 3rd; Fowler, Court.

Elementary Course—Class 1st; Wardrop, Perrigo. Class 2nd; Rixford, Edwards. Class 3rd; Short.

GERMAN.

B. A. Examination—Fourth Year—Advanced Course—Class 1st; T. Fairbairn (*Certificate.*) Class 2nd; None. Class 3rd; Lyman.

Elementary Course—Class 1st; Cushing (*Certificate,*) Trenholme. Class 2nd L. Davidson, Robins.

Third Year—Elementary Course—Class 1st; J. N. Muir (*Certificate*), and Sherrill (*Certificate*), equal.

HEBREW.

Senior Division—Class 1st; L. Cushing (*Certificate*). Class 2nd: Fessenden. Unclassed, Duncan.

Junior Division—Class 1st; L. Hart (*Certificate*). Class 2nd: McGregor.

ENGINEERING.

Senior Year—Class 1st; Edwards.
Junior Year—Class 1st; Rixford.

# GRADUATES OF THE UNIVERSITY.

## DOCTORS OF DIVINITY.

Rev. John Bethune, (ad eundum) 1843
*Rev. Daniel Falloon, (Hon.)...1844

## DOCTORS OF LAWS AND OF CIVIL LAW.

Rev. Francis Lundy, (D.C.L hon.)1843
Hon. Wm. Badgley, (D.C.L. Hon.) 1843
*Hon. J. R. Vallières de St. Real, (D.C.L, Hon.).....1844
Rev. Wm. T. Leach, (D.C.L. Hon.)1849 LL.D. Hon. 1857]
Rev. Wm. A. Adamson, (D.C.L. Hon.).....1850
Rev. Benjamin Davies, Ph. D. (LL.D. Hon.).....1856
Sir William E. Logan, Knt. (LL.D. Hon.).....1856
Charles Smallwood, M. D. (LL.D. Hon.).....1856
Hon. Pierre J. O. Chauveau, (LL.D. Hon.).....1857
John William Dawson, M. A. (LL.D. Hon.) 1857
Edmund A. Meredith, B.C.L. (LL.D Hon.).....1857
*William Smith (LL.D. Hon.)....1858
Rev. A. DeSola, (LL.D. Hon.)...1858
*Andrew F. Holmes, M.D, (LL.D. Hon.].....1858
Right Hon. Sir Edmund W. Head, Baronet, M.A. [LL.D. Hon.]..1862
*Rev. D. Falloon, D.D. [LL.D. Hon.].....1862
George Lawson, Ph. D. [LL.D. Hon.].....1862
Alexander Morris, M. A., B.C.L. [D.C.L. in Course.].....1862
Christopher Abbott, B.C.L. [D.C.L. in Course ].....1862

## DOCTORS OF MEDICINE.

1833.

William Logie,.....L.C.

1834.

Roderick Macdonald,.....U.C.
*E. P. McNaughton,.....L.C.
John Finlayson.....Scotland.

1835.

Joseph Workman,.....L.C.
Frederick W. Hart,.....do
Pierre Dansereau,.....do

1836.

William Sutherland,.....L.C.
*Louis H. Gauvreau,.....L.C.
Robert T. Reynolds,.....U.C.
William Fraser,.....L.C.

1841.

Terrence Sparham,.....U.C.
Samuel McMurray,.....L.C.
Charles D. DeSelles,.....do

1842.

*Thomas Reynolds,.....U.C.
*Thomas L. B. Meredith,.....L.C.
David D. Logan,.....do
Louis Boyer,.....do
Charles Dansereau,.....do
*James Thompson,.....England
*James R. Dick,.....L.C.

1843.

Augustus Carson,.....England.
*Severe Dorion,..... L.C.
John L. Leprohon,.....L C.
Jean G. Bibaud,.....do
Jean M. Paquin,.....do
*William Oscar Dunn,.....L.C
Charles B. de Boucherville,.....do
*Andrew F. Holmes,....[ad eun.] do
Geo. W. Campbell, M.A. [ad eun] do
Archibald Hall,.....[ad eun.] do
Stephen C. Sewell,.....[ad eun.] do
*Michael McCulloch,.....[Hon.] do
Oliver T. Bruneau,.....[Hon.] do

1844.

Eugene Trudel,.....L.C.
Philias Proulx,.....do
Rufus Holden,.....U.C.
Alexander Long,.....L.C.
William E. Scott,.....do
William H. Wagner,.....U.C.
Robert Godfrey,.....L.C.

1845.

Pierre Fortin,.....L.C.

1846.

William Kelly, Surgeon, Royal Artillery.
A. Thomas Jackson, Staff Surgeon in the Army.
*Andrew Aylmer Staunton, Surgeon, Royal Artillery.
Stephen Sewell Foster,.....L.C.
John Wilbrod Wilscam,.....do
*Alfred Malhiot,.....do
James J. Dickinson,.....U.C.
*George Augustus Scriven,.....do
Henry Paradis,.....L.C.
George D. Gibb,.....do
Peter H. Church,.....U.C.

*Deceased.

1847.

George Edworth Fenwick,.....L.C.
John Duncan McDiarmid, Staff Surgeon in the Army.
Peter A. McDougall,..... U.C.
William Mayrand,.....L.C.
*Peter Warren Dease,.....do
William H. Brouse,.....U.C.
Darby Bergin,.....do
*Christopher Widmer, Toronto, (Hon.).....U.C.
James Sampson, Kingston, (Hon.)do
*Daniel Arnoldi,Montreal,(Hon.) L.C.
James Douglas, Quebec, (Hon.) do
A. B. Larocque,.....do
Samuel B. Schmidt,.....do
*John Fisher,.....L.C.
William Irwin Breslin, Asst Surgeon 46th Regiment of Line.
*Alexis Pinet,.....L.C.

1848.

T. W Smythe,.....U.C.
Thomas Christie, .....L.C.
Josiah G. Whitcomb,.....do
John W. Hall,..... ..do
Josiah S. Brigham,.....do
William McGill,.....U.C.
*John Rolph Lee,.....do
Albert Baker.....England.
Joseph R. Culver,.....U.C.
R. Palmer Howard,.....L.C.
William Wright,.....do
Peter Henderson,.....do
Pierre F. Longpré,.....do
Edward S. L. Painchaud,.....do
André Seguin,.....do
Leonard Lepailleur,.....do
*Wolfred Nelson, Montreal,(Hon.)do

1849.

Jules M. Quesnel,.....L.C.
*John N. Buxton,.....do
Moise Sabourin,.....do
Francis Challinor,.....England.
Thomas McGrath,.....L.C.
*Israel P. Marr,.....U.C.
George C. Wood,.....Ireland.
Eneas McDonnell,.....U.C.
William Odell, Surgeon 19th Regiment of the Line.

1850.

Duncan C. McCallum,.....L.C.
Amos S. Bristol,.....U.C.
George W. Sanderson,.....do
John A. Nelles,.....do
Jonathan M. Vannorman,.....do
*Enoch P. Dorland,.....do
Robert M. Wilson,.....do
Andre Loupret,.....do
Charles Lemoine, .....do
Olivier Raymond,.....U.C.
Josh. Morrin, Quebec, (Hon.)...L.C.

1851.

Remi Claude Weilbrenner,.....L.C.
William H. Hingston,.....do
*Peter O'Carr,.....U.C.
George McMicking,.....do
Robert Walker.....do
Samuel T. Brooks,.....L.C.
John J. Blacklock,.....U.C.
Onesime Bruneau,.....L.C.
Charles E. Casgrain,.....do
George Leclerc,.....do
John W. Moont,.....U.C.

1852.

Robert Thompson,.....L.C.
Richard Weir,.....U.C.
Edward H. Bucke,.....U.C.
Joseph Moore,.....do
Joseph Garvey,.....do
John Easton,.....do
Victor Perrault,.....L.C.
Eric B. Sparham,.....U.C.
George Henry Boulter,.....do
Henry Thomas Ridley,.....do
Burnham G. G. Demorest,.....do
Newton W. Powell.....do
Allan Ruttan,.....do
Angus McDonnell,.....L.C.
*Amable Simard,.....do

1853.

Henry A. Tuzo,.....L.C.
Benjamin Workman,.....do
Adolphe Bruneau,.....do
*Stephen Ducket,.....L.C.
Colin Macdonald,.....U.C.
Richard Moore,.....Ireland.
John Rae, Hamilton, (Hon.)....U.C.
*Walter Henry, Belleville,(Hon.)C.W.

1854.

*James Crawford,....(ad eun.) L.C.
Thomas W. Jones,....(ad eun.) do
Augustus M. Corbett,.....U.C.
William H. Corbett,.....do
Robert Craik,.....L.C.
*Joseph P. Phelan,.....U C.
James A. Grant,.....do
Thomas Simpson,.....L.C.
*David M. Rintoul,.....do
Cornelius H. O'Callaghan,....Cuba.
Alfred J. Burns,.....U.C.
Thomas Y. Savage,..... do
Walter McKay,.....do
Herman L. Cook,..... .do
Peter Rolph Shaver,.....do
Stephen A. Scott,... .....do

1855.

Nelson Loverin,.....U.C.
Elephalet G. Edwards,.....do

John L. Stevenson,.....U.C.
Coller M. Church,.....L.C.
John B. Gibson,.....do
George Pringle,.....U.C.
*James Paterson,.....do
Charles Ault,.....do
James F. Ault,.....do
Elzear Gauvreau,.....L.C.

1856.

W. Justus Jones,.....U.C.
Joseph Alex. Hamel,.....L.C.
Ed. Laberge,.....do
Jos. G. P. Dupuis,.....do
Alex. H. Kollmyer,.....do
Walter J. Henry,.....do
*A. Kirkpatrick,.....U.C.
James C. Lee,.....do
James McGregor Stevenson,.....do
*James Barnston,.....(ad eun.)L.C.
John Reddy,.....(ad eun.) do

1857.

Alex. D. Stevens,.....L.C.
Levi R. Church,.....do
A. C. E. Picault,.....do
Henry Shoebottom,.....do
Robert Howden,.....do
David T. Robertson,.....do
William Wilson,.....do
Etienne R. R. Riel,.....U.C.
John Aylen,.....L.C.
R. Whiteford,.....do
R. N. Shaver,.....U.C.
John McMillan,.....do
Andrew A. Boylan,.....do
Gordon J. Emery,.....do

1858.

*James Kerr,.....U.C.
T. F. English,.....do
Jas. McGarry,.....L.C.
Wm. Harkin,.....do
George Pattee,.....do
L. T. Robitaille,.....do
Wm. H. Taylor,.....do
C. W. E. Glenn,.....do
James S. Duncan,.....do
Alex. Peter Reid,.....U.C.
W. C. Thurlow Cunynghame,...L.C.

1859.

Patrick O'Leary,.....L.C.
John Rambaut, Surgeon, Canadian Rifles,.....
William A. Duckett.....L.C.
Edward W. Smith,.....do
Phillippe Giroux,.....do
E. Gilbert Provost,.....do
Stephen Wright,.....do
Linus O. Thayer,.....do
Edwards T. Roberts,.....do
William M. H. King,.....do
James Joseph O'Dea,.....U.C.
Andrew W. Hamilton,.....do
James McIntosh,.....do
James Stephenson,.....do
*Thomas Keeler,.....do
Samuel A. Carter,.....do
Irvine Bogart,.....do
Robert W. W. Carroll,.....do
William Ramsey,.....do
Walker H. Marr,.....U.C.
George W. Hurlburt,.....do
Samuel S. Macklem,.....do

1860.

Henry Warren,.....C.W.
Alexander Ault,.....do
Adolphe Robillard,.....do
David Woods, L. R. C. S. I., Staff Surgeon,.....C.E.
Louis G. Turgeon,.....do
John Erskine,.....do
Gustave Chevalier,.....do
William P. O. Whitwell,.....do
Henri Adolphe Mignault,.....do
Alexander McLean,.....P.E.I.
Arthur Courthope Poussette,..C.W.
Edwin Augustus Hulbert,.....C.E.
John Wallworth Pickup,.....do
William Edward Bowman,.....do
Robert Wilkins Burnham,.....C.W.
George Loyd McKelcan,.....do
Louis Robitaille,.....C.E.
Louis J. A. McMillan,.....do
Israel Wood Powell,.....C.W.
Francis Wayland Campbell,....C.E.
Henry Thomas Tate,.....do
Charles H. Donnelly,.....C.W.
Louis Duhamel,.....do

1861.

John Rolph Malcolm,.....C.W.
Herbert H. Read,.....N.S.
David L. Philip,.....C.W.
Arthur Lyon,.....do
Jacob E. Browse,.....do
Henry Usher,.....do
Napoleon Leclair,.....do
Fred. Dunbar Sutherland,.....C.E.
Peter McLaren,.....C.W.
James Gun,.....do
Rufus Frederick Hamilton,.....C.E.
Donald McGillivray,.....C.W.
Joseph M. Drake,.....C.E.
Vinceslaus G. B. Chagnon,.....do.
Heriot Lindsay,.....C.W.
George W. Powers,.....C.E.
George E. Gascoyne, Staff Asst. Surgeon,.....C.E.
Horace Nelson,.....do
Duncan McGregor,.....C.W.
Charles Battersby,.....do

1862.

Charles Richard Nicholls, Surg. Major Grenadier Guards,...C.E.
John Edward Moffatt, Staff Surg. Guards,.....do
Henry G. H. Lawrence, Asst. Surg. Grenadier Guards,....do
Arthur G. Elkington, Asst. Surg. Scots Fusilier Guards,.....do
Edward Lewis Lundy, Staff Asst. Surgeon,.....do
St. John Killery, Staff Asst. Surg. do
Robert Atkinson, do do do
Thos. B. P. O'Brien, do do do
James Lister,.....C.W.
Fred. John Austin,.....C.E.
Richard Maurice Buck,.....C.W.
William S. Debonald,.....C.E.
Edward Henry Trenholme,.....do
Charles Howard Church,.....C.W.
Francis Lewis Mack,.....do
John Alexander Stewart,.....P.E.I.
David Beattie,.....C.W.
John Wherry,.....C.E.
Alfred Bellew,.....do
George Ashbold Chesley,.....C.W.
James Gordon Strowbridge,.....do
Donald Peter Campbell,.....do
John Harkness,.....do

1863.

Horatio C. Burritt,.....C.W.
William Wallace Gordon,.....N.B.
James Lindsay Mason,.....C.E.
J. B. Blanchet,..... do
Francis H. Braithwaite,.....C.W.
Angus MacDonald,..... do
John H. Burland,.....C.E.
Alphonse Brodeur,..... do
William W. Dickson,.....C.W.
James E. Sawyer,..... do
Eli Ives,.....C.E.
Robert MacIntosh,.....C.W.
John J. Marston,..... do
Peter E. Brown,.....C.E.
A. E. Senkler,.....C.W.
Antoine A. Desaulniers,.....C.E.
Pierre Rainville,..... do
Honore Therien,..... do
George Wood,..... do
Donald J. Grant,.....C.W.
Henry Graham,..... do
William E. Bessey,..... do
L. P. A. Grenier,.....C.E.
Edward C. Malloch,.....C.W.
William Claude Gustin,..... do
Thomas Ross..... do
James Aylen,.....C.E.
James H. Fulton,.....C.W.
F. D. Theriault,.....C.E.
Franklin Goforth,.....C.W.
James Winniet Digby,..... do

MASTERS OF ARTS.

Alex. Morris, B.A., B.C.L.,.....1852
Rev. John Butler,.....(Hon). do
Rev. Charles Bancroft, (ad eun) 1855
Henry Aspinwall Howe, (Hon.) do
Thomas A. Gibson,.....do 1856
George D. Gibb, M.D.....do do
Brown Chamberlin, B.C.L., (ad eun).....1857
David Rodger,.....(Hon.) 1857
John H. Graham,..... .....do 1859
William M. Bowman,.....do. do
Rev. George Cornish, B.A (ad eun) 1860
Edwin Gould, B.A.,.....1860
Robert A. Leach, B.A., B.C.L.,. do
Rev. John Kennedy, B.A.,..... do
Dunbar Browne, B.A., B.C.L.,..1861
John Thorburn,.....(Hon.) do
Reginald J. Plimsoll, B.A.,.....1862
John A. Perkins, B.A..... do
James Kirby, B.A., B.C.L.,..... do
Corydon J. Mattice,..... do
James L. Mason, B.A.,.....1863
Rev. Alexander F. Kemp, (Hon.) do

BACHELORS OF CIVIL LAW.

Christopher C. Abbott,..... ....1850
Alexander Morris,.....do
William B. Lambe,.....do
Brown Chamberlin,.....do
Romeo H. Stephens,.....do
Alexander Molson,.....1851
Frank H. Badgley,.....1852
John J. C. Abbott,.....1854
Peter Aylen, B A ,.....do
Edward J. Hemming,.....1855
John G. Barnston,.....1856
William F. Gairdiner,.....do
R. G. Laflamme,.....(Hon.) do
P. E. Lafrenaye,.....do 1856
H. L. Snowdon,.....do
Frederick W. Torrance, M. A. (Hon.).....do
Dunbar Browne, B.A.....1858
Isai Jodoin,.....do
J. G. Daly,.....do
Pierre Doutre,.....do
Zephirin Gauthier,.....1859
Damase F. J. Richard,.....do
Chas. Ambroise Pariseault,.....do
Edson Kemp, B. A.....1860
Robert A. Leach, B. A.....do

John L. Morris,.....1860
Telesphore Larose,.....do
John Robert McLaren,.....do
Desiré Girouard,.....do
Thomas Joseph Walsh,..... do
John Dunlop..... do
James Ponsonby Sexton,..... do
Henry Carden,..... do
Mederic Lanctot,..... do
John A. Perkins,..... do
*Reginald J. Plimsoll, B.A.,....1861
Jean L. B. Desrochers,..... do
Charles A. Rochon,..... do
Frederick MacKenzie,..... do
Louis Armstrong,..... do
Gonsalve Doutre,..... do
Adolphe P. Ouimet, ..... do
Phillippe Vandal,..... do
John Aylen, M.D.,..... do
Netterville H. Driscoll,..... do
David S. Leach,..... do
Alexis L. Desaulniers,..... do
Thomas D'Arcy McGee,..... do
James Kirby, M.A.,.....1862
John P. Kelly,..... do
Irvine Allan,.....1862
Athanase Branchard,..... do
Victor B. Sicotte,..... do
Sarsfield B. Nagle,..... do
Melbourne Tate,..... do
Joseph C. Curran,..... do
Robert C. Cowan,..... do
A. P. Adelard Dorion,..... do
Isidore G. Ascher,.....1863
John G. K. Houghton,..... do
Lewis N. Benjamin,..... do
Edmund T. Day,..... do
George O. Doak,..... do
Charles J. Davidson,..... do
Amedée L. W. Grenier,..... do
William A. Hall..... do
George W. Stephens,..... do
Ernest Sabourin,..... do
Charles A. Vilbon..... do
Charles J. C. Wurtele,..... do
William E. Bullock,..... do
Alfred Charland,..... do
Frederick Lefebvre,..... do
Louis George Loranger,..... do
William Mackay Wright,..... do

BACHELORS OF ARTS.

Alexander Morris,.....1849
Peter Aylen.....1850
Rev. Charles B. Pettit,..... do
Charles E. Bockus,.....1852
Charles W. Philips..... do
George T. Stethem,..... do
Thomas Browne,.....1853
Edwin Gould,.....1856
John R. McLaren,..... do
Dunbar Browne..... do
Rev. George Cornish, BA. London, (ad eun)..... do
*Philip G. Kershaw,..... : ...1857
Alexander Barnston,..(*a*)..... do
George D. Redpath,..... do
Robert, W. Ferrier,..... do
Robert A. Leach,..... do
Harry McLaren,..(*a*).....1858
*Reginald J. Plimsoll,..... do
John A. Perkins,..... do
James Kirby,..(*a*).....1859
James L. Mason,..... do
Corydon J. Mattice,..... do
William Morrice..... do
Edson Kemp,..... do
William E. Bullock,..(*a*).....1860
John Redpath Dougall..... do
Duncan Dougall.....1860
Thomas Walker,..... do
Joseph Greene,..(*a*).....1861
William McKay Wright,..... do
John Boyd,..... do
John S. Ferguson,..... do
Frederick Gore..... do
Caleb J. De Witt,..... do
William Hall,..... do
George Ross,..(*ac*l).....1862
Robert Anstruther Ramsay,[*bn*l] do
Charles G. B. Drummond,..[*n*l] do
Francis Edward Gilman,..... do
Norman William Trenholme[*ap*l]1863
Sampson Paul Robins,...[*bm*l] do
Samuel Cushing,..[*c*l]..... do
Thomas Fairbairn,[*p*]..... do
Leonidas Heber Davidson,..... do
Charles Peers Davidson,..... do
Richard John Wicksteed,..[*c*l] do
Elisha Joseph Fessenden,..... do
David Prescott Merritt,..... do
Frederick Stiles Lyman,..... do
David Ross McCord,..... do
John D. Clowe,..... do
Rev. James Davidson, (ad eun) do

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[*a*] Chapman Medallist, [*b*] Prince of Wales Medallist,
[*p*l] First Rank Honours in Mental and Moral Philosophy: [*p*] Second Rank
[*m*l] " " " in Mathematics: [*m*] Second Rank.
[*c*l] " " " in Classics: [*c*] Second Rank.
[*n*l] " " " in Natural Science: [*n*] Second Rank.

GRADUATES IN CIVIL ENGINEERING.

| | | | |
|---|---|---|---|
| Oliver Gooding, | 1858 | Arthur Ross, | 1860 |
| Christopher McLennan, | 1859 | Robert Bell, [n1] | 1861 |
| Alexander Barnston, B.A. | do | Joseph Doupe, | do |
| Robert Crawford, | do | James H. Gould, | 1862 |
| Thomas Walker, | 1860 | George Edwards, | 1863 |
| George H. Frost, | do | Maurice Gaviller, | do |
| Charles H. Kirby, | do | John Lestock Reid, | do |
| Joseph Savage, | do | | |

1860
1861
do
1862
1863
do
do

# M'Gill Normal School.

Affiliated to the University, under the control of the Superintendent of Schools and the Corporation of the University.

Principal and Associate Professor of Natural History and Agriculture —J. W. Dawson, LL.D., F.R.S., &c.

Ordinary Professors—William Henry Hicks, Esq.
Sampson Paul Robins, B.A.

Associate Professor of French, Pierre J. Darey, M.A.

Regular instruction in Drawing is given by Mr. James Duncan, in Music by Mr. R.S. Fowler, and in Elocution by Mr. John Andrew.

The Institution is intended to give a thorough training to teachers, especially for the Protestant population of Lower Canada. This end is attained by instruction and training in the Normal School itself, and by practice in the Model Schools; and the arrangements are of such a character as to afford the greatest possible facilities to Students from all parts of the Province.

Candidates for admission at the commencement of the Session, will be examined in reading, writing, the elements of grammar, arithmetic, and geography, and will be required to produce certificates of good moral character from the clergymen or ministers of religion under whose charge they have last been, and also testimony that they have attained the age of sixteen years. They will also be required to sign a pledge that they purpose to teach for three years in some public school in Lower Canada.

On complying with these conditions, pupil-teachers will be entitled to free tuition, with the use of text-books, and to an allowance not exceeding £9 per annum in aid of their board, should they be successful in obtaining the diploma at the final examination. A portion of this allowance will in future be payable to students not resident in Montreal, on their passing the semi-sessional examination at Christmas. Under the regulations subjoined, those who reside at a distance of more than ninety miles from the city of Montreal, will also be entitled to a small allowance for travelling expenses, proportionate to the distance.

The course of study in the Normal School will include all the branches of a good English education with French, special attention

being given to principles and practical applications, and to the best methods of teaching. Instruction will also be given in the art of teaching and the management of schools, in history, the elements of geometry, and algebra, natural philosophy, chemistry, natural history, agriculture, drawing and music.

In addition to religious instruction of a general Protestant character, by the Professors, arrangements will be made for special religious instruction, by ministers representing the several denominations with which the pupil-teachers may be connected.

No boarding-house is attached to the institution, but every care will be taken to ensure the comfort and good conduct of the pupil-teachers in private boarding-houses to be selected by the Principal. Board can be obtained at from $9 to $12 per month.

The building of the Normal School in Belmont Street, is large and commodious, and is provided with every modern appliance in the art of teaching.

At the close of the first year of study, pupil-teachers may apply for examination for diplomas, giving the right to teach in Elementary Schools; and after two years' study, or if found qualified at the close of the first year, they will on examination be entitled to diplomas as teachers of Model Schools. All the preceding regulations and privileges apply to female as well as to male pupil-teachers.

Students having the requisite knowledge of classics and mathematics, may obtain the Academy diploma, and a special course of study will be provided for students entering with this view.

It is also contemplated, that such of the male pupil-teachers as may be distinguished by previous education, ability and industry, shall have the further privilege of entering on the University course as free students, and proceeding to the degree of B.A. before taking the Academy diploma.

The Session commences on the 1st of September, and extends to the 1st July; and with the view of accommodating those who may be unable to enter at the commencement of the Session, or whose previous education may enable them to enter at a more advanced period, the course of study is divided into terms, as follows:

1. JUNIOR CLASS STUDYING FOR THE ELEMENTARY DIPLOMA.

FIRST TERM, from September 1st to December 20th.

*(Entrance Examination as stated above.)*

*English*—Grammar and Composition so far as to parse Syntactically, and write correctly a few short descriptive sentences—Text-Books, Bullion's

Grammar and Parker's Progressive Lessons; Reading and Spelling, Etymology, Penmanship.

*Geography*—So far as to have a good acquaintance with the Map of the World.

*History*—Outline of Sacred and Ancient History.—History of Canada. Text-Book, White and Roy.

*Art of Teaching*—Hygiene in its relation to Schools.

*Arithmetic*—Simple and Compound rules, Vulgar and Decimal Fractions, Practice and Proportion, with explanation and demonstration of rules. Text-Book, Sangster's Arithmetic.

*Algebra*—The elementary rules as in the Algebra of Chambers' Educational course.

*Geometry*—First book of Euclid.

*French*—Elements of Grammar, easy reading and translation. Text-Books, Student's companion to the study of French. De Fivas' Elementary Reader.

*Natural History*—Elements of Animal Physiology.

*Drawing*—Elements and simple outlines.

*Music*—Elements of Vocal Music.

SECOND TERM—January 1st. to April 1st.

(*Pupils entering at the commencement of this term will be expected to pass a satisfactory examination in the Subjects of the previous Term.*)

*English*—Grammar and Composition, so far as to be able to analyse simple and complex sentences, and to write correctly a short essay on a familiar subject.

*Geography*—So far as a good acquaintance with the physical features and political division of the great Continents.

*History* of England and France. Ancient History.

*Art of Teaching*—Elements of mental and moral science in their relation to teaching.

*Arithmetic*—Commission, Brokerage, Insurance, Purchase of Stocks, Interest, Exchange, Book-keeping.

*Algebra*—Simple Equations of one and two unknown quantities.

*Geometry*—Second and Third Books of Euclid.

*French*—Grammar continued, including Syntax, Reading, Translation, Oral and Written Exercises.

*Natural History*—Systematic Zoology. Text-book, Patterson's Zoology for Schools.

*Drawing*—Landscape, &c., in pencil.

*Music*—Vocal Music continued.

THIRD TERM—April 1st to July 1st.

(*Pupils entering at the commencement of this Term, will be expected to pass a satisfactory examination in the subjects of the two previous Terms.*)

*English*—Advanced Lessons in Grammar and Composition.

*Geography and History*—Advanced Lessons, with use of Globes, and recapitulation of previous parts of the course.

*Art of Teaching*—School studies and Management.

*Arithmetic*—Conclusion of Commercial Arithmetic, and General Recapitulation.

*Algebra*—Quadratic Equations and Recapitulation.

*Natural Philosophy*—Matter, Motion, and Mechanical Powers.

*French*—Advanced Grammar, Composition, Reading, and Conversation.

*Natural History, Drawing and Music*—Continued as in previous term.

*Religious Instruction* will be given throughout the Session.

## 2. SENIOR CLASS STUDYING FOR THE MODEL DIPLOMA.

*(Pupils entering this Class will be expected to pass a satisfactory examination in the subjects of the Junior Class. The Class will pursue its studies throughout the Session, without any definite division into Terms.)*

*English*—Principles of Grammar and Composition, Style. History of the English language. Lectures on English Literature. Elocution.

*Geography*—Mathematical, with Nautical Problems, Detailed Course of Political and Physical Geography.

*History*—Mediæval and Modern, with especial reference to the History of Literature, Science, and Art, and to Colonization and Commerce.

*Education*—Advanced Course of Lectures on Educational Subjects.

*Mathematics*—Logarithmic, Algebraic, and Geometric Arithmetic, Recapitulation of Commercial Arithmetic. Quadratic Equations continued. Ratios and Progressions. Theorem of Undetermined Co-efficients. Binomial and Exponential Theorems. Theory of Equations. 5th and 6th Books of Euclid. Elements of Solid Geometry and Trigonometry.

*Natural Philosophy*—Hydrostics, Pneumatics, Heat, Optics, and Electricity.

*French*—Advanced Course of French Literature, with Composition and Conversation in French. Poitevin, Grammaire Francaise.

*Natural History*—Botany, and Vegetable Physiology.

*Agricultural Chemistry*—Principles and applications to Canadian Agriculture.

*Drawing*—Figures from the Flat and from Models—Elements of Perspective.

*Music*—Instrumental Music, and continuation of Vocal Music.

*Religious Instruction*—Throughout the Session.

*Classics*—A course of study in Classics, with the view of obtaining the Academy diploma, will be provided for those pupils who may be found fitted to enter upon it.

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## EXTRACTS FROM THE REGULATIONS.

*Special Regulations for the admission of Pupil-teachers.*

Article First—Any person desirous of being admitted as a pupil-teacher, must apply to the Principal of the Normal School, who on his producing an extract from the Register of Baptisms, or other evidence, showing that he is fully sixteen years of age, with the certificate of character and conduct required by the 16th article of the general Rules and Regulations, approved by His Excellency, the Govenor General in Council, on the 22nd December, 1856, shall examine the candidate.

If upon this examination, it is found that the candidate can read and write sufficiently well, knows the rudiments of grammar in his mother tongue,—arithmetic as far as the rule of three inclusively, and has some knowledge of Geography, the Principal shall grant him a certificate.

Article Second.—The candidate having thus obtained the certificate of the Principal, shall then, (in the presence of two witnesses who, with the Principal, shall countersign the same,) sign an application in writing for admission, containing the declaration required by the 23rd general regulation. This shall be forwarded to the Superintendent of Schools, together with all the certificates and other documents required, and if the whole be found correct the Superintendent shall cause the name of the candidate to be inscribed in the register, and due notice thereof shall be given to the Principal.

Article Third.—The pupil-teachers shall state the place of their residence, and those who cannot reside with their parents, will be permitted to live in boarding-houses, but in such only as shall be specially approved of. No boarding-house having permission to board male pupil-teachers, will be permitted to receive female pupil-teachers as boarders, and *vice versa*.

Article Fourth.—Every pupil-teacher on passing the examinations, will be allowed a sum not exceeding £9, to assist in paying his board.

Article Fifth.—Every pupil residing at a distance of more than ninety miles from the city of Montreal, shall be entitled to receive an allowance for travelling expenses, proportionate to the distance, but not to exceed two pounds ten shillings *per annum*.

Article Sixth.—The total amount of allowances paid to pupil-teachers under the foregoing articles, shall not exceed £333. 6s. 8d. currency, yearly—that being the sum granted for this object; and when the whole of this amount is appropriated, such pupil-teachers as may apply for admission shall not be entitled to any portion thereof, until vacancies shall occur.

*Special Regulations for Government and Discipline.*

Article First.—Pupil-teachers guilty of drunkenness, of frequenting taverns, or entering disorderly houses or gambling houses, of keeping company with disorderly persons, or of committing any act of immorality or insubordination, shall be expelled.

Article Second.—There shall be no intercourse between the male and female pupil-teachers while in the school, or when going to, or returning from it. Teachers of one sex are strictly prohibited from visiting those of the other.

Article Third.—They are on no account to be absent from their lodgings after half-past nine o'clock in the evening.

Article Fourth.—They will be allowed to attend such lectures and public meetings only as may be considered by the Principal conducive to their moral and mental inprovement,

Article Fifth.—Proprietors of boarding-houses authorised by the Principal, shall report to him any infraction of the rules, with which they may become acquainted.

Article Sixth.—The Professors shall have the power of excluding from the lectures for a time, any student who may be inattentive to his studies or guilty of any minor infraction of the regulations.

Article Seventh.—Pupil-teachers shall be required to state, with what religious denomination they are connected, and lists of the students connected with each denomination shall be furnished to one of the ministers of such denomination resident in Montreal, with a request that he will meet weekly with that portion of the pupil-teachers, or otherwise provide for their religious instruction.

Every Thursday afternoon, after four o'clock, will be assigned for this purpose.

Article Eighth.—In addition to punctual attendance at the weekly religious instruction, each student will be required to attend public worship at his own church, at least every Sunday.

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Any additional information that may be desired, may be obtained on application to the Principal, or to either of the Professors.

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MODEL SCHOOL OF M'GILL NORMAL SCHOOL.

Teacher of Boys' School—Mr. James McGregor.

" Girls' School—

These schools can accommodate about 300 pupils, are supplied with the best furniture and apparatus, and conducted on the most modern methods of teaching. They receive pupils from the age of six and upwards, and give a thorough English education. Fee, Senior Class, 1s. 3d. per week: Intermediate, 1s.; Junior, 9d.; payable weekly.

# Time Table of McGill Normal School,
## 1863-64.

### SENIOR DIVISION.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 9<br>10<br>11 | Model School. | History.<br>Geography.<br>Grammar. | Agricul. Chemistry. | Education.<br>English Literature.<br>Composition. | Model School. | Elocution.<br>Drawing.<br>Singing. |
| 1<br>2<br>3<br>4 | Natural Philosophy.<br>Arithmetic.<br>Algebra & Writing.<br>French. | Model School. | Arithmetic.<br>Geometry & Writing.<br>Botany.<br>French. | Model School.<br><br>Religious Instruction. | Algebra.<br>Geometry.<br>General Exercise.<br>French. | |

### JUNIOR DIVISION.

| | | | | | | |
|---|---|---|---|---|---|---|
| 9<br>10<br>11 | History.<br>Geography.<br>Composition. | Model School. | English Literature.<br>Geography.<br>Grammar. | Model School. | French.<br>Grammar.<br>History. | Drawing.<br>Elocution.<br>Singing. |
| 1<br>2<br>3<br>4 | Model School.<br><br>Art of Teaching. | Arithmetic.<br>Algebra and Writing.<br>Geometry.<br>French. | Model School.<br><br>Zoology. | Arithmetic.<br>Algebra.<br>Geometry & Writing.<br>Religious Instruction. | Model School.<br><br>Chemistry. | |

Time Table of McGill Normal School,

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# EXAMINATION PAPERS

OF THE

# McGILL UNIVERSITY,

MONTREAL.

## SESSION OF 1862-63.

Montreal:
PRINTED BY JOHN LOVELL, AT THE CANADA DIRECTORY OFFICE.

1863.

# FACULTY OF ARTS.

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1862.

MONDAY, DECEMBER 15TH, 9 A.M. TO 1 P.M.

GEOMETRY.—ARITHMETIC.

FIRST YEAR.

*Examiner*,.....ALEXANDER JOHNSON, L.L.D.

1. From a given point draw a right line equal to a given finite right line.

*a*. From a given point draw a right line of given length to meet a given indefinite right line. When is a solution impossible?

2. The square described on the hypotenuse of a right angled triangle is equal to the sum of the squares described on the sides.

*a*. State and prove Pappus's extension of this theorem.

3. If a right line be divided into two parts, the square of the sum of the whole line and one part is equal to four times the rectangle under the whole and that part, together with the square of the other.

*a*. Enunciate this proposition, regarding the whole line and the first-mentioned part as two distinct lines.

4. What is the advantage in introducing the idea of negative lines in geometry? Give one or two illustrations. What is the rule by which lines are regarded as negative?

5. In equal circles, equal angles whether they be at the centres or circumferences stand upon equal arcs.

*a*. In the same circle, if any two chords be drawn intersecting at right angles, the sum of the arcs they intercept is a semi-circle.

6. From a given circle cut off a segment containing an angle equal to a given angle.

*a*. If the given angle be half a right angle and the radius be 10 feet, calculate the length of the chord of the segment.

7. Triangles having equal altitudes have to one another the same ratio as their bases.

*a.* If the triangles be also similar, they are according to another theorem, in the *duplicate* ratio of their bases. How are the two statements reconciled?

8. Find a fourth proportional to three given lines.

9. If three right lines be in continued proportion, the rectangle under the extremes is equal to the square of the mean.

*a.* If at one extremity of the hypotenuse of a right angled triangle, a perpendicular be erected meeting the opposite side produced the square of the hypotenuse will be equal to the rectangle under the side and the line composed of the side and produced part.

10. Describe a figure similar to a given one and equal to another.

*E. g.* Describe a regular pentagon whose area shall be 10 square yards.

11. Add together $2\frac{1}{2} + \frac{3}{4} + 7\frac{5}{7}$; subtract from the sum the half of $\frac{2}{5}$; and divide the remainder by 6.

12. The total value of the Imports of Canada for 1861 was $43,054,836, and the total duty on them was $4,768,192.89. What was the average rate per cent levied.

13. Find the interest on $19,876.54 for 3 years and 5 months at $4\frac{1}{2}$ per cent.

Convert the result into pounds, shillings and pence currency.

14. Extract the square root of 2.

15. Express 305 yards 2 ft. 5 inches as a decimal of a mile, and verify the result by reducing the decimal to a vulgar fraction, and finding the value of that fraction of a mile.

16. Calculate the ratio of the English mile to the French kilomètre, the kilomètre being equal to 1000 mètres, the mètre = 39.371 inches.

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1862.

MONDAY, Dec. 15,—9 A. M. TO 1 P. M.

TRIGONOMETRY.—ALGEBRA.—GEOMETRY.

SECOND YEAR.

*Examiner*, .....ALEXANDER JOHNSON, LL.D.

1. From a point on the circumference of a circular enclosure whose diameter is 100 feet, the angle which two entrances subtend is found to be 35° 10′ 40″, find their distance from one another.

2. From the top and base of a building 60 feet high situated on the summit of a hill, the angles of depression of an object in the plain are observed to be 50° 30′ and 41° 44′ 10″ respectively; find the height of the hill.

3. Find the utmost distance at which a man, the height of whose eye is 5 feet 8 inches, could see a mountain 2000 feet high, (not taking refraction into account,) the man being on the surface of the earth.

4. Prove $\cos \frac{1}{2} A = \sqrt{\frac{s(s-a)}{bc}}$

5. Prove $\tan (A \pm B) = \frac{\tan A \pm \tan B}{1 \pm \tan A \tan B}$

If $A + B = \frac{\pi}{4}$ and $\tan B = \frac{1}{3}$; calculate $\tan A$.

6. State the rule by which the signs of the Trigonometrical functions of angles are determined, and tabulate the sines, cosines, and tangents of $\frac{\pi}{2}$, $\pi$, $\frac{3\pi}{2}$, and $2\pi$.

7. Prove $\sin 2A = 2 \sin A \cos A$; $\cos 2A = 1 - 2 \sin^2 A$.

8. Solve the equations

$$\frac{2x-3}{4} - \frac{1}{1-x} = \frac{2}{3}$$

$$\tfrac{3}{5}x - \tfrac{1}{2}(x+5) - \frac{\tfrac{4}{3}x - \tfrac{2}{5}}{\tfrac{3}{7}} = 2\tfrac{1}{2}$$

$$\frac{x}{5} + \frac{x}{6} + \frac{x}{8} = 2.$$

9. Find the Greatest Common Measure of $x^3 - 6x^2 + 11x - 12$ and $4x^3 - 9x^2 + 14x - 3$.

10. Reduce to its simplest form $\dfrac{\tfrac{4}{5}(x-3) + \tfrac{2}{3}y}{\tfrac{4}{5}x + y \over \tfrac{3}{4}x + 4(x-5)}$

11. Find two numbers whose sum shall be 29 and product 198.

12. A train starts from one end of a railway 175 miles long and travels at the rate of 35 miles an hour; 20 minutes later, another train, travelling 40 miles an hour, starts from the other end; where will they meet?

13. An equilateral triangle, described on the hypothenuse of a right-angled triangle is equal to the sum of the eqnilateral triangles described on the sides.

14. If four right lines be proportional, the similar rectilinear figures similarly described on them will be also proportional.

15. If two triangles have the angles in the one respectively equal to the angles in the other, the sides about the equal angles are proportional and the sides opposite them are homologous.

*a.* A right line drawn from the vertex of a triangle to the base cuts every parallel to the base in segments which are in the same ratio. Show that this is true whether the parallel be drawn above or below the vertex, and whether the line from vertex to base be drawn inside or outside the triangle.

16. The bisector of the vertical angle of a triangle cuts the base in segments which have the same ratio as the conterminous sides.

*a.* Show that this is true also of the bisector of the external angle at the vertex, and that when both bisectors are drawn the base is cut harmonically.

17. Two intersecting chords of a circle, have the rectangle under their segments equal, whether the chords intersect outside or inside the circle.

18. On a given right line construct a rectangle of given area.

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1862.

MONDAY, DECEMBER 15. — 9 A. M. TO 1 P. M.

MECHANICS.—HYDROSTATICS.

THIRD YEAR.

*Examiner*,..... ALEXANDER JOHNSON, LL.D.

1. Define a Statical Force. State and explain the principles by which Problems in Statics are reduced to Problems in Geometry.

2. Define the moment of a force with respect to a point. State the ordinary rule for distinguishing moments as positive or negative.

Prove that if two forces meet in a point, their moments with respect to any point on their resultant are equal and opposite.

3. Find the resultant of two parallel forces, (1) when the forces act in the same direction, (2) when in opposite directions.

Solve the problem, when there are $n$ forces, acting in the same direction or not.

4. What is the cause of the weight of bodies? Is it a self-evident proposition that the weight of a body is equal to the sum of the weights of all its parts. If not, prove it.

A bar of uniform thickness weighs 10 lbs. and is 5 feet long; weights of 9 lbs. and 5 lbs. are suspended from its extremities: on what point will it balance?

5. In the screw find the ratio of the Power to the Resistance parallel to the axis.

6. A force equal to 3 lbs. produces in one second a velocity of 0.317 feet in a given body. Find its weight.

7. The velocity acquired by a body in running down an inclined plane is equal to the velocity acquired in falling down the height of the plane.

8. A stone is projected vertically upwards with a velocity of 150 feet per second; and, one second after, another stone is projected with a velocity of 200 feet per second. Where will the stones meet?

9. If a body describe uniformly the two sides of an isoceles triangle determine the velocity impressed at the vertex in magnitude and direction; and thence deduce an expression for the centrifugal force on a unit particle describing a circle uniformly.

10. Assuming the expression for the time of oscillation of the simple pendulum, determine the change produced in a day on the oscillations of a second's pendulum when removed from the surface of the earth to a height of one mile.

11. State the fundamental principle of Hydrostatics.

12. If two pistons having areas of 5 square inches, and 2 square feet respectively be inserted in a closed vessel filled with liquid, and a pressure of 15 lbs. be applied to the smaller, determine the pressure on the larger.

13. If a cubical vessel be filled with liquid, calculate the ratio of the pressures against the bottom and one of the sides.

14. Define the centre of pressure.

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

### CHRISTMAS EXAMINATIONS, 1862.

MONDAY, DECEMBER 15TH,—FROM 2½ TO 4 P.M.

ELECTRICITY.

THIRD AND FOURTH YEARS.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. State the hypotheses of electricity, and give the grounds of the rejection of the one-fluid hypothesis.

2. Arrange the following substances in the order of their conducting power,—smoke, paper, silk, gold, charcoal, earth, dry wood, sulphur.

3. State the effect of an increase of temperature on the conducting power of different bodies, giving examples.

4. If a conducting body, whose superficial magnitude is $S$, be charged with a quantity of electricity denoted by $E$, and be brought into contact with another inuslated conductor, whose superficial magnitude is $S'$, determine the quantities of electricity after contact.

*E.G.* If the bodies be spheres whose radii are 4 inches and 1 inch respectively, determine the ratio of the quantities of electricity after contact.

5. Describe fully the plate electrical machine, and account for its action.

6. Give an account of the discovery of the Leyden jar, and explain its action fully. How and why may it be slowly discharged ?

7. Describe Coulomb's experiments for determining the laws of electricity and their results.

# Faculty of Arts.

## McGILL COLLEGE MONTREAL.

### CHRISTMAS EXAMINATIONS, 1862.

MONDAY, DECEMBER 15TH.—9 A. M. TO 1 P. M.

ASTRONOMY.—OPTICS.—MECHANICS.—HYDROSTATICS.

FOURTH YEAR.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. Prove that the altitude of the pole at any place is equal to the latitude of the place, and state how this proposition may be used to test the sphericity of the earth. In what manner has it been proved that the earth is not exactly a sphere, and how is its actual shape accounted for?

*a*. If the length of a degree of the meridian be 69.05 miles, calculate the diameter of the earth regarded as a sphere.

2. Explain the manner in which the following particulars with regard to the sun have been ascertained:

*a*. Its distance from the earth.
*β*. Its diameter.
*γ*. Its mass.

3. Describe such methods as you are acquainted with for determining the longitude; stating the corrections that must be applied to any observations.

4. Draw a diagram of such a portion of *apparent* path of some one Planet as will contain its most remarkable points, and then explain the manner in which this apparent path may be accounted for by the combined motions of the Earth and Planet.

Show that the periodic time of Mars may be found from the formula $M = \frac{T\,E}{T-E}$ $E$ being the periodic time of the earth, and $T$ the interval from opposition to opposition.

5. Describe the Gregorian telescope, and determine the magnifying power of one in which the focal length of speculum is 4 feet, and of eye-glass is $\frac{1}{2}$ inch, the secondary speculum being of 3 inches focal length.

In what respect does the Cassegrainian differ from the Gregorian in construction, and what are the differences in the practical results.

6. State, and prove, the principle of Hadley's Sextant, and describe the instrument.

If there be any error in the position of the zero of the scale how may correction be made.

7. Explain the total reflexion of light, and calculate the angle of total reflexion for water (refractive index $= \frac{4}{3}$).

8. A pendulum which makes 86,400 vibrations in a day at the equator, makes 86,535 when transported to London, find what will be the weight at London of a body which weighs 10 lbs at the equator.

9. A body weighing 16.4 lbs. is drawn up a smooth inclined plane by the perpendicular descent of a weight of 24 lbs. attached to it by a fine string passing over the vertex of the plane; the length of the plane is 18 feet, and its angle of inclination is 30°, find the greatest vertical height above the horizontal plane, to which the body will ascend if the string be cut on its arrival at the top of the inclined plane.

10. If a body be kept at rest on an inclined plane determine the ratio of the power to the resistance

$\alpha$. When the direction of the Power is parallel to the length.

$\beta$. When it is parallel to the base.

11. Describe the Danish Balance and the Roman Steelyard and the manner of graduating each.

12. The weight of a globe in air is $W$, and in water $w$; find its diameter, $s$ and $a$ being the specific gravities of the water and air.

13. Determine the magnitude of the force which causes the descent of the liquid in the siphon.

14. If the weight of 100 cubic inches of dry air at 60° Fah. and pressure 30 inches be 31.0117 grains, prove that if the temperature and pressure of a given volume of air be $t$ and $p$ respectively, then

$$W = \frac{5.375\ Vp}{460 + t}$$

You may assume the formula derived from Dalton and Gay—Lussac's law.

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

### CHRISTMAS EXAMINATIONS, 1862.

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WEDNESDAY, 17TH DECEMBER, 9 TO 12 A.M.

ENGLISH LITERATURE.

FIRST YEAR.

*Examiner*,.....Rev. Dr. Leach.

1. Over what portions of Europe is the Celtic race supposed to have extended, and what languages have proceeded from the Celtic source?

2. Mention some of the remains in England of the original Celtic, found in proper names and common names.

3. What is supposed to have been the original seat of the Gothic tribes, and over what portions of Europe did they extend?

4. Enumerate the languages that have proceeded from the original tongues of the Gothic tribes.

5. In what subdivision of the Gothic stock has the most ancient specimen of a Gothic tongue been preserved? Give some account of the particular tribe by whom that tongue was spoken, and the history of the specimen referred to.

6. State the most characteristic difference between the Teutonic and Scandinavian tongues, and mention the different dialects of the latter.

7. How long did the Romans hold dominion in Britain?

8. How long, after the departure of the Romans, were the Britons independent?

9. Over what period did the power of the Saxons extend, and how long did the power of the Danes continue?

10. Proportionately, what part of England was occupied by the Danes?

11. Give some estimate of the extent and value of the ancient literature of the Danes, as compared with that of the Anglo-Saxons.

12. Give an account of the modes and periods of the introduction of the Latin element into the English language.

13. Enumerate some of the changes of the standard Anglo-Saxon, the preponderance of which constitutes what is termed Semi-Saxon.

14. Enumerate some of the forms, the preponderance of which constitutes what is termed Old English.

15. Decline the demonstrative pronoun and article, se, seó, thæt, and mark in italics the words retained in the present English.

16. Explain etymologically the words "there" and "where," "these" and "those."

17. What, according to Webb, was the original signification of "I," "thou," and "he"?

18. What is supposed to be the original signification of the comparative form in er, and the superlative in est?

19. Show that the word "no" may be considered an article.

20. What was originally the signification of the English after-settings —"ship," "shire," "dom," "hood"?

21. Of what parts of speech are the following words ending in -ing: "My singing bird,"—"I like singing,"—"I went a hunting,"—"I was hunting"?

22. From what kinds of words are other words formed?

23. In English, how many forms are there of the Infinitive mood?

24. Give explicitly the meaning of the 1st, 2nd, and 3rd persons.

25. What is the meaning of moods?—and what true moods are there in English?

10. Proportionately, what part of English was borrowed of the Danes?

11. Give some estimate of the extent and value of the ancient literature of the Danes, as compared with that of the Anglo-Saxons.

12. Give an account of the modes and periods of the introduction of the Latin element into the English language.

13. Mention some of the changes of the verb that Anglo-Saxon, the predecessor of which cognomen what is termed Middle-Saxon.

14. Enumerate some of the forms, the prepositive of which constitutes what is termed Old English.

15. Decline the demonstrative-pronoun and article, as, seo, that, and mark in full the words retained in the present English.

16. Explain etymologically the words "there" and "where," "these" and "those."

17. What, according to Webb, was the original signification of "I," "thou," and "he"?

18. What is supposed to be the original signification of the comparative form in er, and the superlative in est?

19. Show that the word "no" may be considered an article.

20. What was originally the signification of the English affix-ending —"ship," "dom," "hood"?

21. Of what parts of speech are the following words ending in -ing: "My singing bird"—"I like singing"—"I went a hunting"—"I was hunting"?

22. From what kinds of words are other words formed?

23. In English, how many forms are there of the "infinitive mood"?

24. Give explicitly the meaning of the 1st, 2nd and 3rd persons.

25. What is the meaning of moods?—and what five moods are there in English?

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1862.

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WEDNESDAY, 17TH DECEMBER, 9 TO 12 A.M.

LOGIC.

SECOND YEAR.

*Examiner*,.....Rev. DR. LEACH.

1. Show that Language is analytic, and that the same language is more or less analytic as literature and refinement increase?

2. Explain the function of Language in preserving and recording thoughts for future use.

3. Explain the distinction between symbolical and intuitive conceptions, and how names serve to abbreviate the process of thought.

4. Explain, according to the analysis given, what are substantives, adjectives, verbs, prepositions.

5. State the distinction between *a priori* and *a posteriori* truths, and show that our knowledge of things is knowledge of things and mind co-operating together.

6. Explain what are meant by presentations clear and obscure,—cognitions confused and distinct,—adequate and inadequate.

7. State how conceptions are formed, and explain what are meant by Higher and Lower conceptions.

8. Explain the two capacities—Extension and Intension—of a conception, and the processes of Abstraction and Determination.

9. Explain what are meant by Logical Division and Definition.

10. What are specific difference and co-ordinate species?

11. When is a conception said to be complete and adequate?

12. What are essential in the Definition of a Species?

13. Explain the cases of definitions arising from—1. Resolution; 2. Composition; 3. Division; 4. Colligation; 5. Change of Symbol; 6. Casual Substitution.

14. What are—Categorical Judgments, Hypothetical Disjunctives, Categorical Substitutives, and Attributives?

15. What is the difference in nature between these two hypotheticals:

If x is y, x is z.
If x is y, s is z.

16. State and explain the kinds of Opposition that subsist between the following pairs of judgments:—e and o, a and o, i and y, e and i, a and i, e and y, o and y.

17. What is meant by Immediate Inference? and explain (giving at the same time concrete examples) the different means of Immediate Inference,—1. By Privative Conceptions; 2. By added Determinants; 3. By Complex Conceptions; 4. Interpretation; 5. By a Disjunctive Judgment; 6. By the Sum of several Predicates.

18. State the forms of an Extensive Syllogism and an Intensive Syllogism, and give concrete examples.

19. Explain the difference between an Analytic and a Synthetic Syllogism, and give an example of the former kind.

20. Give the Converses, respectively, of the following judgments,—a, e, i, o, u, y.

21. What is meant by the "worse relation"?

22. What are meant by "Moods of Syllogisms"?

23. Show that the distinction of the three Figures is a natural distinction.

24. What objection lies against the process of Reduction?

25. Give the universal rules of the Syllogism, and show what fallacies result from the violation of them.

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1882.

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### WEDNESDAY, 13TH DECEMBER, 9 TO 12 A.M.

### RHETORIC.

1. In Testimony, many witnesses must have more weight than one or a few. In the ordinary, or their weight what necessary condition is often overlooked?

2. Why is undesigned testimony regarded as valuable?

3. What is meant by Negative Testimony?

4. Show that antecedent improbability may sometimes add to the credibility of witnesses.

5. What is meant by the charges against any proposition?

6. In argument from Example, besides conducing in each case, what differences or resemblances are intrinsically the greatest, there is another material consideration—What?

7. Show how fictitious examples may be convincing?

8. Show that the onus probandi may sometimes be transferred, and that a presumption on one side is not always an advantage.

9. Show that example is not excluded from the proof of matters of opinion.

10. What other use of examples is there besides that of proof?

11. In what order ought the argument from Example, and the a priori argument to be employed? State the reasons given.

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

### CHRISTMAS EXAMINATIONS, 1862.

WEDNESDAY, 17TH DECEMBER, 9 TO 12 A.M.

RHETORIC.

THIRD YEAR.

*Examiner*,.....Rev. Dr. Leach.

1. In Testimony, many witnesses must have more weight than one or a few. In the estimation of their weight what necessary condition is often overlooked?

2. Why is undesigned testimony regarded as valuable?

3. What is meant by Negative Testimony?

4. Show that antecedent improbability may sometimes add to the credibility of witnesses.

5. What is meant by the chances against any supposition?

6. In arguments from Example, besides considering in each case, what differences or resemblances are intrinsically the greatest, there is another material consideration—What?

7. Show how fictitious examples may be convincing?

8. Show that the *onus probandi* may sometimes be transferred, and that a presumption on one side is not always an advantage.

9. Show that example is not excluded from the proof of matters of opinion.

10. What other use of examples is there besides that of proof?

11. In what order ought the argument from Example, and the a *priori* argument to be employed? State the reasons given.

12. Show the advantage of the order recommended in regard to the statement of the evidences of our religion.

13. What are the determining considerations for the previous statement of "the question" or of "the reasons?"

14. What disadvantage is apt to attend "the waiving of a question?" How may the disadvantage be counteracted? To what sophistical use is the waiving of the question liable?

15. Explain what is meant by Direct and Indirect Refutation; and enumerate, according to the statement given, the several points to be attended to in the Refutation of objections.

16. What is meant by "Proving too much?"

17. Show how an Indirect argument may be altered in form, so as to be stated in the Direct mode.

18. Explain the form of Argument employed by Butler in his Analogy, and that of Burke, in his Defence of National Society.

19. State some of the disadvantages to which the Indirect mode of Argumentation is liable.

20. Show how a proposition may be *satisfactorily* established, though unanswerable arguments may exist on both sides.

21. Explain the fallacy, when in refutation, counter objections are urged against something else which is taken for granted to be, though it is not, the *only alternative*.

22. What ought to be done when the objections urged are *decisive*? And what is sometimes *sophistically* done?

23. What [illegible]rs arise from writing too forcibly, and in what cases is the caution given unnecessary?

12. Show the advantage of the order suggested in regard to the statement of the evidences of our religion.

13. What are the distinguishing explanations for the previous statement of "the question" or "the reasons"?

14. What disadvantage is apt to attend "the waiving of a question?" How may the disadvantage be counteracted? To what sophistical use is the waiving of the question liable?

15. Explain what is meant by Direct and Indirect Refutation; and enumerate, according to the statement given, the several points to be attended to in the Refutation of objections.

16. What is meant by "Proving too much?"

17. Show how an Indirect argument may be altered in form, so as to be stated in the Direct mode.

18. Explain the term of Argument employed by Butler in his Analogy, and that of Burke, in his Defence of National Society.

19. State some of the disadvantages to which the Indirect mode of Argumentation is liable.

20. Show how a proposition may be satisfactorily established, though unanswerable arguments may exist on both sides.

21. Explain the fallacy, when in refutation, counter objections are urged against something else which is taken for granted to be, though it is not, the only alternative.

22. What ought to be done when the objections urged are decisive? And what is sometimes unfortunately done?

23. What dangers arise from writing too forcibly, and in what cases is the caution given unnecessary?

# Faculty of Arts.

## McGILL COLLEGE MONTREAL.

### CHRISTMAS EXAMINATIONS, 1862.

THURSDAY, 18TH DECEMBER, 9 A.M. TO 1. P.M.

### LATIN.—CICERO :—ORATIONS AGAINST CATILINE.

FIRST YEAR.

*Examiner*,.....REV. PROFESSOR CORNISH, B.A.

1. Translate, Orat. I. Chap. 3.

2. *a.* "*Discessu ceterorum :*"—Give the other modes of expression equivalent to this in Latin. *b.* "*In ante diem V. Kalendas Novembris :*"—Explain the construction of this, and state to what part of speech 'Novembris' belongs, and what case it is. *c.* Give the dates occurring in the above Chap. 3 according to our mode of reckoning, and express in Latin, according to the Roman method, *December* 18th, *March* 7th.

3. Write a sketch of the public life of Cicero, mentioning particularly the principal events and personages of the conspiracy of Catiline. Give an account of the character of Catiline as it is described by Cicero and Sallust.

4. Translate, Orat. II. Chap. 6.

5. Translate, and explain the meaning of the words printed in italics :—

*a.* "Cum *hoste* bellum *justum* geremus."
*b.* "Ex rusticis *decoctoribus :—vadimonia* deserere."
*c.* "Testamentorum *subjector, circumscriptor*."
*d.* "Multa sæcula *propagarit* reipublicæ."
*e.* "Rem omnem *detuli*." * * *retuli.*
*f.* "*Tabulæ novæ* verum *auctionariæ*."
*g.* "*Manicatis* ac *talaribus tunicis* non *togis*."

6. Translate, Orat. III. Chap. 4.

7. *a.* What is meant by the expression *publicam fidem?* and by *ex fatis Sibyllinis?* *b.* State briefly what you know of the historical personages and events which are alluded to in Chap. 4.

8. Explain the composition and derivation of the following words, giving also the cognate forms in Greek and English of such as have them:—satellitem, sodalem, consul, prostratus, ignotus, meditere, inusta, pulvinaria, supplicatio, acrem, adipes, exterminari, infitiatores, propagarit, hesternus, mactari, provincia.

9. Translate, Orat. IV. Chap. 11.

10. In what places and before whom were these four orations respectively delivered? Give a brief narrative of the events that occurred during the intervals of their delivery. What was the fate of the leading conspirators?

11. State the difference in meaning between;—*promittere* and *polliceri; simulare* and *dissimulare; homo* and *vir; sanguis* and *cruor; amittere* and *perdere; quotidie* and *indies; queo* and *possum; debeo* and *oportet; contingere* and *accidere; Cæsaris* similis and *Cæsari* similis.

12. State the difference in meaning between; prædĭcas and prædīcas; abutĕre and abutēre; impendēre and impendĕre; oblīti and oblĭti; occīdit and occĭdit; permănent and permānent; fŭgēre and fŭgĕre, and state what part of the verb each is.

13. What is the quantity of the *ultimate* of the possessive pronouns in such expressions as mea, vestra, nostra interest and refert? what case is the pronoun? Analyse and explain the expression.

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

### CHRISTMAS EXAMINATIONS, 1862.

THURSDAY, DECEMBER 18TH, 9 A.M. TO 1 P.M.

### LATIN.—HORACE :—EPISTLES AND ARS POETICA.

SECOND YEAR.

*Examiner*,..... REV. PROFESSOR CORNISH.

1. Translate, Bk. I., Ep. i. vss. 70–93.

2. *a.* What writings had Horace published before his Epistles? Give the probable date of the composition of this First Epistle. *b.* State what you know of the life and character of the person to whom it is addressed. *c.* Write a sketch of the life of Horace; name the most celebrated of his contemporaries in literature and politics.

2. Write explanatory notes, grammatical and historical, on the following phrases;—

*a.* "*Magna* coronari *Olympia.*"
*b.* "*Excipiant* quos *in vivaria* mittant."
*c.* "Multis *occulto* crescit res *fenore.*"
*d.* "Scripta *Palatinus* recepit *Apollo.*"
*e.* "Et *mundus victus* non deficiente *crumena.*"
*f.* "Vina iterum Tauro *diffusa.*"
*g.* "Quotus esse velis rescribe."

4. Translate, Bk. I., Ep. vii. vss. 46–71.

5. *a.* "*Octavam circiter horam*":—what hour of the day was this, according to our mode of reckoning? *b.* In what parts of Rome were the Carinæ and the Forum? *c.* "dic *ad cœnam* veniat":—to what modern meal does the *cœna* correspond? Give a general account, with their proper names, of the meals among the Greeks and Romans. *d. Menam:*

—for what is this a contraction? *e. septem sestertia*:—how many *sesterces?* State the value (1) of the *sestertius* and (2) of the *sestertium.*

6. Translate, Bk. I., Ep. xx., vss. 1–10.

7. *a.* Explain the allusions contained in vss. 1, 2, 3, 13, 19, 20, 23, 26, and 27. *b.* "*imi Derisor lecti*";—explain this, and point out the manner in which a Roman banquet was arranged.

8. Translate, Bk. II., Ep. ii., vss. 158–174.

9. Write a short account of the principal dramatic writers among the Romans. *b.* Explain the following terms;—*socci, cothurni, persona, palla; tragœdia, comœdia; prætextæ, togatæ; crepidatæ, palliatæ.*

10. Translate, Ars Poetica:—*a.* vss. 136–152. *b.* vss. 295–308.

11. *a.* What is meant by "*scriptor cyclicus*"? Of what are vss. 141 and 142 a translation? *b.* "*tribus Anticyris*":—how do you explain this passage? Were there *three* places of this name? Where were they?

12. Give the grammatical construction of;—

*a.* "Est quadam prodire tenus si non datur ultra."
*b.* "Si curatus inæquali tonsore capillos Occurri."
*c.* "Valeat possessor oportet si rebus bene cogitat uti."
*d.* "At vos * * * * votiva juvenca"; Bk. I. iii., 32, &c.
*e.* "Quodsi bruma nives Albanis illinet agris."
*f.* "Sic ignovisse putato me tibi si cœnas mecum."
*g.* "Jus imperiumque Phraates Cæsaris accepit genibus minor."

13. *a.* Give the derivation of the following words:—salebras, viatica, planum, catellam, catellus, cheragra, momenta, interpres, famulus, austera, orichalco, suppellex. *b.* Give instances of words in Horace that are ἅπαξ λεγόμενα.

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

### CHRISTMAS EXAMINATIONS, 1862.

THURSDAY, 18TH DECEMBER, 9 A.M. TO 1 P.M.

LATIN.—JUVENAL:—SATIRES I., III., VIII., & X.

THIRD YEAR.

*Examiner*,.....REV. PROFESSOR CORNISH, B. A.

1. Translate, Sat. I., vss. 81—106.

2. *a.* Narrate the legend alluded to in vss. 81—84. *b.* Give the different interpretations of "*Major avaritiæ patuit sinus:*" "*alea quando hos animos:*" "*Ille tamen faciem prius inspicit et trepidat.*"

3. *a.* What kind of poetry was first cultivated with success by the Romans? What account does Horace give of its origin? *b.* "Unde illa priorum scribendi simplicitas;"—Give an account of the writers here alluded to as *priorum*, and mention those who were most eminent. *c.* Write a sketch of the life of Juvenal and point out his peculiar characteristics and merits as a writer of Satire.

4. Translate, with explanatory notes of the words and expressions in italics:—

*a.* "Per quem magnus equos *Aruncæ* flexit *alumnus*."
*b.* "Tyrias *humero revocante* lacernas."
*c.* "Hæc non credam *Venusina* digna *lucerna*."
*d.* "Quum jam *sexta cervice* feratur."
*e.* "Sed *quinque tabernæ quadringenta* parant."
*f.* "Nunc *sportula* prius *** *turbæ* rapienda *togatæ*."

What is the primary meaning of the word *sportula* and in what different senses is it used?

5. Translate, Satire III.;—*a.* vss. 114–125. *b.* vss. 302–313.

6. *a.* Give the derivation of the following words with an account of the vocations which they severally represent :—

"Grammaticus, rhetor, geometres, pictor, aliptes,

"Augur, schœnobates, medicus, magus."

*b.* In what respects do you conceive the introduction of Grecian tastes, arts, and manners proved to be beneficial or injurious to the character and morals of the Romans? *c.* In vs. 170 what is the other reading for *cululo*? "*proavorum atavos*:"—how many generations of ancestors?

7. Translate, Sat. VIII.; *a.* vss. 163–182. *b.* vss. 231–244.

8. *a.* For "Mitte Ostia" some edd. read "mitte ostia:"—translate and explain the latter. How do you explain *Thermarum calices inscriptaque lintea? citharœdo principe*:—who was he? *b.* Mention briefly the historical personages and events alluded to in vss. 231–268.

9. Translate, Sat. X.;—*a.* vss. 99–113. *b.* vss. 147–167.

10. *a.* "Principis angusta Caprearum in rupe sedentis cum grege Chaldæo:—What emperor and event are here alluded to? Give the other reading for 'angusta'. *Potestas* v. 100:—In what sense is this word here used? In what form, and with what meaning is it still used in Italy? *b.* What is the quantity of the ultimate of *perit* in vs. 118, and why is it so? Give the different interpretations of "*madidis* *** *Sostratus alis*. *c.* State the subject, and mode of treatment of Sat. X. By what English writer, and in what poem, has it been imitated.

11. Give the derivation of the following words:—cœnacula, vascula, pusilli, constratum, stemma, viduas, naulum, syrma, farrago, cophinus, fercula.

12. Give the situation of: Minturnæ, Tabraca, Seripho, Ulubræ, Capuæ, Leucas, Gabii.

# Faculty of Arts.

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## CHRISTMAS EXAMINATIONS, 1862.

FRIDAY, DECEMBER 19TH, 9 A.M. TO 1 P.M.

FIRST YEAR.

### GREEK.—XENOPHON:—ANABASIS, BOOK I.

*Examiner*,..... REV. PROFESSOR CORNISH, B.A.

1. Translate Chap. II., §§ 15–18 inclusive.

2. *a.* Explain the force and usage of the preposition ἐξ in such expressions as *οἱ ἐξ ἐκείνου; οἱ ἐκ τῆς πόλεως.* What preposition is used in Latin in a manner analogous to this? *b.* State the exact difference in meaning between *κατ' ἴλας* and *κατὰ τάξεις.* *c.* Instead of *τὰς ἀσπίδας ἐκκεκαθαρμένας*, some edd. read *ἐκκεκαλυμμένας*:—explain the meaning of the latter reading.

3. Translate and give the force of the participle ὡς in the following expressions:—*διαβάλλει ὡς ἐπιβουλεύοι; ὡς πράγματα παρεχόντων; ὡς ἀποκτενῶν; ὡς πολεμεῖν εἴησαν; ἀπέθανον ὡς πεντακόσιοι; ὡς μάλιστα ἐδύνατο.*

4. Translate:—*a.* Chap. IV. §§ 4 and 5. *b.* Chap. III. §§ 7 and 8.

5. *a.* Explain, by drawing a sketch, the geographical and topographical positions of extract *a* in question 4. *b.* Explain the syntax of the following expressions:—*ἦσαν δὲ ταῦτα δύο τείχη. Κέρσος ὄνομα. εὖρος πλέθρου.* *c.* State the fundamental signification of *παρὰ* and give its exact meaning with the several oblique cases in extract *b*.

6. Translate:—*a.* Chap. V. § 10. *b.* Chap. VI. §§ 9–11 inclusive.

7. State the Voice, Tense, Mood, and Person, and give the Present Infinitive, of the following verbs which are found in this book:—*ἐπίμπλασαν, συνῆγον, συνέσπων, ἵεντο, εἴσεται, ἥσθη, ἵσθετο, παροῦσιν, ἀπόφηναι, εἰσηνέχθη, ἑλῶντα.*

8. *a.* Explain the forms πλείους and μείζους, *b.* How is the use of the Acc. Plu. in the expression περὶ μέσας νύκτας to be explained? *c.* How do you account for the Genitive in the expression ἴεναι τοῦ πρόσω? *d.* What class of Verbs in Greek take the dependent verb in the Participial instead of the Infinitive Mood?

9. Translate:—*a.* Chap. VIII., §§ 8 and 9. *b.* Chap. X., §§ 14–16 inclusive.

10. *a.* What do you supply with the word δείλη? What is the exact time of day here meant by it? How does Homer divide the day? What is the probable derivation of the word δείλη? *b.* Explain, by a sketch, the position of the forces of Cyrus in the battle of Cunaxa, as described in Chap. VIII., §§ 4–6. *c.* Give the different significations of the expression τίθεσθαι τὰ ὅπλα.

11. Write a sketch of the life of Cyrus the Younger. Name the date of the Anabasis, and also the principal towns and rivers, (with the modern names of such as you know,) on the line of march.

12. Explain the distinction between the ὁπλῖται, πελτασταί, and ψιλοί, and give a general account of their armour.

13. Decline, with Accents, the following Nouns:—πρᾶγμα, ὕδωρ, στρατιώτης, οἶνος, θάνατος, σταθμός, πόλις.

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# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1862.

FRIDAY, DECEMBER 19TH, 9 A.M. TO 1 P.M.

SECOND YEAR.

## GREEK.—HERODOTUS:—BOOK I.

*Examiner*,..... REV. PROFESSOR CORNISH, B.A.

1. Translate Chap. VI.

2. Write a short sketch of the life of Herodotus, mentioning particularly the cause of his leaving his native country, the principal countries through which he travelled, and the chief grounds on which his fame as an Historian rests. Name the leading writers of history previous to his time.

3. *a.* Give an account of the several Lydian dynasties, and mention the names and dates of those kings that composed the last. *b.* How many times, and by whom on each occasion, was Sardis taken? *c.* From what country did the Cimmerii come? Assign the date of their invasion of Asia Minor.

4. Translate Chaps. XX. and XXI.

5. *a.* Give the modern name of the HALYS:—describe its course, and show whether the description given in Chap. LXXII. be correct or not. *b.* Give a sketch of the western coast of Asia Minor, dividing it into the parts severally occupied by the Greek races, and marking the situations of the principal cities. *c.* By what names was the BLACK SEA designated by the Ancients? Why were they given? What does Herodotus mean by ἡ Ἐρυθρὴ θαλάσση? and by ἥδε ἡ θαλάσση?

6. Translate Chap. LXXIX.

7. *a.* Explain the form Σάρδις in the above extract, and give the Latin translation of it. *b.* ὥς οἱ παρὰ δόξαν * * ἥ ὡς αὐτὸς κατεδόκεε;—how do you construe and explain this clause?

8. Translate Chap. CX.

9. Explain the grammatical construction of the following :—

*a.* Chap. 3 :—*τοὺς δὲ προισχομένων * * * δίκας γένεσθαι.*

*b.* Chap. 5 :—*τὸν δὲ οἶδα αὐτὸς * * * τοῦτον σημῆνας.*

*c.* Chap. 53 :—*εἰ στρατεύηται * * * προσθέοιτο σύμμαχον.*

*d.* Chap. 59 :—*ὁ δὲ δῆμος * * * ἄνδρας τούτους.*

*e.* Chap. 74 :—*διαφέρουσι δέ σφι * * * νύκτα γένεσθαι.*

*f.* Chap. 110 :—*καὶ αὐτίκα * * * οὔρεα θηριωδέστατα.*

10. *a.* Explain the force of the preposition *ἐπὶ* in such expressions as : —*ἐπὶ θανάτῳ*, C. 109, and *ἐπὶ δηλήσει*, C. 41 ; and also of *πρὸς* in the expression *ἐλπίσας πρὸς ἑωυτοῦ, κ. τ. λ.*, C. 75. *b.* Parse the following verbs :—*ἠνθισμένοι, ἐξημεληκότα, συνεπεπτώκεε, ἀποθορόντες, διετετάχατο, ἀπελοίατο, ἀποβαλέεις, εἰσάμενοι, προηδέατο, προσίετο, ἐπιέσται.* *c.* Translate and explain each of the readings ;—*χαλκὸν δ'ἐπιέσται* and *χαλκὸς δ'ἐπιέσται*, and show why the former should be preferred.

11. *a.* Mention some of the leading characteristics of the style and language of Herodotus. *b.* Turn the following words into Attic :—*ἀπόδειξις, ἀνθρωπήϊος, νηῦς, τέῳ, τέοισι, οἰκειεῦνται, ἐποίεε, ἑστάμεναι, ἄν, ἀγγελέων, ἑωυτοῦ.* *c.* Turn the following into Ionic :—*ἀφικνεῖται, θαυμαστόν, μόνας, ὄνομα, ἐντεῦθεν, πρᾶγμα, ὅπως.*

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## CHRISTMAS EXAMINATIONS, 1862.

FRIDAY, DECEMBER 19TH, 9 A.M. TO 1 P.M.

THIRD YEAR.

### GREEK.—DEMOSTHENES:—DE CORONA.

*Examiner*,..... REV. PROFESSOR CORNISH, B.A.

1. Translate, page 219, Ed. Tauchnitz:—*οἶμαι δ' ὑμᾶς * * * * ποιήσεται περὶ ἁπάντων.*

2. *a.* At what date was the suit of Æschines against Ctesiphon instituted? How long time elapsed before the trial took place? *b.* State definitely the accusation which Æschines brought against Ctesiphon, and also the three distinct grounds on which he based it. Point out the strong points which he succeeded in establishing. On what did Demosthenes mainly rely in the defence? And how does he deal with the accusations of the prosecutor? *c.* Before what court was this cause tried? How was it constituted, and what was its mode of procedure?

3. Translate, page 230:—*Ἀκούετε ὡς σαφῶς * * * * ταῦτα πράξαντος.*

4. *a.* Explain the allusions severally made to Æschines and Demosthenes in the last sentence of the above passage. *b.* Give a short account of the leading events in the reign of Philip, together with the dates of his accession and death; of the battle of Chæroneia; of Leuctra; of the capture of Olynthus; of the seige of Byzantium.

5. *a.* Describe the process of legislation, and the functions and duties of (1) the *Βουλή*, and (2) of the *Ἐκκλησία* under the Athenian constitution. *b.* Point out the distinction between a *ψήφισμα*, *προβούλευμα*, and *νόμος*.

6. Translate, page 238:—*ἀλλὰ τί ἐχρῆν * * * * προσῆκε γενέσθαι.*

7. Write explanatory notes on the several historical allusions in the above extract, and give the situations of the places mentioned in it.

8. *a.* Define the meaning of the following terms used in legal proceedings at Athens ;—*ὁ διώκων, ὁ φεύγων, ὁ ἑλών, ὁ ἅλους, γραφή, εἰσαγγελία, ἐπιτιμία.* *b.* State the difference in meaning between ;—*λόγου τυχεῖν* and *λόγον διδόναι ; θεῖναι νόμους* and *θέσθαι νόμους ; γράφειν παράνομα* and *γράφεσθαι παρανόμων ; εὐθύνας ἀπαιτεῖν* and *εὐθύνας ὑπέχειν.*

9. Translate, page 251 :—*Ἆρά γε μικρὰ * * * * Ἕλλησι συμφερόντων.*

10. *a.* Explain the expressions, (1) *καταβαλλόντα ἐᾶν ἐν ὑπωμοσίᾳ ;* (2) *οὐχ ἱκετηρίαν ἔθηκε ;* (3) *ἐν Μουνυχίᾳ ἔκαθέζετο ;* (4) *ὑπὸ τῶν ἀποστολέων ἐδέθη.* *b.* Give the meaning and derivatlon of the following words used in this Oration :—*ἀνέδην, ἐπήρειαν, προπηλακισμος, ἄκριτος, κλέμμα, κατάπτυστον, ἀναλγησίας, ἐωλοκρασίαν, αὐτεπαγγέλτους.*

11. State the exact force of the prepositions in the following extracts :

*a.* *τιμωρίαις παῤ αὐτὰ ἀδικήματα χρῆσθαι.*
*b.* *οὔτ' ἐπ' ἀληθείας οὐδεμιᾶς εἰρημένα.*
*c.* *ἐπὶ τῆς εἰρήνης ἐξουσίᾳ βαδίζοντες.*
*d.* *παρά σοι κατέλυον.*
*e.* *τῶν καθ' ὑμας πεπραγμένων καλῶν.*
*f.* *γεγοννίας καὶ νῦν ἐφ' ὑμῶν αὐτῶν.*

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

### CHRISTMAS EXAMINATIONS, 1862.

THURSDAY, DECEMBER 18TH, 2 TO 4 P.M.

### HISTORY.—HISTORY OF GREECE.

FIRST YEAR.

*Examiner*..... REV. PROFESSOR CORNISH, B.A.

1. *a.* Name the three peninsulas of Southern Europe, and give a general description of them. *b.* Give the latitude, and names, of the mountains which form the northern boundary of Greece. *c.* By what names did the Greeks designate themselves and their country? Whence have we the terms *Greeks* and *Greece?* *d.* Name the islands on the W. of Greece, and give their modern names.

2. *a.* What descent did the Greeks claim for the ancestors of their tribes? Give the names and the legendary genealogy of the four great divisions of the Greek race. *b.* During what periods, and betweeu what events, is the *Heroic Age* reckoned? Name the three most celebrated Grecian *Heroes*, and state briefly some distinguishing circumstance respecting each. *c.* Give an account of the TROJAN WAR.

3. *a.* Give an account of the government and political institutions of the SPARTANS. What was the special object of the legislation of Lycurgus? *b.* Give the dates of the first and second Messenian Wars.

4. State the distinction between a *Despotism*, *Monarchy*, *Oligarchy*, and *Democracy*, as they are found in the history of Greece, and give the derivation of these terms. Name the most celebrated *Despots* in Grecian history, and the states in which they ruled. What term did the Greeks apply to them?

5. Name the principal Colonies that were founded by the Greeks;—on the west coast of Asia Minor, in Sicily, and in Southern Italy. What

famous city did the Phocæans found? Give its modern name. Distinguish between the *Phocæans* and the *Phocians*.

6. Who was the last king of LYDIA? By whom, and at what date, was his empire overthrown?

7. *a*. What was the origin and chief cause of the PERSIAN WARS? *b*. Give the dates of the battles of;—MARATHON, THERMOPYLÆ, ARTEMISIUM, SALAMIS, PLATÆA, and MYCALE. Name the Generals in the forces of the Persians and Greeks that commanded in these several engagements.

8. Write a short statement of the leading events of the public life o (1) PAUSANIUS, (2) THEMISTOCLES, (3) CIMON, (4) PERICLES, and (5) ARISTIDES.

9. *a*. Give the dates of the beginning and ending of the Peloponnesian War; *b*. the principal battles that took place during the same; *c*. the generals on both sides; and *d*. the most disastrous expedition, to the Athenians, and the name of the decisive battle of the War.

10. What are the distinguishing features of Epic and Lyric Poetry? Enumerate, and give such facts of their life as you can remember, the leading *Lyric* poets of Greece.

Faculty of Arts.

McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1882.

Tuesday, December 19th, 9 a.m.

ELEMENTARY BOTANY.

SECOND YEAR.

Examiner.....J. W. Dawson, LL.D., F.R.S.

1. Describe the vegetable cell, stating its parts and manner of growth.

2. Explain the modes of cell-multiplication.

3. Explain the mode of thickening of the cell wall, the appearances produced by it, and its uses.

4. Describe the various kinds of vascular tissue, with their mode of formation and uses.

5. State the composition and uses in plants of Starch, Raphides, Albumen, Cellulose.

6. Explain the gradations of complexity in plants, with the terms used to denote them.

7. Describe the general structure and functions of the Root.

8. Explain the terms Aerial Stem, Diplophyte, Parasite.

9. Describe the stem in its earliest condition, and explain the mode of growth.

10. Give the morphology and homologies of the structures known as the Rhizome, Corm and Tuber.

11. Describe the parts and mode of growth of the Exogenous or Endogenous stem.

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1862.

TUESDAY, DECEMBER 16TH, 1½ P.M.

ELEMENTARY BOTANY.

SECOND YEAR.

*Examiner*,.....J. W. DAWSON, LL.D., F.R.S.

1. Describe the vegetable cell, stating its parts and manner of growth.

2. Explain the modes of cell-multiplication.

3. Explain the mode of thickening of the cell wall, the appearances produced by it, and its uses.

4. Describe the various kinds of vascular tissue, with their mode of formation and uses.

5. State the composition and uses in plants of Starch, Raphides, Albumen, Cellulose.

6. Explain the gradations of complexity in plants, with the terms used to denote them.

7. Describe the general structure and functions of the Root.

8. Explain the terms Aerial Root, Epiphyte, Parasite.

9. Describe the stem in its earliest condition, and explain its mode of growth.

10. Give the morphology and homologies of the structures known as the Rhizoma, Corm and Tuber.

11. Describe the parts and mode of growth of the Exogenous or Endogenous stem.

12. Explain the terms tristichous and pentastichous as applied to the arrangement of leaves.

13. Explain the structure and functions of the Parenchyma of the leaf.

14. Explain the cause of the ascent and descent of the Sap.

15. State the sources of supply of carbon or nitrogen to plants, and the manner in which either is assimilated; with examples of products in which it occurs.

16. Mention some of the more important inorganic substances occurring in plants, and give examples of the relations of plants to soils, as depending on the supply of inorganic matter.

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1862.

TUESDAY, DECEMBER 16TH, 1½ P.M.

GEOLOGY.

(PHYSICAL GEOGRAPHY AND DYNAMICAL GEOLOGY.)

FOURTH YEAR AND ENGINEERING STUDENTS.

*Examiner*,.....J. W. DAWSON, LL.D., F.R.S.

1. State the general laws of distribution of land and water, and the character of the continents in relation to their slopes.

2. Explain the distribution of the principal oceanic currents, and their causes.

3. State the phenomena of springs and Artesian wells, and the principal substances held in solution in spring water.

4. Explain the formation of river deltas, and describe one of the more important examples.

5. Name the principal substances held in solution in the waters of the ocean and of rivers.

6. State the causes tending to the degradation of continents, and give examples of their effects.

7. State the zones of depth of marine life, and their application in palæontology.

8. Mention the causes on which climate depends, and give an example of their operation.

9. Define the terms Aqueous, Volcanic, Plutonic, Metamorphic, as applied to rocks, and give an example of each.

10. Explain the terms Argillaceous, Arenaceous, Calcareous, as applied to rocks, with examples.

11. Give some examples of the origin of rocks from organic matters, with explanations of the mode of deposition of such rocks.

12. Explain the consolidation of sediments, and the modes of mineralization of organic remains.

13. State the disturbances to which beds are liable in the process of elevation, and explain the terms Dip, Strike, Anticlinal, Synclinal, Unconformability.

14. Explain the nature and mode of occurence of faults, and the complexities to which they may give rise.

15. Describe the various effects of denudation, as acting on horizontal, inclined, and contorted beds.

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1862.

TUESDAY, DECEMBER 16TH, 1½ P.M.

ELEMENTARY ZOOLOGY.

THIRD YEAR.

*Examiner*,.....J. W. DAWSON, LL.D, F.R.S.

1. Define an animal, as distinguished from a plant.

2. Describe the animal cell, name the principal tissues derived from t, and describe fully one of them.

3. Describe the Fibrous or the Muscular Tissue.

4. State the general structure of the *Nervous Sstem* in the *Vertebrata* and the modifications of this structure in the *Articulata*.

5. What are the fundamental structures of the vertebrate skeleton? Describe their parts.

6. Explain the organs of support in the Articulates and Mollusks.

7. Describe the secretions essential to digestion, and the organs which produce them.

8. State the chemical and vital changes involved in Respiration, and describe the organs provided for this function in *Mammalia*, *Fishes*, and *Insects*.

9. What is homology as distinguished from analogy or adaptation? How are they harmonized in nature, and which is the more important in classification, and why?—Give examples.

10. Explain the division of the animal kingdom into provinces, and state fully the characters of one of them.

11. Define the species in zoology, and state by what characters it may be distinguished from the variety.

12. State the gradations of groups in the zoological classification, and the considerations on which they are founded.

13. State the primary subdivisions of animals, as proposed by Aristotle, Linnæus, and Cuvier, and the questions recently raised in respect to the subdivision of the Radiata.

14. Describe the organ of any one of the special senses in the vertebrates, and its simplification in the lower animals.

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

CHRISTMAS EXAMINATIONS, 1862.

TUESDAY, DECEMBER 16TH, 9 A.M. TO 11 A.M.

SECOND YEAR.

*Examiner*,.....P. J. DAREY, M.A.

I. Translate into English.

LETTRE A LA REINE CHRISTINE.

*Madame*,

Je sais que Votre Majesté est aussi éclairée (1) et savante (1) que puissante (1) et magnanime (1). Voilà la raison qui m'a déterminé à m'adresser (2) plutôt à Votre Majesté qu'à tout autre prince. J'ai une vénération bien plus grande pour les personnes d'un mérite sublime que pour celles (3) qui n'ont que des titres pompeux, un nom célèbre, des aïeux (4) illustres et une fortune brillante. Les premiers (5) sont les vrais souverains de la terrre. Il me semble que le pouvoir des rois sur leurs sujets n'est qu'une image imparfaite et grossière (6) du pouvoir de l'esprit fort sur les esprits faibles. PASCAL.

* 1. Write the masculine of all these adjectives. Say why they are feminine, and give the rule according to which they form their feminine.

* 2. Write one person of all the simple tenses of this verb.

* 3. What part of speech is *celles?* What is its gender? Give the singular and the plural of the other gender.

† 4. What is the singular of *aïeux?* Give the other plural of that word, and state when you have to use the one, and when the other Give one example with each of those plurals.

* 5. Is *premiers* written strictly according to grammatical rules? How ought it to be written? Why has Pascal written it so?

* 6. What is the masculine of *grossière?* State the rule to form the the feminine of adjective ending in *er*.

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* For the elementary diviston.

† For the advanced division.

* 7. What are the two ways to translate *better* in French? State when you have to use the one and when the other. Give an example with each.

* 8. Explain the three different ways to write *mille* in French. Give an example with each.

* 9. Translate into French, writing all in words, *the 16th of December*, 1862. Point out the idiomatical difference there is between the English and the French in writing dates.

* 10. What do you call primitive tenses? How many are there? Enumerate them. Which tenses are formed from the *participle present*, and how?

* 11. Explain when you should translate the expression *I spoke* by the *Imperfect of the Indicative* and when by the *Preterite Definite*.

* 12. After what tenses of the indicative mood do you use the *Imperfect of the Subjunctive mood?* Give three examples.

* 13. Write all the simple tenses of the verb *neiger, to snow.*

† 14. How do you write the plural of *chef-lieu, blanc-seing, Hotel-Dieu, brèche-dents, tête-à-tête?* Why?

† 15. Correct this sentence:—*Un grand nombre de personnes que j'ai vues*, and state in what does the mistake consist.

† 17. What mistake is there in this sentence:—*Riche et puissant vous m'avez toujours été fidèle.* Write it correctly.

† 18. In what case does the adjective preceded by several substantives agree only with the last one? Give an example.

† 19. What do you observe about the adjectives *pardonnable, impardonnable, contestable, inestimable?*

20. What are the adjectives which generally precede the noun, and which are those which commonly follow it? Translate into English:—*Un brave homme, un homme brave; un honnête homme, un homme honnête; un pauvre homme, un homme pauvre.*

II. Translate into French.

The knowledge of nature is only half the task of a poet; he may be acquainted likewise with all the modes of life. His character requires that he estimates the happiness and misery of every condition, observe the power of all the passions in all their combinations, and trace the changes of the human mind as they are modified by various institutions and accidental influences of climate or custom, from the sprightliness of infancy to the despondency of decrepitude. He must divest himself of the prejudices of his age or country; he must consider right or wrong in their abstracted and invariable state; he must disregard present laws and opinions, and rise to general and transcendental truth which will always be the same; contemn the applause of his own time and commit his claims to the justice of posterity. JOHNSTON.

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

### CHRISTMAS EXAMINATIONS, 1862.

TUESDAY, DECEMBER 16TH, FROM 9 A.M. TO 11 A.M.

THIRD YEAR.

*Examiner*.....P. J. DAREY, M.A.

1. Expliquez quand la forme verbale en *ant* est *participe présent*, et quand *adjectif verbal*.

Ecrivez correctement les phrases suivantes:

On ne voyait de tous côtés que des femmes *tremblant*, des petits enfants les larmes aux yeux *courant* vers la ville. Les bœufs *mugissant* et les brebis *bêlant* venaient en foule *quittant* les gras pâturages et ne pouvant trouver assez d'étables pour être mis à couvert.

2. La forme verbale en *ant* qui n'a qu'nn régime indirect est-elle *participe présent* ou *adjectif verbal*?

Ecrivez correctement les formes verbales en *ant* suivantes:

Voyez ces *riant* vergers remplis d'arbres qui plient sous les poids de leurs fruits *pendant* jusqu'à terre. Les Maures *descendant* de leurs montagnes parcouraient et pillaient l'Afrique.

3. Comment doit-on écrire la forme verbale précédée de la préposition *en*?

Comment écrivez-vous *voulant* et *étudiant* dans les phrases suivantes

Nous hasardons de perdre *en voulant* trop gagner.

Ces jeunes gens *en étudiant* toujours avec le même soin, ne peuven manquer de réussir.

4. Corrigez les fautes qui se trouvent dans les deux vers suivants; et donnez la règle d'après laquelle vous les corrigez:

Que de palais *détruit*, de trônes *renversé!*
Que de lauriers *flétris*, que de sceptres *brisé!*

Le *participe passé* accompagné de l'auxiliaire *être* s'accorde-t-il avec le complément direct du verbe ou avec le sujet? Cet accord a-t-il lieu lorsqu'*il* (le complément ou le sujet) est placé avant ou après le participe?

5. Les verbes neutres qui prennent l'auxiliaire *avoir* ont-ils le participe variable ou invariable, et pourquoi ? Ceux qui sont conjugés avec l'auxiliaire *être*, diffèrent-ils de ceux conjugés avec *avoir* dans l'accord du participe.

Ecrivez correctement les participes passés dans la phrase suivante :

L'on a *vu* un cercle de personnes *lié* par un commerce d'esprit, par tout ce qu'on appelait délicatesse et sentiments ; et ils étaient *parvenu* à n'être plus *entendu* et à ne s'entendre pas eux-mêmes.

6. Quelle est la règle d'accord pour les participes des verbes essentiellement pronominaux ?

Qu'y a-t-il à observer si le verbe est accidentellement pronominal ?

Ecrivez correctement les participes passés contenus dans les phrase suivantes :

Les plus habiles gens se sont *appliqué* à donner des règles en cette matière. L'ambition ne quitte jamais un cœur dont elle s'est une fois *emparé*.

7. Quelle est la règle du participe *fait* suivi d'un infinitif ? Donnez-en deux exemples.

8. Quelle différence y a-t-il entre *de suite* et *tout de suite*, entre *plutôt* et *plus tôt*, et entre *tout à coup* et *tout d'un coup* ? Traduisez en français : The lynx does not run *straight forward* like the wolf.

9. *Entre* et *parmi* s'emploient-ils l'un pour l'autre ? Expliquez quand on doit en employer l'un, et quand l'autre.

10. Quelle différence y a-t-il entre *davantage* et *plus* ? Quelle faute y a-t-il dans ce vers ?

A souffrir en vivant *davantage* d'ennemis.

Corrigez-la et dites en quoi consiste la faute.

Traduisez en français les phrases suivantes :

Confidence contributes *more* to conversation than intellect. However quick a movement may be we can conceive one which is *still more so*.

11. Quelle différence y a-t-il entre *aussi* et *si* ?

Traduisez ces phrases :

From philosophy to impiety, it is *as* far as from religion to bigotry. There is nothing which man gives *so* liberally as advice.

12. Quelle différence y a-t-il entre ces deux expressions : *c'est à moi à* et *c'est à moi de*.

Traduisez ces phrases :

*It is the sovereign's duty to* have the laws executed. I have nothing more to tell you ; *it is your turn*, Gil Blas, to relate your exploits.

13. Traduisez en français le dernier paragraph du chapitre vingtième du *vicar of Wakefield ;* commençant par ces mots : *Upon my arrival in England*,

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# McGILL COLLEGE MONTREAL.

## CHRISTMAS EXAMINATIONS, 1862.

WEDNESDAY, DECEMBER 17TH.—1½ P.M. TO 4½ P.M.

## GERMAN.

ELEMENTARY COURSE. SECOND YEAR.

*Examiner*.....Professor C. F. A. MARKGRAF.

1. How many forms have the absolute possessive pronouns in German, and what is the declension of each form? Give examples.

2. When can you use the genitive welches?

3. Relating to a masculine noun previously expressed, when is welchen' or deſſen or ſeiner (pers .pron.) to be used? Give the rules of construction, and write three sentences in illustration.

4. Give the four cases singular of ich, du and wer, and state of what meanings the last pronoun is susceptible.

5. Write in full letters the following numbers: 327, 846, 2571, 9092.

6. Give the nominative singular, preceded by the definite article, of Bände, Wagen, Tücher, Schafe, Kuchen, Hauptleute, Länder, Schiffe, Ruſſen; and the nominative plural of Arm, Glas, Bauer, Arzt, Sohn, Matroſe, Herz, Käſe, Schotte.

7. Decline in the four cases singular: The one who; A stone building (Gebäude, n.); The noble (edel) lion (Löwe, m.)

8. Write the 2nd and 3rd persons singular and the 2d person plural of the imperfect and pluperfect subjunctive and of the future perfect indicative, and the whole of the imperative of haben, ſein and werden.

9. Von, an, bei, nach, auf, mit, in, zu, über.
State which of these prepositions govern one, and which two cases In the latter instance, show by short examples when they require the one or the other case.

10. *a*. How are compound verbs formed in German? How many kinds are there, and what is the construction peculiar to each? Mention some of the unaccented prefixes.
*b*. Do you find any analogy between German and English compounds?

11. Translate into German:

I have nothing good to give you. We have neither the hatter's beautiful round hats, nor the old tailor's silver threads. Whose chest is this? it is not mine, it is yours; no, it is theirs. When will (fut.) your father be able to answer the note of my son? He has too much to do to-day, but he will (fut.) answer (change verbs) it to-morrow. Does any one wish to speak to the Germans or to the English? The Americans have a mind to speak to the one and to the other. I have fewer houses and less money than those merchants, but they have not as many fields, gardens, and woods as I. Have you any honey? We have some good. I have not many more letters to write, but I have no more paper; can you lend me some? My brothers have been at the painter's. Was he at home? Where will you take me to? We shall (fut.) go home.

12. Translate into English:

Jetzt, nach vollendetem Geschäfte, legte sich dieser wohlthätige Genius wieder zu seinem ernsteren Bruder hin. „Wenn die Morgenröthe aubricht," rief er mit fröhlicher Unschuld, „dann preiset mich die Welt als ihren Freund und Wohlthäter! O welche Freude, ungesehen und heimlich Gutes zu thun! Wie glücklich sind wir unsichtbaren Boten des guten Geistes! Wie schön unser stiller Beruf!"

So sprach der freundliche Engel des Schlummers. — Der Todesengel sah ihn mit stiller Wehmuth an, und eine Thräne, wie sie die Unsterblichen weinen stand in seinem großen dunkeln Auge. „Ach," sagte er, „daß ich nicht, wie du, des fröhlichen Dankes mich freuen kann; mich nennt die Welt ihren Feind und Freudenstörer! — „O mein Bruder," erwiederte der Engel des Schlafes „wird nicht auch, beim Erwachen, der Gute in dir seinen Freund erkennen und dankbar dich segnen? Sind wir nicht Brüder und Boten eines Vaters?"

So sprach er; da glänzte das Auge des Todesengels, und die brüderlichen Genien umarmten sich zärtlich.

(From „Tod und Schlaf" by Krummacher.)

## Knabe und Schmetterling.

Knabe: „Schmetterling,
Kleines Ding,
Sage mir, wovon lebst du,
Daß du nur in Lüften schwebst?"

Schmetterling: „Blumenduft, Sonnenschein,
Das sind die Nahrung mein."

Der Knabe, der wollt' ihn fangen,
Da bat er mit Zittern und Bangen:
„Lieber Knabe, thu' es nicht,
Laß mich spielen im Sonnenlicht.
Eh vergeht das Morgenroth,
Lieg' ich doch schon kalt und todt."

W. Hey.

Mo

*Exam*

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# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

### CHRISTMAS EXAMINATIONS, 1862.

THURSDAY, DECEMBER 18TH.—1½ P.M. TO 4½ P.M.

### GERMAN.

ELEMENTARY COURSE. THIRD YEAR.

*Examiner* .....Professor C. F. A. MARKGRAF.

1. State the differences in the meaning of the verbs wecken and aufwecken, erwachen and aufwachen, anziehen and ankleiden.

2. Give the 3 persons sing. of the present and imperfect indicative and the 1st person sing. of the perfect subjunctive of eingeſtehen, behalten, abbrennen (verb neut.), ſterben, ſchlafen, ausſteigen.

3. What does ſpazieren in union with gehen signify? What with fahren — reiten — führen.

4. Er hat angeworben; ſie vergaßen; ſie ſchloßen; ihr werdet ſtoßen; es hätte gegeben; du wirfſt weg; man zöge; erweiſen (infin.); angeboten haben. Give the tenses of the passive voice corresponding with the forms of verbs as above-mentioned.

5. Correct the following sentences: Was lehren Sie ihm? Sind Sie kalt? Seit wann iſt er hier geweſen? Gelingt er, ſeines alten Pferdes los zu werden? Er wohnt unweit dem Schloſſe. Haben Sie Ihren Finger geſchnitten?

6. What part of speech is gern? What is its literal meaning, and with what English phrases does it respectively correspond, when used in connection with a verb *a.* in the positive, *b.* in the comparative? Exemplify each construction by one sentence.

7. When is halb inflected? when not? Give instances.

8. Mention three impersonal verbs which are used in an absolute, and three others used in a relative sense.

9. Translate into German:

What countrymen are these strangers? They are citizens of Leipsic. What sort of weather was it when you went out? He was here a fortnight ago. I have been living in this town these three years. How are you pleased here? You may use my book if it pleases you. Have you hurt yourself? You are mistaken if you believe that he has done us any harm. Will you desire your brother to change me this piece of money? It is hardly two days since I met your parents. I never doubt what that man tells me, for I do not remember that he has ever told me anything that is not true. Did you hear that the six thousand men whom we were expecting have arrived? I would have taken care of the money, if (subj.) you had trusted me with it.

10. Trrnslate into English:

Heinrich floh aus dem Schloß. O wie hätt' er eine Trauer ſchauen oder theilen dürfen[a]), die er ſelber über die väterlichen Freunde gebracht? Er ließ ſeinem Lehrer bloß das Verſprechen und die Zeit der Wiederkehr zurück. Schwankend und laut weinend kam er ins engliſche Wäldchen und ſah die weißen Grabmäler wie bleiche Skelette die grüne Umlaubung durchſchneiden. Aber er hatte nicht den Muth, die leere künftige Schlummerſtätte des Vaters zu berühren; — er lehnte ſich blos an die zweite Pyramide, die ein Herz bedeckte, das nicht durch ſeine Schuld geſtorben war, das mütterliche, das ſchon lange ſtill ſtand im Staube der zerfallenden Bruſt.

(Jean Paul F. Richter: Der doppelte Schwur der Beſſerung.)

. . . . . Jetzt, da ſich jedes trennte
Zu ſeinem Elemente,
Grüßt ihn Arion's volles Herz:
„Leb' wohl, und könnt' ich dich belohnen,
Du treuer, freundlicher Delphin!
Du kannſt nur hier, ich dort nur wohnen,
Gemeinſchaft iſt uns nicht verlieh'n.
Dich wird auf feuchten Spiegeln
Noch Galatea[b]) zügeln,
Du wirſt ſie ſtolz und heilig[c]) ziehn."

Arion eilt nun leicht von hinnen,
Wie einſt er in die Fremde fuhr;
Schon glänzen ihm Korinthus' Zinnen,
Er wandelt ſingend durch die Flur.
Mit Lieb' und Luſt geboren,
Vergißt er, was verloren,
Bleibt ihm der Freund, die Zither, nur.

(From A. W. Schlegel's ballad "Arion[d])."

*a.* Is dürfen generally used in the sense in which Richter employs it here? In what tense and mood is it? Do you see anything peculiar in the construction?

*b*. Who is Galatea? *c*. What belief of the Ancients does heilig allude to? What part of speech is it?

*d*. Give briefly the substance of the fable upon which this ballad is founded, and show where the poet deviates from the story as related by Herodotus.

11. *α*. Give a brief sketch of the life of Richter. In what department of literature does he occupy a prominent position? What are the distinguishing characteristics of his writings? Name some of his principal works.

*β*. Give the dates of Schlegel's birth and death. To what work of his does he owe his high reputation as a critic? State the subject and the merits of the work.

# Faculty of Arts.

# McGILL COLLEGE, MONTREAL.

## CHRISTMAS EXAMINATIONS, 1862.

THURSDAY, DECEMBER 18TH.—1½ P.M. TO 4½ P.M.

### GERMAN.

ADVANCED COURSE. THIRD YEAR.

*Examiner*.....Professor C. F. A. MARKGRAF.

I. Translate into German:

The watchman of the seas leaves not the coast, duteous in his lonely cares; while Beowulf, with his companions, marches onward. They came to where the streets were paved; an indication in that age of a regal residence. The iron-rings in their mailed coats rang as they trod in their "terrible armour." They reach the king's house; they hang up their shields against the lofty wall. They seat themselves on a bench, placing in a circle their mailed coats, their bucklers, and their javelins. This warlike array called forth a Ulysses, "famed for war and wisdom"; they parley; the Thane hastens to announce the warlike but the friendly visitor; and the hero, so famed for valor, yet would not obtrude his person, standing behind the Thane, "for he knew the rule of ceremony."

(Beowulf, The Hero-Life.—D'Israeli's Amenities of Literature.)

II. Translate into English:

Bertrand.

Unermeßliches
Geſchütz iſt aufgebracht von allen Enden,
Und wie der Bienen dunkelnde Geſchwader
Den Korb umſchwärmen in des Sommers Tagen,
Wie aus geſchwärzter Luft die Heuſchreckwolke
Herunterfällt und meilenlang die Felder

Bedeckt in unabsehbarem Gewimmel,
So goß sich eine Kriegeswolke aus
Von Völkern über Orleans Gefilde,
Und von der Sprachen unverständlichem
Gemisch verworren, dumpf erbraust das Lager,
Denn auch der mächtige Burgund, der Länder-
Gewaltige hat seine Mannen alle
Herbeigeführt, die Lüttich er, Luxemburger,
Die Hennegauer, die vom Lande Namur
Und die das glückliche Brabant bewohnen,
Die üpp'gen Genter, die in Sammt und Seide
Stolziren, die von Seeland, deren Städte
Sich reinlich aus dem Meereswasser heben,
Die heerdenmelkenden Holländer, die
Von Utrecht, ja vom äußersten Westfriesland,
Die nach dem Eispol schaun — sie folgen alle
Dem Heerbann des gewaltig herrschenden
Burgund und wollen Orleans bezwingen.

(From Schiller's „Jungfrau von Orleans.")

III. Grammar.*

1. Give the German idioms corresponding with the following phrases:

It does not become you to do that. He knows everything. That is good for nothing. He criticizes everybody. I like neither. To pass by a place. To pass away the time. They went down the river. Each man amuses himself in the best way he can.

2. Translate and parse the following sentence:

Wir haben uns gewundert, daß Sie sich gegen den Herrn N. so übel haben betragen können; indessen ist es uns lieb zu vernehmen, wie leid es Ihnen gethan hat, Ihren Sie herzlich liebenden Freund betrübt zu haben.

3. Explain and illustrate by examples the use of the imperfect and preterite in German.

IV. Literature.

1. Which are the most ancient documents of German poetry? What is their nature and form, and to what period do they belong?

2. Name the Low-German dialects contemporaneous with the High-German during the Frankish period. What is the 'Heliand'?

3. To what causes do you ascribe the prosperous state of our poetry during the Suabian age? State what dialect was then chiefly made use of as a written language, and under what name it is generally known?

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* Answer also Nos. 4 and 6 of the grammatical questions of the Elementar Course of your year.

4. What was the character and substance of the Songs of the 'Minnesänger'? Mention some of the most prominent men among them.

5. What date may be assigned for the composition of the 'Nibelungenlied,' and who is the supposed author of it? What is its subject, and to what time and localities does it relate? What is its metrical form?

6. Give a short account of Schiller's life.

7. What is the leading feature of his writings? What has been his influence on German literature?

8. Give the titles of his principal dramas, and name the chief characters of the 'Maid of Orleans.' Why is the catastrophe of this tragedy not in accordance with historical truth? What object had Schiller in view?

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—WEDNESDAY, APRIL 8TH, 9 A.M. TO 1 P.M.

GREEK.—HOMER.—ILIAD.—BK. V.

FIRST YEAR.

*Examiner*,..... REV. GEORGE CORNISH, B.A.

1. Translate, vss. 111-132.

2. *a*. At what period of the Trojan War does the Iliad commence. *b*. Narrate the legend of the origin of the feud between the Greeks and Trojans. *c*. What is the generally received date of the destruction of Troy?

3. *a*. Give an account of the controversy that has been raised in modern times respecting the origin and authorship of the Homeric poems, What opinion is *now* most widely entertained on this subject? *b*. Were these poems at first committed to writing? *c*. By whom are they said to have been introduced into Greece? Who first collected and published them?

4. *a*. Analyse, and explain the formation of χαμᾶζε, in vs. 111. κλῦθί μοι:—is this the usual construction with κλύω? How do you account for the use of the Dat. here? Explain the use of the Infinitives in vss. 124, 130, and 132. *b*. What was the *Digamma*, and by what characters is it represented in Latin and English? Give instances. *c*. Write down some of the principal words that originally had the Digamma.

5. Translate, Vss. 290-310.

6. To what class of poetry do the Homeric poems belong? Name the metre used in them, and write down the scheme of the same. Define the terms *hiatus*, *crasis*, *arsis*, *thesis*, *synœrersis*, *diæresis*. Scan the following verses, and point out and explain any peculiarities of metre in them:—vss. 533-540.

7. Translate, Vss. 472–492.

8. *a*. What are the leading peculiarities of the language used by Homer? *b*. Explain the force of -θεν and -δε when used as suffixes. Give the meaning also of the following words: μὲν-δέ, ῥα, δή, νί, κέν, ἦ, ναί, μά, πέρ.

9. Translate, *a*. vss. 554–564. *b*. 719–732.

10. Explain accurately the following words in extract *b*:—ἴτυς, ἐπίσσωτρα, πλήμνη, δίφρος, ἄντυγες, ἄξονι, ῥυμός, ζυγόν, λέπαδνα.

11. Explain the following forms of verbs, and write down the 1st Sing. Pres. Ind. of each:—ἤστην, ἕλε, ἐνῄρατο, νύξ', ἐκέδασσε, ἔπτατο οὐτάμεν, ἐκγεγάμεν, ἀμπεπαλών, ἥμβροτες, ὀμόργνυ, μέμον', εὕδησι, κεκληγώς, πάγη, εἴασκον.

12. Give the formation, derivation and meaning of the following words that occur in Bk. V.:—ἀκάματον, ἅλιον, ἠϊόεντι, ἐτεόν, ἄδδην, μώνυχας, νείατον, ποδήνεμος, δηναιός, χαμαί, ἕλωρ, κύρμα, ἀολλέες, λάξ, ἀδαήμονι, ἀμβροσίην.

13. Turn the following into Attic:—ἰδέ, ὄχεσφι, ἕθεν, οὐτάμεν, κληῖδα, κάββαλεν, νεφέλῃσίν, οἴῃς πουλύν, λείουσιν.

14. *a.* Write down the Greek *Enclitics* and *Atonics*. *b.* Decline the following nouns, *with accents*:—λόγος, δῆμος, ναύτης, παῖς, ἄνθρωπος. *c.* Distinguish between υἷε and υἱέ: ἡ, ᾗ, ἦ, and ἤ.

15. When the *subject* and the *predicate* of a sentence refer to the same person, what is the general rule for the use of the Article? *b.* In what manner are adverbs often used as equivalent to adjectives? *c.* In what number does the verb generally stand when the Nom. is a *neut. plur.*? What exception is there? *d.* State the difference between μὴ with the *Imperat. Pres.* and μὴ with the *Aor. Subj.*?

16. Translate into Greek:—

The judge was in the habit of speaking well of the good.
Treat well those who manage the affairs of the state.
The father rejoiced in his sons' being wise and good.
If you have a talent, give it to the slave.
If we have anything, we will give it.
If he had anything, he would give it.
If he had had anything, he would have given it.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—WEDNESDAY, APRIL 8TH, 9 A.M. to 1 P.M.

GREEK.—EURIPIDES.—HECUBA.

SECOND YEAR.

*Examiner*,.....REV. GEORGE CORNISH, B.A.

1. Translate,—Ed. Oxon.—Hecuba, vss. 59—86.

2. *a.* Write a sketch of the life of Euripides, giving the dates of his birth and death. Mention the leading events in the history of Greece which took place during his life-time. *b.* Point out his chief characteristics and merits as a dramatic poet. *c.* Write a synopsis of the Hecuba. Where is the scene of the play laid? Of whom does the chorus consist?

3. *a.* Write down the metrical scale of the Iambic Trimeter Acatalectic. Under what conditions can the Anapæst occupy any other place than the first? Who, according to Horace, was the inventor of Iambics? *b.* Give the scale also of the Anapæstic Dimeter Acatalectic. *c.* Scan vs. 4, 10, 13, 59-64, 240-245.

4. Translate, vss. 379-401.

5. *a.* In vs. 13, what is the case of ὅ, and how do you explain the usage? *b.* In vs. 191, Hermann reads *γέννα* instead of *γέννᾳ*:—to whom does it then refer? *c.* In vs. 225, how do you explain the phrase *οἶσθ' οὖν ὃ δρᾶσον*? and also the Dat. *ἡμῖν* in 309? *d.* vss. 355, *ἀπόβλεπτος*:—give the derivation, and show how the word gained the signification it has in this verse. Explain the grammatical construction of vss. 373–74.

6. Translate, vss. 886-904.

7. *a.* *ἀλλ' ὡς γενέσθω*:—for what is *ὡς* here used? State the distinction between the use of the Acc. in 910, *στεφάναν κέκαρσαι*, and in vs. 912, *κηλῖδα κέχρωσαι*. *b.* Write down the Doric forms that occur in vss. 905–950, and turn them into Attic. *c.* What is meant by *strophe*, *antistrophe*, and *epode*?

8. Translate, vss. 1145-1167.

9. *a.* Give Hermann's emendation for *θάκουν * * * ἥνουνθ'*, in vss. 1153–54, and point out in what respects it is preferable to the reading of the text. How do you interpret the passage with his emendation? *b.* 1162, *πολεμίων δίκην*, explain this expression. 1166, *κόμης*, why the Gen.?

10. *a.* Explain the composition and derivation of the following words: —Κευθμῶνα, χερσονησίαν, ἀκταῖς, σάλῳ, σχεδίας, δοριθήρατος, λαιμότομον, πανδύρτοις, δηκτήρια, γένυν, νήνεμον, ἀκραιφνής, πρευμενής, πόρπας.

11. *a.* Parse and give the meaning of the following verbs:—ἐξητησάμην, ἐλιάσθην, ἀραμένη, ἄγησαι, ἐξεπταξάς, προσθίγω, καθεῖλες, μάρψαι, ἄρειαν, ἤνθει, κατέκτας, ἐμπέπτωκε. *b.* Explain the grammatical construction of: —370–71; 435–37, 'προσειπεῖν γαρ * * * * πυρᾶς, Ἀχιλλέως;' 505–6; 672–3, 'ἧς ἀπηγγέλθη * * * ἔχειν;' 892; 1215; 1151–53, 'πολλαὶ δὲ * * * * χερός.'

12. *a.* What is meant by *tmesis*, *ellipsis*, and *prolepsis*? *b.* State the general rules of accentuation. *c.* What is the rule with regard to the accent of prepositions standing after the word they govern? Point out instances of this in the Hecuba. *d.* Accentuate πόλις through all its cases. Contract and accentuate the verb ποιέω through all the numbers and persons of the present and imperfect indicative active.

13. Translate into Greek:—

The whole country of the Athenians was laid waste by the enemy, but they devastated only half that of their neighbours.

He says that he will fight, if it be necessary.

He was wont to praise all whom he saw acting well.

The heavy-armed troops arrived during the night without being observed and took the city.

He set a high value on good men, but the bad he despised.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—WEDNESDAY, APRIL 8TH, 9 A.M. TO 1 P.M.

GREEK.—SOPHOCLES.—ANTIGONE.

THIRD YEAR.

*Ordinary Examination.*

*Examiner*,.....REV. GEORGE CORNISH, B.A.

1. Translate, Antigone (Ed. Tauchnitz), vss. 162–190.

2. *a.* Mention the most remarkable circumstances in the life of Sophocles, and give a brief abstract of Athenian affairs during that period, assigning dates. *b.* In what other dramas, both of Sophocles, and of Æschylus and Euripides, do the fortunes of the house of Œdipus form the subject? State the position in the series of events which the Antigone occupies. *c.* Write a brief analysis of the plot of this play.

3. Write down the scale of the metre called *Iambic Trimeter Acatalectic*, with the various feet that are admissible into it. Mention the isochronous feet in the scale. Define the terms *Catalectic*, *Acatalectic*, *Brachycatalectic*, and *Hypercatalectic*. What was the Ἐκκύκλημα, and in what part of this drama was it used?

4. Translate, vss. 384–406.

5. *a.* vs. 391, *ταῖς σαῖς ἀπειλαῖς*:—how do you explain the use of the Dative here? Quote other instances of a similar use in this play. vs. 397, *θοὐρμαιον*:—explain this word, and also *κἀπίληπτος* in 406. *b.* Translate, and explain the grammatical constructions of the following vss.:—48; 73–75; 182–83; 213–14; 392–94; 556; 663–67. *c.* *ἠδ̓ης, ἠδη, νιν, σφε*:—for what are these forms severally used?

6. Translate, vss. 781–805.

7. *a.* State the subject of the above Chorus, and point out its bearing upon the action of the play. *b.* *ἀνίκατε μάχαν*:—why the accusative? *ἐν κτήμασι πίπτεις*:—explain this and point out the antithesis to it. *ἀμερίων ἐπ̓ ἀνθρώπων*:—give the force of the preposition. *c.* Write down the Doric forms that occur in the above Chorus, and give the Attic for them.

8. Translate, vss. 1064–1090.

9. vs. 1065, for *τροχοὺς* L. & S. give *τρόχους*:—what is the difference in meaning? Explain the construction of vss. 1068–1073. In 1078, what is the subject of *φανεῖ*? By what is the gen. *σου* in 1084 governed? Give the different interpretations of vss. 1084–85.

10. Translate, vss. 1231–1243.

11. *a.* vs. 1229;—for what is *τῷ συμφορᾶς* used? vs. 1232;—how is the Dat. *προσώπῳ* used, and to whom does it refer, Haemon or Creon? Explain vss. 1234–37. *b.* In vs. 1281, Wunder reads *ἢ κακῶν* for *ἐκ κακῶν*: —what is the force of the particle *ἤ*, and how do you translate the vs. with it?

12. Give the composition, meaning and derivation of the following words used by Sophocles:—*δημόλευστον, ἀρδην, δεξιόσειρος, βαλβίδων, ἐπημαξευμένη, ὑπήνεμοι, αὐτόπρεμνα, λοισθία, σκαιότητα, ἄπαρνος.*

13. *a.* Accentuate and give the different meanings, according to their difference of accentuation, of;—*αγων, αλλα, ταυτα, ων, ην, παρα, φιλει, νοσον.* *b.* Name the different significations of the *Middle Voice*. *c.* State the difference in meaning of *ὥστε* with the Infinitive and with the Indicative.

14. Translate into Greek:—

The citizens value a good king very highly but a despot they hate. The law-giver enacts laws for his friends but the king for his subjects. If, said he, we conquer the Romans in one more battle, we are undone. Cyrus, if any man, was in the habit of performing just actions to all men. The city is so strong that it cannot be taken by the enemy.

# McGILL UNIVERSITY, MONTREAL.

## B.A. ORDINARY EXAMINATIONS, 1863.

WEDNESDAY, APRIL 8TH, 9 A.M. TO 1 P M.

*Examiner*..... REV. GEORGE CORNISH, B.A.

GREEK. { THUCYDIDES.—BOOK II.
ÆSCHYLUS.—PROMETHEUS VINCTUS.

1. Translate, Thucydides, Book II. Chap. VII.

2. *a.* λελυμένων τῶν σπονδῶν;—to what is allusion here made? *b.* καὶ Λακεδαιμονίοις μὲν * * * * ταῦτα παρασκευασθῇ;—point out the grammatical difficulties of this sentence, and give explanations. What alterations would you suggest for the removal of these difficulties? *c.* In Chap. 2, what is meant by the phrase θέμενοι ἐς τὴν ἀγορὰν τὰ ὅπλα? *d.* Explain the form Πλαταιῆς.

3. *a.* Give an account of the life of Thucydides;—at what place and under what circumstances was his history written;—how many years of the Peloponnesian War does it comprehend? *b.* What divisions of the year does Thucydides adopt, and for what reason? *c.* Give the dates of the beginning and end of the Peloponnesian War;—the principal battles by sea and land;—and its general results.

4. Translate, Chap. LI.

5. *a.* Explain the grammatical construction of the first and last sentences of Chap. 51. *b.* Give instances of Thucydides' use of the rhetorical figure Meiosis. *c.* In what different senses is the word μάλιστα used? *d.* Point out, with illustrations, what you regard as the leading features of the style of Thucydides.

6. Translate, Chap. LXXXIII.

7. *a.* Chap. 83:—ὑφορμισάμενοι—what is the subject of this verb? Draw a sketch of the opposite lines of coast, and describe the movements of the hostile fleets, referred to in this chapter. *b.* Chap. 90:—ἐπὶ τὴν ἑαυτῶν γῆν;—state the interpretation and explanation of this passage according (1) to Grote, and (2) according to the Scholiast, Arnold, and others, and state, with reasons, which you prefer.

8. Translate, Prometheus Vinctus, vss. 284-306.

9. *a.* Scan vss. 291–301. *b.* Name the metrical systems employed in these verses, and write down the scales of them, respectively.

10. *a.* The Prometheus Vinctus is believed to have been the second of a Trilogy;—give the Greek titles of the other two. *b.* Where is the scene of this Play laid?

11. Translate, Prometheus, vss. 476–499.

12. *a.* Point out and explain the technical terms, in the above extract, that relate to the practice of (1) Medicine and (2) of Augury. *b.* Explain the composition and derivation of the following words used by Æschylus :—*αἰπυμῆτα, πάχνην, νηλής, διακναιόμενος, σκεθρῶς, ἀϊστώσας, ἄτρεστοι, ἀήσυροι, κνώδαλα, ἄκικυν, ἐτήτυμα, ἀνήμεροι.* *c.* In vs. 416, what is the case of *μάχας*? and in 272, of *πέδοι*?

13. Translate and give the grammatical construction of vss. 330–333 ; 480–483 ; 760–762 ; 938–977. Quote the proverb alluded to in vss. 880–889, and name its author.

14. Translate into Greek :—

The Athenians sailed homewards with fifty ships for the purpose of defending their own land.

If the wise and just had managed the affairs of the government, the citizens would now be prosperous instead of wretched.

The messenger reported that the Athenians had fought a great battle and gained a decisive victory, and that thus the land of Attica was freed from the presence of the enemy, who had invaded it with superior numbers both of heavy and light armed troops. Those with the king, with their heads uncovered, charged the ranks of the Greeks.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—THURSDAY, APRIL 9TH, 9 A. M. TO 1 P. M.

LATIN.—VIRGIL. { THE ECLOGUES. / ÆNEID, BOOK VI.

FIRST YEAR.

*Examiner*,.....REV. GEORGE CORNISH, B.A.

1. Translate, Eclogue III, vss. 28–51.

2. *a*. Name the departments of poetry to which the Eclogues and the Æneid respectively belong, and point out the leading characteristics of each. *b*. Give a sketch of the life of Virgil, and mention the most famous of his contemporaries in literature and politics. What Greek poet has he mainly imitated in his Bucolics?

3. *a*. State the facts which form the historical groundwork of Eclogue I., and the date of their occurrence. What real persons are the speakers in it supposed to represent? *b*. Give the force of the preposition 'de' in 'depellere,' vs. 22. Construe vss. 54–56. In vs. 73, for 'produxit' the old editions read 'perduxit':—what is the difference in the meaning of the two words? *c*. Give the modern names and countries of the Arar, Tigris, and Oaxes.

4. Translate, Eclogue V., vss. 56–80. In whose honour was this passage probably written? vina *Ariusia*, *Lyctius* Ægon:—explain these epithets.

5. Write short accounts of the legends alluded to in Eclogue VI., vss. 41–63.

6. Translate, Eclogue IX., vss. 1–15.

7. *a*. Name the metre employed by Virgil in his poems. What feet enter into it? Write down the scale of it, and state the principal rules for its scansion. *b*. Scan Æneid VI., vss. 124–132. How do you account for the lengthening of the ultimate of Anchisiada?

8. Translate, Æneid VI., vss. 190–211. How do you construe v. 200?

9. Where were the Syrtes; Gnosia tellus; Simois; Xanthus; Alba Longa; Gabii; Mycænæ; and Argos?

10. Give the derivation and composition of the following words: bidentes, intactus, adytum, satus, operta, incestat, fissile, frigus, fetus, vorago, nemus, soporus, inclytus, fulmen, passim, tempora, oblivia,

instar, and triumphus, introducing any English words that are akin to them or derived from them.

11. Translate, and explain the grammatical construction of:—Æneid, VI., vss. 20–22, 'tum pendere pœnas * * * natorum;' 60, 'prætenta syrtibus arva;' 62, 'Hac Trojana * * * secuta.' 83, 'O tandem * * * periculis.' 164–5, 'quo non præstantior * * * * cantu.' 215–17; 'cui frondibus * * * armis.' 229–30, 'Idem ter * * * olivæ.' 451-55, 'quam Troius heros * * * amore est.' 760-61, 'Ille * * * loca.'

12. Translate, Æneid, VI. *a*. vss. 580–594. *b*. 825–841.

13. *a*. State what you know of the men and events alluded to in extract *b*. *b*. Decline the following nouns, naming the gender of each: miles, nix, funus, domus, caro; also unus, duo, tres. *c*. Parse the following verbs:—consevimus, trivisse, risere, sequere, ruperunt, vexasse. *d*. Write down the Perfects and Supines of:—sero, fundo, cado, caedo, sisto, pello, cano, pono.

14. Give the construction with refert, licet, piget, and expedit. Give instances of *intransitive* verbs that become *transitive* when compounded with a preposition.

15. Translate into Latin:

The Gauls gave Cæsar much information about their own affairs.

The Consuls published a proclamation that no citizen should leave the city.

Pericles was so generous that he gave all his lands as a free gift to the state.

I fear he will come, but I warned him not to come.

Of what importance is it to you whether he comes or not? I hope he will come if he is allowed.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—THURSDAY, APRIL 9TH, 9 A.M. TO 1 P.M.

## LATIN. TACITUS.—GERMANIA AND AGRICOLA.

### SECOND YEAR.

*Examiner*,.....REV. GEORGE CORNISH, B.A.

1. Translate Germania, Chap. XI.

2. *a.* Give the probable derivation of the words *Germania* and *Rhenus*. *b. nox diem ducere videtur*:—what traces of this mode of reckoning are there in our own language? *c.* Chap. 9, *Herculem, Mercurium, Martem*:—what deities of the Germans are probably alluded to by Tacitus under these names?

3. Translate, Germania, Chap. XL.

4. Translate and explain the syntax of the following passages:—Chap. 1. 'Rhenus, * * * Oceano miscetur.' 6. 'In universum æstimanti * * roboris.' 13. 'Sed arma sumere * * probaverit.' 14. 'Cum ventum in aciem, * * * non adæquare.' 16. Nullas Germanorum populis, * * * notum est.' 21. 'Luitur enim etiam homicidium * * * universa domus.' What is the force of *recipit satisfactionem*?

5. Translate the following passages, and point out in what respects they were an indirect censure on the vices of Roman society:—

*a.* "Nemo illic vitia * * * sæculum vocatur." 19.
*b.* "Ergo septa pudicitia * * * corruptæ." 19.
*c.* "Numerum liberorum * * * bonæ leges." 19.
*d.* "Dotem non uxor * * * offert." 18.
*e.* "Nec ulla orbitatis pretia."
*f.* "Fenus agitare, et in usuras extendere ignotum."
*g.* "Funerum nulla ambitio."

6. What are the modern names of the rivers Rhenus, Rhodanus, Mosa, Amisia, Visurgis, Albis, and Lupia? Where were the Decumates Agri? *In insula oceani*:—two islands have been named by different editors in connection with this:—give their names, and the reasons that have been respectively urged in their favour.

7. Translate, Agricola, Chap. XII. What are the cases of:—*regibus, factionibus* et *studiis, duabus tribusve civitatibus*? Explain the derivation and usage of *quodsi*.

8. *a.* Agricola, Chap. VI. What were the *magistratus* here referred to? 'Filium ante *sublatum*'—explain the custom here alluded to. *b.* Give the probable dates of the composition of the Germania and Agricola, and point out any passages in them which seem to fix their respective

dates. *c.* Chap. V: 'Prima rudimenta * * * et inscitiam retulit;'—translate, and explain the construction of these sentences. *d.* What is the Mona of (1) Tacitus, (2) Cæsar? What are the modern names of Clota, Bodotria, Taus, Orcades? Where was the 'Veteranorum colonia' placed?

9. Translate, Agricola, Chap. XXIV.

10. *a. in* spem, *ob* formidinem, *in* occasionem:—give the import of the prepositions. *b. Nave prima* transgressus:—what different explanations have been given of this expression? *c. Gallico mari, nostri maris:*—what seas are these? *d. ex eo audivi:*—to whom does the pronoun refer, and why?

11. Translate, Agricola, Chap. XLV.

12. Write a sketch of the life of Agricola. 'Tanquam pro virili portione innocentiam principi donares:'—how do you explain this allusion?

13. Translate into Latin:—

Whilst they were drinking, the enemy came down to the river, and slew three hundred and captured five hundred of them.

In the year 510 B. C., after the expulsion of Tarquinius, consuls were elected at Rome.

He killed both the Greek and the Gaul at the same time; the one by poison, the other by starvation.

He answered that Cæsar, if he had been informed of the affair, would have returned to Rome without delay.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—THURSDAY, APRIL 9TH, 9 A.M. TO 1 P.M.

## LATIN.—TACITUS.—ANNALS, BOOK I.

THIRD YEAR.

*Ordinary Examination.*

*Examiner*,.....REV. GEORGE CORNISH, B.A.

1. Translate, Chapter IV.

2. *a.* Write a sketch of the life of Tacitus. *b.* Give the names of the Roman Emperors during whose reigns he lived. *c.* Give an account of his works. *d.* Name the principal Roman Historians prior to the age of Tacitus, with an account of their extant works.

3. Write a short critique on the style of Tacitus, and point out what you conceive to be his peculiar excellencies and defects as a writer. Mention also, with instances, some of his peculiarities in the use of rhetorical and poetic expressions; of the abstract for the concrete; of enallage, of ellipsis; of the Historic Infinitive.

4. Translate, Chap. VIII.

5. *a.* What is the force the Imperfects *assumebatur* and *addebat* in the above extract? *b.* Explain the following:—per *virgines Vestæ:* in *spem secundam: populo* et *plebi: porta triumphali: sede destinata: diem illum* * * * *repetitæ: sacramentum* in *nomen Tiberii.*

6. Translate, Chap. XVI.

7. *a. Pannonicas legiones:*—what legions were these, and where (modern names) were they stationed? Ob *justitium* aut gaudium: theatralium *operarum.* What was a *justitium* during the Republic? In what sense does Tacitus here use the term? Does Tacitus elsewhere use the term *operae* in this signification? *Apud Vexillum tendentes; sub vexillis* tenerentur; ut *singulos denarios* mererent; *praetorias cohortes;*—explain the words in italics. *b.* Turn the speech of Percennius into the *oratio recta* from "Enimvero militiam" to the end.

8. Translate, Chapter XIX.

9. Write short historical notes on the following personages mentioned in these Chapters: *Bruto et Cassio caesis; Sextus Pompeius; Tiberium Neronem et Claudium Drusun privignos * * auxit. Sallustius Crispus: Asinius Gallus.*

10. Translate, Chapter XXXII. Give the derivation and explanation of the word *lymphati.*

11. Explain the use of the Supine, Gerund, and Gerundive; and write short Latin sentences illustrating the construction of each. State the rule for the use of (*a*) *quod* with the *indicative*; (*b*) *quum* with the *indicative* and *subjunctive*. What is the difference in meaning between the expressions sapientior Caio and sapientior quam Caius?

12. Translate into Latin:—

He sent thither M. Antonius, with five cohorts of the 8th legion. The inhabitants of Sulmo, as soon as they saw our standards, opened their gates; and all, both townsmen and soldiers, came forth to meet Antonius with their congratulations. Lucretius and Attius threw themselves down from the wall. When Attius was brought before Antonius, he begged that he might be sent to Cæsar. Antonius, with the cohorts and Attius, returns the same day that he had set out thither.

# McGILL UNIVERSITY, MONTREAL.

## B. A. ORDINARY EXAMINATIONS, 1863.

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

LATIN. { TERENCE.—HEAUTONTIMOROUMENOS.
TACITUS.—AGRICOLA.

*Examiner*,.....REV. GEORGE CORNISH, B.A.

1. Translate, Heauton. (Ed. Tauchnitz), Act. I., sc. 1, vss. 41–65.

2. *a.* Narrate the principal facts that have been handed down to us respecting the birth-place and social position of Terence. With what celebrated men was he intimate at Rome? How did this intimacy affect his literary reputation? *b.* State the three particular charges that were brought against Terence as a dramatic writer. How does he meet these charges? Who was his most persistent opponent? *c.* Give the names of the plays written by Terence.

3. Write a brief account of the rise and progress of Dramatic Literature among the Romans, mentioning the principal writers therein, and those whom they took as their models, in respect to treatment of subject, characters, plot, &c.

4. Translate, Heauton., Act II., sc. 4.

5. *a.* For what reasons may the plays of Terence be regarded as of importance and value in respect to the pronunciation of the Latin language? *b.* Define *synizesis*, and give instances of its occurrence (1) in the written forms of the language, (2) in the pronunciation of words in scanning the verses of Terence. In connection with the latter, adduce instances from the French.

6. Translate, Heauton., *a.* Act IV., sc. 2. *b.* V., sc. 4.

7. Scan vss. 41–52 of Prologue, naming the metre employed and giving the scale thereof.

8. *a.* Translate and explain;—*statariam* agere. Name the two other classes into which Dramas were divided. I. 1, 60;—et *belli* gloriam armis repperi. I. 2, 13;—*cave faxis*. III. 1, 78;—*dare denegaris*. IV. 5, 45;—*Quid mea?* What case is *belli?* Supply the ellipsis in each of the other extracts and point out the case of *mea* in the last. *b.* Explain the grammatical structure of the following extracts:—(1) I. 1, 103–104. (2) II. 3, 74. (3) IV. 1, 32–33. (4) IV. 4, 5–6. (5) *ib.* 25. (6) V. 1, 1–2. *c.* Give instances of the use by Terence of Adverbs in the place of

Pronouns. Explain the composition and derivation of the following words:—contaminasse, autumat, prorsus, ilico, imo, clam, propediem, pessulum, anuis (II. 3, 46), edepol, denuo, arrhaboni, bolum.

9. Translate, Agricola, Chap. XV.

10. Turn the above chapter into the *sermo rectus* from 'nescientibus' to the end.

11. *a*. Point out any mistakes made by Tacitus in the geographical description of Chap. 10. *b*. Write down the modern names of;—Clota, Bodotria, Taus, Orcades, Mona (of Tacitus), Mona (of Cæsar).

12. Translate, Agricola, Chap. XLIV.

13. Chap. 10. 'Nam hactenus jussum; et hiems adpetebat.'
16. 'et seditio sine sanguine stetit.'
28. 'et uno remigante.'
31. 'non in pœnitentiam laturi.'
19. 'et tributorum exactionem.' Give the various readings for these, and defend and explain these readings of the text.

14. "Natus erat Agricola * * * Collegia Priscoque consulibus.' Give the dates according to our mode of reckoning, and point out the diserepancy between them and the number of years assigned to Agricola. How may it be removed?

15. Translate into Latin:—

"The next day Hannibal, crossing the Anio, drew out all his forces in order of battle. Nor did Flaccus and the consuls decline the contest. When the troops on both sides had been arranged for the issue of that battle, in which the city of Rome was to be the prize to the conqueror, a violent shower mingled with hail threw both armies into such confusion, that, scarcely able to hold their arms, they retired into their camps, with less fear of the enemy than of anything else. And on the next day a similar storm separated the armies marshalled on the same ground. After they had retired to their camps, wonderful fine weather with stillness of the wind arose.

# McGILL UNIVERSITY, MONTREAL.

## B.A. EXAMINATION FOR HONOURS IN CLASSICS, 1863.

FRIDAY, APRIL 24TH, MORNING 9 TO 12.

GREEK.
- PINDAR.—OLYMP. ODES.
- ÆSCHYLUS.—SEVEN AGAINST THEBES.
- ARISTOPHANES.—THE FROGS.
- THUCYDIDES.—BOOK VII.
- ARISTOTLE.—RHETORIC, BOOK I.

*Examiner*,.....REV. GEORGE CORNISH, B.A.

1. Translate, Aristotle, Rhetoric I. *a*. chap. 3, §§ 5-7. *b*. chap. 11, §§ 3-5.

2. *a*. Give an account of the life and writings of Aristotle. *b*. In what does Aristotle place the safety of a state. *c*. Enumerate the definitions of happiness which he gives, and point out that which was adopted by the Stoics. *d*. State the successive periods that occur in the history of the Greek language. To which one does Aristotle belong?

3. Translate, Aristophanes, The Frogs;—*a*. vs. 271-294, *b*. vs. 1196-1241.

4. Translate, Thucydides, Bk. VII.;—*a*. Chap. 23; *b*. chap. 72.

5. Translate, Æschylus, Seven against Thebes;—*a*. vs. 375-396; *b*. 822-873.

6. Translate, Pindar, Olymp. Odes, Ode IV.

7. *a*. Describe, with a sketch if you can, the topography of Syracuse marking the Athenian lines of circumvallation previous to the arrival of Gylippus. *b*. Mention the circumstance which led the Athenians to interfere in the affairs of Sicily. *c*. What were the principal colonies which the Greeks planted in Sicily?

8. Write short explanatory notes on any words or phrases in the above extracts from Aristophanes that may seem to you to need elucidation. On what grounds do you account for the hostility of Aristophanes to Euripides?

9. Enumerate the principal dialectic peculiarities of the poems of Pindar.

FRIDAY, APRIL 24TH, AFTERNOON 3 TO 6.

## GRAMMAR, HISTORY, AND GEOGRAPHY.

1. Give a short account, with the generally received dates of:—*a.* The Argonautic Expedition; *b.* The Trojan War; *c.* The Return of the Heracleidæ; *d.* The Legislation of Lycurgus.

2. Write down the names of the principal Greek cities in Asia Minor, and mention the tribes by whom they were severally founded.

3. What accounts are given of the origin of the *Helots*? What were their condition and employments in Sparta? Were there any classes of men in any other of the Greek states whose condition was similar to that of the Helots? Give an account of the *Cryptia* and *Syssitia*, and of the purposes for which they were instituted.

4. State the principal regulations and enactments of the legislation of Draco and Solon. What changes and reforms were effected in the constitution of Athens by Cleisthenes? What was the object of the institution of *Ostracism* at Athens? Describe the method of voting, and the origin of the term. Did it prove advantageous or prejudicial to the interests of the state?

5. Give an account of Greek colonization in Italy.

6. *a.* Explain the three kinds of Comitia in early Roman history, with an account of their respective functions. *b.* When, and under what circumstances, were the Tribuni Plebis first created? *c.* Explain their *auxilium* and *intercessio.*

7. By what names do the Greek historians designate the Etruscans? What name did they give themselves? State the general testimony of the ancient writers, Herodotus especially, respecting the origin of this people and their introduction into Italy.

8. Explain the expression *Patres Conscripti.* Of whom was the Senate composed? What were its functions and powers? Distinguish between *populus* and *plebs.*

9. Explain the difference between *Accent* and *Quantity.* State the principal rules for the use of Accents in the Greek language. By whom were they invented? Point out the differences in the meaning, according to their accentuation of the following words:—*νομος, λευκη, καλως, πειθω, νοσων, σιγα, ειμι. ην.*

10. Give the geographical situations of Capua, Saguntum, Carthage Utica, Massilia, Tarentum, Corinth. and Rhodes.

11. *a.* How is the lack of the *Perf. Part. Act.*, in Latin, commonly supplied? *b.* Translate, according to our mode of reckoning, a. d. VI, Kal: Apr:. Id: Quinct:. Prid: Non: Mart.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.

FRIDAY, APRIL 24TH, 9 TO 12 A.M.

GREEK. { SOPHOCLES.—PHILOCTETES. / EURIPIDES.—ALCESTIS. / PLATO.—CRITO. / ÆSCHINES.—ORAT. AGAINST CTESIPHON.

THIRD YEAR.—*Examination for Honours.*

*Examiner*,.....REV. GEORGE CORNISH, B.A.

1. Translate, Sophocles, Philoctetes :—*a*. vss. 343–381 ; *b*. vss. 1163–1203.

2. *a*. vs. 30. *ὁρα—μὴ—κυρῃ* :—Schaefer reads *κυρεῖ* ;—what is the difference in meaning between the two readings? vs. 61, *μόνην—ἅλωσιν* : give the force of the case-suffix of the noun here used. vs. 73, upon what does the genitive *τοῦ στόλου* depend? vs. 173, *νοσεῖ νόσον* :—explain the grammatical construction, and also of vs. 220, *ποίας πάτρας — τύχοιμ' ἂν εἰπών*. *b*. Give the exact meaning and force of the prepositions used in the following expressions ;—vs. 60, *ἐν λιταῖς*. 90, *πρὸς βίαν*. 148. *πρὸς ἐμὴν χεῖρα*. 904. *ἔξω τοῦ φυτεύσαντος*. 963, *ἐν σοί*. 1268, *ἐκ λόγων καλῶν*. 287, *διακονεῖσθαι* :—What is the quantity of the 2nd syllable? Give the reason for this by pointing out the derivation of the word.

3. Translate, Euripides, Alcestis :—*a*. vs. 476— 506.
*b*. vs. 1008—1036.

4. Translate, Plato, Crito :—*a*. § 5. *b*. § 11.

5. Translate, Æschines, Cont. Ctes., §§ 69 and 70.

6. *a*. Write a short sketch of the progress of the Greek Tragic drama. *b*. Give your estimate of Euripides, as a dramatist, as compared with Æschylus and Sophocles. *c*. Name the Tetralogy of Euripides of which the Alcestis formed the last.

7. In what year B.C. was the speech against Ctesiphon delivered? Mention the points of policy on which Æschines and Demosthenes were at issue with one another.

FRIDAY, APRIL 24TH, AFTERNOON 3 TO 6.

GRAMMAR, HISTORY, AND GEOGRAPHY.

1. Give an account of the political geography of Greece at the period of the Persian wars.

2. Give the geographical position of;—Theræ, Platæa, Corcyra, Naupactus, Cyllene, Panormus, and Eubœa.

3. What Greek tribes colonised the western coast of Asia Minor, and what portion of it did they respectively occupy.

4. Name *a*. the three most celebrated personages; *b*. the three most celebrated expeditions of the Heroic Age. *c*. Give a short account of each.

5. How does the word τύραννος differ in meaning from the English word *Tyrant*? Name the principal τύραννοι of Grecian History and the states where they ruled. Explain the terms *Oligarchy*, *Democracy*, and *Timocracy*.

6. What were the qualifications of birth requisite for citizenship at Athens? What alteration in the law, on this subject, is said to have been made in the time of Pericles, and why?

7. Give the date of the accession of Philip. Between what powers did the Sacred War commence? What reasons did Philip assign for his interference? What advantages did he gain by his termination of it? By what decisive battle did Philip completely establish the supremacy of Macedonia over the other states of Greece?

8. State the character, composition, and object of the Amphictyonic Council.

9. Who was the first Dictator at Rome; and on what occasion was he appointed? When was the Consulship first thrown open to the *Plebeians*? What were the powers of the Tribuni Plebis?

10. Give the dates of the following events:—The expulsion of the Tarquins; taking of Rome by the Gauls; defeat of Pyrrhus; the second Punic War; the destruction of Carthage; the conspiracy of Catiline.

11. Distinguish between the use of the pronouns, *Aliquis*, *Quidam*, *Quisquam*, and illustrate by examples.

12. Enumerate the cases governed by the prepositions διά, παρά, and πρός, respectively, and state their differences of meaning with the different cases.

13. *a*. Give instances of verbal adjectives in—ικος; what construction do they take when *transitive* in signification? How do you express *comparison* in Greek? *b*. What is the construction with verbs that signify *emotions*, *perception*, &c., and with the verbs λανθάνω, φθάνω, and τυγχάνω. How may these verbs be rendered into English?

14. State and explain the difference in meaning between the construction of ἵνα, ὡς, and ὅπως, with the Indicative, Subjunctive, and Optative.

# McGILL UNIVERSITY, MONTREAL.

EXAMINATION FOR B. A. HONOURS IN CLASSICS, 1863.
THURSDAY, APRIL 23RD, MORNING 9 TO 12.

## GREEK AND LATIN PROSE COMPOSITION.

1. Translate into Greek :—

"I wish also to briefly recapitulate his virtues, in order that my eulogy may be more readily remembered. Agesilaus raised temples even in an enemy's land, considering that it was right to conciliate the gods no less in a hostile, than in a friendly country. Suppliants to the gods he never forced, even if enemies; thinking it was inconsistent to call those who steal from temples sacrilegious, and yet to hold those who tear suppliants from altars religious. He, indeed, never ceased declaring that he thought the gods were fully as well pleased with holy deeds, as with sacred temples. And whenever he was prosperous, he did not look down upon men, but felt grateful to the gods. He offered more sacrifices when sanguine, than prayers when anxious. It was his wont, too, to seem cheerful when apprehensive, and subdued when prosperous. Of his friends he welcomed most cordially, not the most powerful, but the most zealous; and he hated, not the man who retaliated illtreatment, but any one who showed himself ungrateful for kindness. He rejoiced, furthermore, at seeing the sordid man reduced to poverty, and in making the just man rich, inasmuch as he was desirous to render justice more profitable than injustice."

2. Subject for an Essay in Latin Prose :—

The political and social condition of Athens at the beginning of the Peloponnesian War.

THURSDAY, APRIL 23RD, AFTERNOON 3 TO 6.

Latin
- PLAUTUS.—TRINUMMUS.
- TERENCE.—ADELPHI.
- TACITUS.—HIST. BOOK I.
- CICERO.—EPP. AD ATTICUM, BOOK I.
- LUCRETIUS.—BOOKS V. AND VI.

*Examiner*, ..... REV. GEORGE CORNISH, B.A.

1. Translate, Tacitus, Hist. I. *a*. Chaps. 27-28. *b*. chap. 51.

2. Write a short critique on the peculiar merits of Tacitus as an historical writer; and also state the principal objections that are brought against his style of composition.

3. Translate, Plautus, Trinum. *a*. Act II., Sc. 1; and *b*. Act IV., Sc. 4.

4. Translate, Terence, Adelphi, Act I., Sc. 1.

5. Translate, Cicero, Epp. ad Att., Ep. 11.

6. Translate, Lucretius, *a*. V. vss. 551-574; and *b*. VI. vss. 694-711.

7. Point out any old grammatical forms that occur in the above extracts from Plautus and Lucretius, and write explanatory notes on them.

8. Give a short historical account of the species of Roman poetry called *Satira*. What is the etymology of the word?

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—THURSDAY, APRIL 23RD, MORNING 9 TO 12.

THIRD YEAR—*Examination for Honours.*

## GREEK AND LATIN PROSE COMPOSITION.

*Examiner*, ..... .....REV. GEORGE CORNISH, B.A.

1. Translate into Greek :—

"Meanwhile Charles, satisfied with the easy and almost bloodless victory which he had gained, and advancing slowly with the precaution necessary in an enemy's country, did not know yet the extent of his own good fortune. But at last a messenger, dispatched by the slaves, acquainted him with the success of their noble effort for the recovery of their liberty; and, at the same time, deputies arrived from the town, in order to present him the keys of their gates, and to implore his protection from military violence. While he was deliberating concerning the proper measures for this purpose, the soldiers, fearing that they should be deprived of the booty which they had expected, rushed suddenly, and without orders, into the town, and began to kill and plunder without distinction. It was then too late to restrain their cruelty, their avarice, and licentiousness. All the outrages of which soldiers are capable in the fury of a storm, all the excesses of which men can be guilty when their passions are excited, were committed."

2. Translate into Latin :—

"Trajan was ambitious of fame; and, as long as mankind shall continue to bestow more liberal applause upon their destroyers than on their benefactors, the thirst of military glory will ever be the vice of the most exalted characters. The praises of Alexander, transmitted by a succession of poets and historians, had kindled a dangerous emulation in the mind of Trajan. Like him, the Roman Emperor undertook an expedition against the nations of the east; but he lamented, with a sigh, that his advanced age scarcely left him any hopes of equalling the renown of the son of Philip. Yet the success of Trajan, however transient, was rapid and specious. The degenerate Parthians, broken by intestine discord, fled before his arms. He descended the river Tigris in triumph, from the mountains of Armenia to the Persian Gulf. He enjoyed the honour of being the first, as he was the last, of the Roman generals who ever navigated that remote sea. His fleets ravaged the coasts of Arabia, and Trajan vainly flattered himself that he was approaching towards the confines of India. Every day the astonished senate received the intelligence of new names and new nations, that acknowledged his sway."

THURSDAY, APRIL 23RD AFTERNOON 3 TO 6.

LATIN. { LIVY.—BOOK XXI.
CICERO.—PRO MURENA.
CICERO.—DE SENECTUTE.
TERENCE.—ANDRIA.

1. Translate Livy, Bk. XXI. *a*. Chap. 27;—and *b*. Chap. 60.

2. Translate, Cicero, Pro Murena;—*a*. Chap. 15;—and *b*. Chap. 30.

3. Translate, Cicero, De Senectute;—Chap. 9.

4. Translate, Terence, Andria;—*a*. Act II. Sc. 2; and *b*. Act IV. Sc. 2.

5. Institute a comparison between Livy and Tacitus, in respect of their characters and qualifications as historians. Also point out what you regard as the most striking points of difference in their language, style, and treatment of subject. Give Juvenal's description of Hannibal.

6. *a*. Classify and enumerate the writings of Cicero. *b*. "*Qui in prima cavea spectat*":—to what custom is allusion here made? Name the law, and its author, on which it was founded, and quote any passages you may remember from Juvenal and Horace on the same subject.

7. "Seneca Livium * * qui fabulam docuisset":—in connection with this, state for what purpose, and from whence, stage plays were introduced into Rome.

8. Point out the peculiarities of Terence as regards his language and style.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—THURSDAY, APRIL 9TH, 3 TO 5 P.M.

## HISTORY.—HISTORY OF ROME.

### FIRST YEAR.

*Examiner*,.....REV. GEORGE CORNISH, B.A.

1. Give the date of the foundation of Rome, and also of the establishment of the Republic. Write down the names of the seven kings, with a short account of the constitution of Rome under their rule.

2. What power did the Roman law give the creditor over an insolvent debtor? Explain the mutual relations and obligations of the *patronus* and the *cliens*. Give the etymology of the terms.

3. Write short notes respecting the following personages of early Roman history:—Porsenna, Publicola, Publilius Volero, Ap. Claudius, Cincinnatus.

4. Give an account of the several secessions of the Plebs from Rome, and of the course of legislation by which their social and political condition was improved.

5. Explain the composition, functions and powers of the Comitia Curiata, Centuriata, and Tributa.

6. Write a short account, with dates, of the principal events and leaders of the three Punic Wars.

7. Mention the most important of the wars by which Rome made herself mistress of Italy.

8. What important events occurred in the years 216, 201, 197, and 146, B.C.? Change these dates into A. U. C.

9. Under what circumstances did the following countries become Roman provinces:—Sicilia, Sardinia, Africa, Achaia, Macedonia?

10. Give a general account of the state of society in Rome during the last century of the Republic, and point out the leading causes to which the overthrow of the Republican form of government may be attributed.

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# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATONS, 1863.—WEDNESDAY, APRIL 15TH, 10 P.M. TO 1 P.M.

## EUCLID—ARITHMETIC.

FIRST YEAR—*Ordinary Examination.*

*Examiner,*..... ALEXANDER JOHNSON, LL.D.

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

2. On a given right line, construct a paralellogram equal to a given rectilinear figure, and containing an angle equal to a given one.

Construct one also equal to the difference of two given rectilinear figures.

3. Divide a given right line so that the rectangle under the whole line and one segment shall be equal to the square of the other segment. If from the greater segment, a part equal to the less be cut off, the greater segment will be cut in extreme and mean ratio.

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

5. If a line be drawn bisecting the vertical angle of a triangle, it will divide the base into segments proportional to the coterminous sides.

Show that this is also true, if it bisect the *external* vertical angle.

6. Find a mean proportional between two given right lines.

7. Find value of $(\frac{2}{3} + 1\frac{1}{5} - \frac{1}{8}) \times (\frac{5}{6}$ of 2).

8. Reduce $\frac{3}{4}$ of 5s 6d to the decimal of £1 cy., and convert the result into dollars and cents.

9. Extract the square root of 2 to six places of decimals.

10. If $100 in Canadian bank-notes be worth $103.50 in United States silver, what is the value of 367 U. S. silver dollars in Canadian currency?

11. Find the interest on $650 at 6 per cent. for 3 years and 8 months.

12. If the length of the line given in question 3 be 100 feet, what is the length of the greater segment?

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—THURSDAY, APRIL 16TH, 10 A.M. TO 1 P.M.

## TRIGONOMETRY.—ALGEBRA.

FIRST YEAR.—*Ordinary Examination.*

*Examiner*,..... ALEXANDER JOHNSON, LL.D.

1. Define the two units of angular measure ordinarily employed and find their ratio.

2. Define the sine, cosine and tangent of an arc and an angle respectively, and find a formula connecting these three functions of the angle.

3. Calculate the values of sine and cosine of 30° and 45°.

4. Prove $\sin(A - B) = \sin A \cos B - \cos A \sin B$.

Hence calculate sin 15° to 3 decimal places.

5. Prove $\dfrac{\sin A + \sin B}{\sin A - \sin B} = \dfrac{\tan \frac{1}{2}(A + B)}{\tan \frac{1}{2}(A - B)}$.

6. The hypotenuse and one side of a right angled triangle are 125 and 73 yards respectively; calculate the angles.

7. Solve the equation $ax^2 + bx + c = 0$.

8. Solve the equations:

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

$$a + x + \sqrt{2ax + x^2} = b.$$

$$2x + 3y = 9 \text{ and } 3x - 5y = 7.$$

9. Find the time between 5 and 6 o'clock when the hour and minute hands are together.

10. Find the G. C. M. of $20x^4 + x^2 - 1$, and $25x^4 + 5x^3 - x - 1$.

11. Reduce to simplest form or lowest terms:—

$$\frac{3x-1}{24} - \frac{3x-5}{24} + \frac{5}{6} \text{ and } \frac{x^2 + (a+c)x + ac}{x^2 + (b+c)x + bc}.$$

12. Divide $x^6 - a^6$ by $x^3 + 2ax^2 + 2a^2x + a^3$.

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# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—THURSDAY, APRIL 23RD, 10 A.M. TO 1 P.M.

## GEOMETRY.

FIRST YEAR—*Honour Examination.*

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. If two circles, $X$ and $Y$, be described, cutting three given circles, $P$, $Q$, $R$, and if two triangles, $A\ B\ C$, $A'\ B'\ C'$, be formed, whose sides coincide with the common chords found by taking $X$ and $Y$ respectively; with the three given circles, the points of intersection of the corresponding sides will lie in one right line.

2. The six centres of similitude of three circles taken in pairs lie three by three on four right lines.

3. Inscribe a triangle in a circle so that its three sides may pass through three given points.

4. Prove by reciprocation, that if three pairs of tangents be drawn to a circle from three points in a right line, any seventh tangent will be cut in involution.

5. If a hexagon be inscribed in a circle, the intersections of the opposite sides lie in one right line. Prove this, and examine what the theorem becomes when the hexagon reduces to a pentagon, a quadrilatered, and a triangle respectively.

6. Given, a point and a circle, any right line through the point is cut harmonically by the circle and the polar of the point.

7. Each of the three diagonals of a complete quadrilateral is cut harmonically by the other two.

8. Given, the base of a triangle, and the sum of $m$ times the square of one side, and $n$ times the square of the other, find the locus of the vertex.

9. The feet of the perpendiculars of a triangle, and the middle points of the sides lie on the same circle.

10. Inscribe a square in a triangle.

11. The three perpendiculars of a triangle meet in a point.

12. Given base, difference of base angles, and difference of sides of a triangle, construct it.

# McGILL COLLEGE, MONTREAL.

SESIONAL EXAMINATIONS, 1863.—FRIDAY, APRIL 24TH, 10 A. M. TO 1 P. M.

## ALGEBRA.

FIRST YEAR.—*Honour Examination.*

*Examiner*, ..... ALEXANDER JOHNSOX, LL.D.

1. Given the first term $a$ and $r$ the common ratio of a geometrical series, find the sum of $n$ terms.

2. If $r$ be a fraction, find the sum of the series ad infinitum, stating exactly what is meant by this phrase.

2. Prove that the arithmetical, geometric, and harmonic means between any two numbers are in geometrical progression.

3. Find the number of combinations of $n$ things taken $r$ together.

4. Calculate the number of different triangles into which a polygon of $n$ sides may be divided by joining its angular points.

5. Prove that

$$\log_e u = 2\left\{\frac{u-1}{u+1} + \tfrac{1}{3}\left(\frac{u-1}{u+1}\right)^3 + \tfrac{1}{5}\left(\frac{u-1}{u+1}\right)^5 \text{ \&c.}\right\}$$

6. Apply the method of Indeterminate Coefficients to find the value of $y$ in a series of ascending powers of $x$ from the equation

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

7. Find the sum of the series $1^2 + 2^2 + 3^2 + \text{\&c.} + n^2$.

8. Find the amount of a given sum in any time at compound interest, the interest being payable yearly. Thence determine in what time any sum will double itself at any given rate of interest.

9. Apply the Binomial Theorem to find $(1.01)^{-\frac{3}{2}}$ to six places of decimals.

10. The $n$th term of an Arithmetical Progression is $\frac{1}{6}(3n - 1)$, prove that the sum of $n$ terms is $\frac{n}{12}(3n + 1)$, and find the series.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—WEDNESDAY, APRIL 14TH, 10 A.M. TO 1 P.M.

## EUCLID.—ALGEBRA.

SECOND YEAR.—*Ordinary Examination.*

*Examiner*, ..... ALEXANDER JOHNSON, LL.D.

1. The square that may be described upon the hypotenuse of a right-angled triangle is equal to the sum of the squares on the sides.
Find a square equal to the sum of any number of given squares.

2. Construct a square equal to a given rectilinear figure.

3. Construct an isosceles triangle, each of whose base angles shall be double the vertical.

4. Find a third proportional to two given lines.

5. Equal parallelograms which have an angle in each equal have the sides about the equal angles reciprocally proportional.

6. Construct a figure similar to a given one and equal to another.

7. Solve the equations

$$x(y+z) = 1\,;\; y(x+z) = 1\,;\; z(x+y) = 1$$

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

$$\frac{x}{2} - \frac{x}{3} - \frac{5x - \frac{7}{2}}{4} = 8$$

8. Find the G. C. M. of $2x^3 + x^2 - 8x + 5$ and $7x^2 - 12x + 5$.

9. Reduce to the simplest form $\dfrac{x + \frac{1}{4}(x-2)}{\frac{3x-8}{\frac{3}{4}\left(\frac{x-2}{12x-32}\right)}}$

10. A person distributed $10 among 42 persons giving to some, shillings, and to others, quarters, how many were there of each?

11. Divide $x^3 - px^2 + qx - r$ by $x - a$.

12. Prove the rules for signs in multiplication.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—THURSDAY, APRIL 16TH, 10 A.M. to 1 P.M.

## TRIGONOMETRY.—CONIC SECTIONS.—SOLID GEOMETRY.

SECOND YEAR.—*Ordinary Examination.*

*Examiner*, ..... ....ALEXANDER JOHNSON, LL.D.

1. The sides of a triangle are 33, 21, and 25 yards respectively; find the angles.

2. The area of any triangle is equal to $\frac{1}{2}\ bc \sin A$.

3. Prove $\tan (A \pm B) = \dfrac{\tan A \pm \tan B}{1 \mp \tan A \tan B}$.

4. State and prove the propositions for the solution of right angled triangles.

5. If the diameter of the moon be 2153 miles and its distance 237000 miles, calculate the angle it subtends at the earth.

6. In order to find the height of an object above a horizontal plane, a straight line 150 feet long is measured directly out from its base, and the angles of elevation at its two extremities are found to be 57° 35′ and 63° 22′ 10″; calculate the height.

7. The tangents at the extremities of a focal chord of a parabola intersect at right angles in the directrix.

8. Draw a tangent to a parabola from an external point.

9. If $QV$ be an ordinate to the diameter $PV$ of a parabola, $P$ being the vertex of that diameter, and $S$ being the focus, prove $QV^2 = 4\ SP.\ PV$.

10. Define the ellipse, and prove the fundamental property of its tangent.

11. Show that a right line which is perpendicular to two right lines in a plane is perpendicular to every other line in that plane.

12. Define a right cone.

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# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—THURSDAY, APRIL 23RD, 10 A.M. TO 1 P.M.

## ANALYTIC GEOMETRY—CALCULUS.

SECOND YEAR—*Honour Examination.*

*Examiner*, .....ALEXANDER JOHNSON, LL.D.

1. Prove that the three perpendiculars of the triangle formed by three tangents to a parabola intersect on the directrix.

2. Find the parameter of the parabola

$$(ax + by)^2 + Dx + Ey + F = 0$$

3. Prove that the rectangle under the perpendiculars let fall from the foci on any tangent to an ellipse is constant.

4. Find the condition that any line $\frac{x}{m} + \frac{y}{n} = 1$ should touch the conic section $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$.

5. Find the conditions that the general equation of the second degree should represent a circle, and if they be fulfilled, determine the centre and radius.

6. Given base and ratio of sides of a triangle, find the locus of its vertex.

7. Find the equation of a right line passing through a given point and making a given angle with a given line.

8. Define a differential coefficient. Investigate those of $\sin x$ and $a^x$ respectively.

9. Differentiate $e^{ax} \sin rx$; $x^{\sin x}$; $\frac{\{(x+1)(x+3)^9\}^{\frac{1}{3}}}{(x+2)^4}$.

10. Prove Leibnitz's theorem :—

$$\frac{d^n(uv)}{dx^n} = v\frac{d^nu}{dx^n} + n\frac{dv}{dx}\frac{d^{n-1}u}{dx^{n-1}} + \&c.$$

11. Integrate $\int \frac{dx}{1+x+x^2}$; $\int dx \tan x$; $\int dx\, x \log x$.

12. Explain fully the method of integrating rational fractions in the various cases, and obtain general formulas.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—FRIDAY, APRIL 24TH, 10 A.M. to 1 P.M.

## THEORY OF EQUATIONS.—TRIGONOMETRY.

SECOND YEAR.—*Honour Examination.*

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. State and prove Sturm's Theorem.

2. Apply it to determine the number and situation of the real roots of the equation

$$x^4 - 2x^3 - 7x^2 + 10x + 10 = 0$$

3. Give Ferrari's solution of a Biquadratic Equation.

4. Solve the recurring equation

$$4x^6 - 24x^5 + 57x^4 - 73x^3 + 57x^2 - 24x + 4 = 0$$

5. State and prove Descarte's rule of signs.

6. The roots of the following equation are in harmonical progression: find them.

$$x^3 + \tfrac{13}{24}x^2 + \tfrac{9}{96}x + \tfrac{1}{192} = 0$$

7. Find the sum to $n$ terms of the series

$$\sin\alpha + \sin(\alpha+\delta) + \sin(\alpha+2\delta) + \&c.$$

8. Prove $\sin\alpha = \alpha - \dfrac{\alpha^3}{1.2.3} + \dfrac{\alpha^5}{1.2.3.4.5} - \&c.$

9. Assuming Gregory's series for an arc in terms of its tangent, calculate thence by the aid of Machin's formula the value of $\pi$ to four places of decimal.

10. Prove that the area of a spherical triangle is proportional to the excess of the sum of its angles above two right angles.

If the excess were 4° on a sphere whose radius is 4000 miles, what would be the area in square miles.

11. The sides $a$ and $b$ of a spherical triangle are 56° 19′ 24″.5 and 84° 44′ 32″, and the angle $A$ is 18° 32′ 54″: find the remaining side.

12. Prove $\cos A = \dfrac{\cos a - \cos b \cos c}{\sin b \sin c}$.

# McGILL COLLEGE, MONTREAL.

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SESSIONAL EXAMINATIONS, 1863.—WEDNESDAY, APRIL, 15TH, 10 A.M. T 1 P.M.

## ASTRONOMY—OPTICS.

THIRD YEAR.—*Ordinary Examination.*

*Examiner*,..... ALEXANDER JOHNSON, LL.D.

1. State the proposition for the composition of rotations and apply it in explaining Foucault's Pendulum proof of the earth's rotation.

2. Prove that the altitude of the pole at any place is equal to the latitude of the place.

3. Define the *equation of time*, and describe any method by which mean time at any place may be found.

4. Give a general explanation of the phenomena of the tides.

5. Draw diagrams showing the positions of the principal circles of the celestial sphere with regard to the horizon at the pole, the equator, lat. 66° 32′ north, and latitudes less than 66° 32′ north, and hence explain the different lengths of day and night at these places.

6. The periodic time of the Earth being $365^d.25$ nearly, and the interval between two inferior conjunctions of Mercury being $115^d.88$, show how the periodic time of Mercury may be found, and calculate it.

7. Explain the formation of images by a plane mirror, having first given a geometrical investigation for the image of a point.

8. Find the deviation produced by a glass prism upon a ray incident nearly perpendicularly.

9. Describe the eye as an optical instrument, and explain the physical causes of short and long sight respectively.

10. Find the magnifying power of the astronomical telescope, previously describing the instrument.

11. If light diverge from a point 20 inches from a convex lens of 10 inches focus, find conjugate focus.

12. Investigate a formula for the magnifying power of a convex lens, being given its focal length, and the distance of distinct vision.

# McGILL COLLEGE, MONTREAL.

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SESSIONAL EXAMINATIONS, 1863.—WEDNESDAY, APRIL 15TH, 3 TO 6 P.M.

## ELECTRICITY AND MAGNETISM—ACOUSTICS.

THIRD YEAR.—*Ordinary Examination.*

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. State rules to be observed in the construction of lightning conductors, and the reasons for them.

2. How has the identity of frictional and Voltaic electricity been established? State their leading differences.

3. Give a description of Groves's battery, with the theory of its action. What is the effect of the amalgamation of the zinc? What difference would be made in the arrangement of a given number of cells according as *intensity* or *quantity* effects were desired.

4. What is meant by the *reduced length* of a compound circuit?

5. Describe a magneto-electric machine, and give the theory of its action.

6. State Ampere's theory of Magnetism, and some of the experiments on which it was founded.

7. Describe the methods of producing artificial magnets by single touch and double touch respectively.

8. How is the magnetic intensity at any place determined? Define the terms magnetic meridian, magnetic equator, declination, and dip.

9. Describe the nature of a sound-wave in air, and give the proofs by which its existence is known.

10. Describe the experiments by which the velocities of sound in *air* and in *water* were determined, stating the results. In the latter case, describe the apparatus by which the sound produced under water was heard at a great distance in air.

11. Describe Savart's apparatus for determining the number of vibrations belonging to the different musical notes, and state some of the results obtained with it.

12. What is the physical cause of harmony? Give the proof.

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# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—THURSDAY, APRIL 16TH, 10 A.M. TO 1 P.M.

## MECHANICS.—HYDROSTATICS.

THIRD YEAR.—*Ordinary Examination.*

*Examiner*, ..... ALEXANDER JOHNSON, LL.D.

1. Find the time of oscillation of a simple pendulum.

2. Assuming the general formula for the centrifugal force, show that the component of it which diminishes gravity at any part of the Earth's surface varies as the square of the cosine of the latitude.

3. The spaces described by a falling body in successive seconds are proportional to the series of odd numbers.

4. In a balance with unequal arms, the true weight of any body is a geometric mean between its apparent weights when placed in the two scales.

5. State and prove the condition of equilibrium in the Lever in the most general case.

6. If a body be suspended from a fixed point, it will not be in equilibrium, unless the line joining the point of suspension with the centre of gravity be vertical.

7. Describe some experiments shewing that the atmosphere has weight and exerts pressure in all directions.

8. Describe the construction of the *mercurial* barometer, and state the nature of the corrections that must be applied to any observations. What is the principle of the *aneroid* barometer?

9. If a homogeneous body float in a liquid, its whole volume will be to that of the part immersed, in the inverse ratio of the specific gravities of the body and of the liquid.

10. A piece of larch-wood weighs 50 grains; it is sunk in water by attaching a brass weight; the compound body then weighs 42.88 grs.; find the specific gravity of the larch if the weight of the brass alone when immersed is 87.22.

11. Describe the forcing-pump.

12. How is the height of a mountain found by a barometer. State the method in detail.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—THURSDAY, APRIL 23RD, 10 A.M. TO 1 P.M.

## ASTRONOMY—OPTICS.

THIRD YEAR—*Honour Examination.*

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. Show that the equation of time vanishes four times a year.

*a*. Find when it is a maximum.

2. Given the geocentric, show how the heliocentric place of a planet may be found.

3. Find the precession in right ascension and declination of a given star.

4. Find when Venus is brightest.

5. If $P$ be the horizontal parallax, $Z$ the *true* zenith distance, and $p$ the parallax of a heavenly body, prove

$$p = \sin P \sin Z + \tfrac{1}{2} \sin^2 P \sin 2Z + \tfrac{1}{3} \sin^3 P \sin 3Z + \&c.$$

*a*. Calculate the parallax of the moon when

$$P = 60' 41''.5 \text{ and } Z = 79° 19' 29''.33.$$

6. Find the latitude and longitude of a star whose R. A. is 5h. 5m. 42·03s, and N. Dec. is 45° 50′ 22″. 4, the obliquity of the ecliptic being 23° 27′ 25″. 47.

7. At 1h. 14m. 11. 6s. apparent time, the true altitude of the sun was 33° 41′ 35″. 5, and his declination 5° 15′ 28″. 0 S., find the latitude of the place.

8. Find how much the time of a star's rising is altered by refraction.

9. Find the position and dimensions of the least circle of aberration for a pencil of rays reflected from a spherical surface.

10. A small pencil is obliquely refracted at a spherical surface; find the distances of the foci from point of incidence of the axis.

11. Find the geometrical focus of a pencil of rays after direct refraction through a series of lenses in contact whose axes are coincident.

12. Investigate the order of the colours in the primary and in the secondary rainbow.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.

FRIDAY, APRIL 24TH, 10 A.M. TO 1 P.M.

MECHANICS—HYDROSTATICS.

THIRD YEAR.—*Honour Examination.*

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. Find the equations of equilibrium of an inextensible string acted on at all its points by given forces; and show that if $m$ be the mass of the unit of length of the string, the tension is given by the equation

$$T = \left(\int m\ X\,ds\ \right)^2 + \left(\int m\ \ Y\,ds\ \right)^2 + \left(\int m\ Z\,ds\ \right)^2$$

2. State and prove Guldin's properties of the centre of gravity.

3. A homogeneous solid hemisphere is capable of rolling on its curved surface upon a horizontal plane, the friction being such as to prevent all sliding; find the moment of the couple which will keep it at rest with its base inclined at an angle of 30° to the horizon.

4. Find the position of equilibrium of a uniform beam, one end of which rests against a vertical plane, and the other on the interior surface of a given hemisphere.

5. Find the differential equation for the motion of a particle acted on by a central force

$$\frac{d^2u}{d\theta^2} + u = \frac{P}{h^2u^2}$$

6. A particle is placed a given distance from a fixed point to which it is attracted by a force varying inversely as the square of the distance, find its subsequent motion.

7. A particle is projected vertically upwards in a medium in which the resistance is equal to $kv^2$; if $V$ be the velocity of projection, find the velocity when it returns to its starting point.

8. A body of known elasticity falls from a given altitude above a hard horizontal plane, and rebounds continually till its whole velocity is destroyed; find the whole space described.

9. Investigate the formula for the determination of heights by the barometer

$$z'-z = \frac{k}{g} log.\ (1 + at)\ log.\ \frac{h}{h'}\ \frac{(1-\theta\tau)}{(1-\theta\tau')}$$

10. A mass of fluid is in equilibrium under the action of given forces, prove the following equation for determining the pressure at any point, $\rho$ being the density;

$$dp=\rho\ (Xdx + Ydy + Zdz.)$$

11. Find the centre of pressure of a triangle immersed vertically to any depth beneath the surface of a fluid, the base of the triangle being horizontal, and its verter being the point of the triangle which is nearest the surface.

12. A cylinder, having its axis vertical, is filled with fluid, the density of which varies directly as the depth; find the whole pressure on the surface of the cylinder.

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# McGILL UNIVERSITY, MONTREAL.

## B. A. ORDINARY EXAMINATIONS, 1863.

WEDNESDAY, APRIL 15TH, 10 A.M. TO 1 P.M.

### ASTRONOMY—OPTICS.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. Give the proof of the Annual Revolution of the Earth derived from Aberration.

2. State Kepler's three Laws, and describe the manner in which the first may be tested by observation.

3. If the north polar distance of the star $\eta$ Ursæ Majoris be $39^{\circ}\ 56'\ 48''$, and the latitude of Naples be $40^{\circ}\ 50'$, how near to the horizon is it possible for the star to approach?

4. Explain the principle of the lunar method of finding the longitude. When it is $7^{h}\ 30^{m}$ in the morning at a place whose longitude is $81^{\circ}\ 30'$ W., it is $2^{h}\ 20^{m}$ in the afternoon at another place. Find the longitude of the latter, East or West.

5. Knowing the earth's radius, the latitudes of two observatories on the same meridian, and the moon's zenith distances as observed from them at the same time, show how the distance of the moon may be calculated.

6. State the circumstances under which an eclipse of the sun will be *partial*, *annular*, or *total*. If the moon's orbit coincided with the ecliptic, how often would solar eclipses occur?

The diameters of the sun and moon being 888000, and 2153 miles respectively, and the distance of the moon from sun, being about 95000000 miles, find the average length of the moon's shadow.

7. Investigate a formula connecting the positions of an object and image for a concave mirror, and trace the changes they undergo as the object moves in from a great distance to the mirror.

8. Define *dispersive power*. Calculate the dispersive power of water, the refractive index of the red rays being 1.330, and of the violet 1.342.

9. State and prove the principle of Hadley's Sextant.

10. Describe the Newtonian telescope, and find its magnifying power.

11. Find the *centre* of a lens.

12. Find the principal focus of a double convex lens of glass ($\mu = \frac{3}{2}$) whose curvatures are equal.

# McGILL UNIVERSITY, MONTREAL.

B. A. ORDINARY EXAMINATIONS, 1863.

THURSDAY, APRIL 16TH, 10 A.M. TO 1 P.M.

## MECHANICS.—HYDROSTATICS.

*Examiner*, ..... ALEXANDER JOHNSON, LL.D.

1. Two imperfectly elastic spheres of given masses, move with given velocities in the same straight line and come into collision, determine their velocities afterwards.

2. Assuming the formula for the time of oscillation of a pendulum, find the clock error produced in a day by a change of length.
Define the *length* of a compound pendulum.

3. The velocity acquired by a body in running down an inclined plane is equal to the velocity acquired in falling down the height of the plane.

4. Describe Smeaton's Pulley, and find the ratio of the power to the resistance.

5. Find the ratio of the power to the resistance in the inclined plane when the power is applied parallel to the length of the plane.

6. Show that the resultant of the forces $P$ and $Q$ acting on the same point at the angle $\phi$ is given by the equation
$R^2 = P^2 + Q^2 + 2\,P\,Q\,cos.\,\phi$.

7. If 100 cubic inches of air have a temperature 32° Fah. and a pressure 29.922 in.; and if the temperature become 60°, and the pressure 30 in.; calculate the volume. Prove any formula you employ.

8. If 20 lbs. of cork (sp. gr. = 0.24) be immersed in water with what force will it rise to the surface ?

9. What is the dynamical measure of this force ?

10. Describe the suction pump and determine the effective pressure on the piston.

11. A raft 30 yards long by 20 yards broad, and 16 inches deep, is made of wood whose specific gravity is 0.6 ; with what weight may it be loaded before it sinks.

12. Describe the construction of the air-pump, and show that it cannot produce a perfect vacuum.

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Arts.

B. A. HONOUR EXAMINATIONS IN MATHEMATICS AND NATURAL PHILOSOPHY.

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TUESDAY, APRIL 7TH, 1863.—9 A. M. TO 1 P. M.

LUNAR THEORY.—PRECESSION AND NUTATION.

*Examiner*, .....ALEXANDER JOHNSON, LL.D.

1. Form the differential equations of the Moon's motion, taking the longitude for independent variable.

2. Calculate the values of $P$, $T$, and $S$, to the second order of approximation.

3. Integrate the differential equations to the first order, and interpret the results.

4. Find the value of $\frac{T}{h^2 u^3}$ to the degree of approximation necessary to determine the relation between the time and longitude to the second order.

5. Given $u = a\,[1 - \frac{3}{4}k^2 - \frac{1}{2}m^2 + e\cos(c\theta - \alpha) - \frac{1}{4}k^2\cos 2(g\theta - \gamma) + m^2\cos\{(2-2m)\theta - 2\beta\} + \frac{15}{8}me\cos\{(2-2m-c)\theta - 2\beta + \alpha\} - \frac{3}{2}m^2e'\cos(m\theta + \beta - \zeta) + \frac{15}{4}me^2\cos\{(2-2m-2c)\theta - 2\beta + 2\alpha\}]$ find the time in terms of the longitude.

6. Hence find the longitude in terms of the time.

7. From this last series determine the effect of the Evection on the position of the apse and the eccentricity of the orbit.

8. If a body, acted on by a central force, revolve in an orbit nearly circular, calculate the apsidal angle.

Hence show that the mean central disturbing force of the sun will make the line of apsides of the Moon's orbit progress.

9. Give Newton's investigation of the motion of the nodes.

10. Determine the effects of the disturbing force on the motion of the apsides, in Sir John Herschel's manner.

11. Form the differential equations of rotation of the Earth attracted by the Sun, and state the circumstances which enable us to integrate them.

12. Integrate them so as to obtain the Solar Precession of the equinoxes.

*Vivâ Voce Examination from* 3 *to* 5 *p.m.*

# McGILL COLLEGE, MONTREAL.

## B. A. HONOUR EXAMINATIONS IN MATHEMATICS AND NATURAL PHILOSOPHY.

SATURDAY, APRIL 18TH, 1863.—9 A.M. TO 1 P.M.

### MECHANICS.

*Examiner*,.....ALEXANDER JOHNSON, LLD.

1. Investigate the equations of motion for the rotation of a rigid body round a fixed point under the action of given forces.

2. Investigate a formula for determining the velocity of a cannon-ball by means of the Ballistic Pendulum.

3. Prove that the resultant attractions of two confocal ellipsoidal shells on the same external point are in the same direction and proportional to the masses; the law of attraction being that of the inverse square.

4. Find expressions for the three components of the attraction of a homogeneous ellipsoid on an *external* point, for the same law.

*a*. Integrate them for an oblate ellipsoid of revolution.

5. A mass of homogeneous fluid, the particles of which attract one another according to the above law, rotates uniformly about an axis through its centre of gravity; find the equation which determines the ratio of the axes of the ellipsoid of revolution satisfying the conditions of equilibrium.

6. In the motion of a fluid, let the accelerating forces $X$, $Y$, $Z$, be such that $Xdx + Ydy + Zdz$ is the exact differential of some function of the co-ordinates; then if $udx + vdy + wdz$ be an exact differential at any instant, it will be so throughout the motion.

7. Find the general equations for the vibrations of an elastic fluid.

8. Investigate a formula for the velocity of sound in air.

9. Determine the motion of a particle acted on by given forces and constrained to move along a given surface, when $Xdx + Ydy + Zdz$ is an exact differential.

10. A string is stretched over a smooth cylinder and lies in one plane perpendicular to the axis of the cylinder. Find the pressure on the cylinder.

11. An ellipse is placed with its major axis vertical; find the radius vector by which a particle will descend in the shortest time from the upper focus to the curve.

12. Find the radii of gyration of an ellipsoid about its axes.

*Viva Voce Examination from 2 p. m. to 4 p. m.*

# McGILL UNIVERSITY, MONTREAL.

## B. A. HONOUR EXAMINATIONS IN MATHEMATICS AND NATURAL PHILOSOPHY.

FRIDAY, APRIL 24TH, 1863.—9 A.M. TO 1 P.M.

SURFACES.

*Examiner*,..... ALEXANDER JOHNSON, LL.D.

1. Define a geodesic. Prove that the differential equation of geodesics is

$$\frac{\frac{d^2x}{ds^2}}{L} = \frac{\frac{d^2y}{ds^2}}{M} = \frac{\frac{d^2z}{ds^2}}{N} = \frac{1}{\rho}$$

where $L, M, N$, are the direction cosines of the normal at any point and $\rho$ is the radius of curvature.

2. Prove that for every point of a geodesic on a quadric $P\,D = \text{const}$; where $P$ is the perpendicular from the centre on the tangent plane at the point, and $D$ is the diameter of the quadric parallel to the tangent to the curve at the same point.

3. Define lines of curvature and find their differential equation.

4. Prove that the cuspidal edge of the developable generated by the normals along a line of curvature is a geodesic on the sheet of the surface of centres of which it lies.

5. Prove that the curvature of any normal section of a surface is equal to the sum of the curvatures of the two principal sections, multiplied respectively by the squares of the cosines of the angles which the principal planes make with the normal plane.

6. Prove that the axes of any tangent cone to a quadric are the normals to the three confocal quadrics which can be drawn through the vertex of the cone.

7. Find the equation to the surface which is constantly touched by the plane

$$lx + my + nz = v$$

being given that

$$l^2 + m^2 + n^2 = 1$$

$$\frac{l^2}{v^2 - a^2} + \frac{m^2}{v^2 - b^2} + \frac{n^2}{v^2 - c^2} = 0$$

8. Find the partial differential equation of conical surfaces.

9. If two similar quadrcs cut one another, prove that their line of intersection is a plane curve.

If four similar quadrics intersect, prove that the six planes of intersection pass all through one point.

10. Prove that the surface generated by the motion of a straight line which lies on three rectilinear directors which do not intersect, is the hyperbolic paraboloid.

11. Show that the locus of the intersection of three tangent planes at the extremities of three conjugate diameters of an ellipsoid is an ellipsoid.

12. Find the equation of the tangent cone from the point $x'\ y'\ z'$ to the ellipsoid.

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$$

13. Normals are drawn to an ellipsoid at the points where it is cut by a plane parallel to one of the coordinate planes. Show that the locus of the intersection of these normals with that coordinate plane is an ellipse.

14. If a concentric ellipsoid and hyperboloid be confocal, show that a tangent plane to the asymptotic cone of the hyperboloid will give a section of the ellipsoid having a constant area.

*Vivâ Voce Examination*—2 to 4 *p.m.*

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# McGILL UNIVERSITY, MONTREAL.

## B.A. HONOUR EXAMINATIONS IN MATHEMATICS AND NATURAL PHILOSOPHY, 1863.

WEDNESDAY, APRIL 29TH, 9 A.M. TO 1 P.M.

### CALCULUS.

*Examiner*,..... ALEXANDER JOHNSON, LL.D.

1. Investigate Monge's method of integrating the equation

$$Rr + Ss + Tt = V.$$

a. Apply it to the equation $q^2r - 2pqs + p^2t = 0$.

2. Integrate

$$(y+z+u)\frac{du}{dx} + (z+x+u)\frac{du}{dy} + (x+y+u)\frac{du}{dz} = x+y+z$$

3. Prove that the partial differential equation of the first order which results from a primitive of the form $u = f(v)$, where $u$ and $v$ are determinate functions of $x$, $y$, and $z$, is necessarily linear.

4. Integrate the simultaneous equations

$$\frac{dx}{dt} + 5x + y = \epsilon^t, \quad \frac{dy}{dt} + 3y - x = \epsilon^{2t}.$$

5. Find the condition that the equation $Pdx + Qdy + Rdz = 0$ ($P$, $Q$, $R$ being functions of $x$, $y$, $z$) may be derivable from a single primitive, and show how the complete primitive may be deduced.

6. Integrate $(a+bx)^2\frac{d^2y}{dx^2} + b(a+bx)\frac{dy}{dx} + n^2y = 0.$

7. Integrate $(1-x^2)\frac{dy}{dx} + xy = ax.$

8. Find a singular solution of the equation

$$p^2 - 2px^3 = 4x^2y,$$

and determine whether or no it is of the envelope species.

9. If $x = \epsilon^\theta$ prove

$$x^n\frac{d^n}{dx^n} = \frac{d}{d\theta}\left(\frac{d}{d\theta} - 1\right)\ldots\left(\frac{d}{d\theta} - n + 1\right)$$

10. Integrate by the symbolical method

$$\frac{d^2u}{dx^2} + \frac{d^2u}{dy^2} + \frac{d^2u}{dz^2} = 0.$$

11. Eliminate $\phi$ and $\psi$ from the equation

$$z = x\phi(z) + y\psi(z).$$

12. Transform $\frac{d^2V}{dx^2} + \frac{d^2V}{dy^2} + \frac{d^2V}{dz^2} = 0$ into a function of $r$, $\theta$, $\phi$, being given, $x = r\cos\theta$, $y = r\sin\theta\sin\phi$, $z = r\sin\theta\cos\phi$.

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# McGILL COLLEGE, MONTREAL.

## B.A. HONOUR EXAMINATIONS IN MATHEMATICS AND NATURAL PHILOSOPHY.

WEDNESDAY, APRIL 29TH, 1863.—2 TO 4½ P.M.

LIGHT.—HEAT.—ELECTRICITY.

*Examiner*,.....ALEXANDER JOHNSON, LL.D.

1. Describe M. Foucault's experiment to determine the velocities of light in air and in water respectively. State the bearing of the results on the theory of light.

2. Describe the experiment by which Sir David Brewster proved that the colours of mother of pearl were the results of interference.

3. Explain the method of determining the length of a wave of light from the phenomena of interference.

4. State Professor Haughton's laws for the elliptical polarization of reflected light.

5. Give Fresnel's theory of double refraction.

6. Give an account of Sir William Hamilton's discovery of conical refraction, and of the experimental verification by Dr. Lloyd in the case of external conical refraction.

7. What is Joule's mechanical equivalent of the unit of heat? Give a short account of his experiments. What is the dynamieal theory of heat?

8. State Newton's law of cooling. How far is it correct? State the result of the investigations of Dulong and Petit.

9. Investigate a formula for the intensity of a current of electricity from a series of couples arranged one by one.

10. Describe Foucault's experiment showing the conversion of magnetism into heat.

# McGILL COLLEGE, MONTREAL.

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SESSIONAL EXAMINATIONS, 1863.—TUESSDAY, APRIL 21ST, 10 A.M. TO 1 P.M.

## ENGLISH LITERATURE.

FIRST YEAR—*Ordinary Examination.*

*Examiner*,.....REV. DR. LEACH.

1. Explain the constructions in the expressions "the two King Williams," and "the two kings William."

2. Explain the figure called "pros to semainomenon."

3. Give the rules for the use of "more," and of the form in -er in the comparative degree.

4. In such expressions as "right and left," "bitters and sweets," "all fours,"—what circumstance determines the part of speech to which they belong?

5. Explain the different constructions of the word "self."

6. What is meant by the absolute construction of a genitive case?

7. What is the rule for determining the case of the interrogative pronoun?

8. Show why such expressions as "the thousandth and first" are incorrect.

9. Give examples of verbs naturally transitive used intransitively, and of verbs naturally intransitive used transitively.

10. What peculiarity attaches to the verb *substantive*?

11. Explain the two sorts of the government of verbs,—objective and modal.

12. Explain the cases in which words ending in *-ing*, are participial or are substantives.

13. Such expressions as "I am beaten," are present in respect of what?—aud past, in respect of what?

14. When a verb is followed by another preceded by the preposition "to," how is the construction accounted for? and how accounted for when it is not preceded by "to"?

15. Give the rule for concord of verb and nominative, when two or more pronouns of different persons and of the singular number, follow each other disjunctively.

16. State the given classification of auxiliaries, according to their inflection or non-inflectional powers.

17. Explain the true construction of such sentences as "I have built a house," "they have taken the city."

18. Have adverbs concord or government? are they convertible?

19. Explain the construction in such expressions as, "he walked a mile," "it weighs a pound."

20. State what is said of the expressions, "from whence," "from thence."

21. Is the position of prepositions, in regard to the governed nouns, generally a philological necessity? In English, is it a matter of government, or what?

22. Wherever there is a conjunction in a sentence, what else must there necessarily be?

23. What points of agreement subsist between conjunctions and the relative pronouns?

24. What part of a sentence does the relative belong to?

25. Analyse the following sentence, and express it according to the notation given:—"Justus salutis collocat omnem in Deo fiduciam, qui fulcit æquos robore, adversa cum sors intonat et in periculis liberat ab impiis, qui se et suam illi salutem credidit."

26. Translate the sentence above given into English verse or prose.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—TUESDAY, APRIL 21ST, 10 A.M. TO 1 P.M.

## ENGLISH LITERATURE.

SECOND YEAR—*Ordinary Examinrtion.*

*Examiner*,.....REV. DR. LEACH.

1. Give an account of the principal relics of the Celtic literature of Ireland, Scotland and Wales, during the Anglo-Saxon period.

2. Give an account of the principal works in Latin during the said period.

3. Give an account of the principal literary compositions in Anglo-Saxon, during the same period.

4. What are said to be the peculiar character of Anglo-Saxon literature and its causes?

5. What is the most striking feature of Anglo-Saxon versification?

6. Who were the Scalds, the Jongleurs and the Troubadours? and what their occupations?

7. What comparison, as to the amount of literary activity, may be made between the Celts, or the Anglo-Saxons, and the Danes, during the Anglo-Saxon period?

8. What causes may be assigned for the success of the Danes in their invasions of England?

9. What parts of England were occupied by the Danes, and how long did the kings of that race reign in England?

10. What was meant by Udal right among the Danes?

11. Into what three classes was the Anglo-Saxon population of England divided?

12. What (political) divisions of the land had they? what courts of justice?

13. About what time did Latin verse in rhyme come into use?

14. State, in the parts of speech inflected, the inflections in the old language that have been laid aside, and those that are retained in the present English, partially and otherwise.

15. Into what branches is the Indo-European family of languages distributed?

16. Who, after King Alfred, was the only person eminent for the cultivation of the Anglo-Saxon tongue?

17. What period during the middle ages was most distinguished for the cultivation in England of classical scholarship?

18. In what century were the literature and old language of England most materially influenced by the French literature and language?

19. What is said as to the dialect or dialects out of which the modern standard English has grown?

20. Which are the modifications of the old language that mark what is called Semi-Saxon?

21. To what time is the commencement of the period of Middle English to be referred, and who is the eminent author whose writings belong to that time?

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—MONDAY, APRIL 20TH, 1 P. M. TO 4 P. M.

## LOGIC (APPLIED).

SECOND YEAR—*Ordinary Examination.*

*Examiner,*.....REV. DR. LEACH.

1. What are the grounds of the distinction between pure and applied Logic?

2. Show by example that a judgment may be correct in form and false in matter, and that the converse of a proposition may be formally wrong and materially true.

3. The objects about which we think arrange themselves under three great divisions: which are they?

4. What is a science?

5. What are said to be the requirements which every science must meet in order to fulfil its intention?

6. In regard to the question whether a criterion of truth is possible, what is said to be the only adequate reply?

7. Explain what are meant by:—1. the principle of Contradiction; 2. the principle of Identity; 3. the principle of Excluded Middle; 4. the principle of Sufficient Reason.

8. State discriminately in what respects these four criteria are useful.

9. Give the definitions of Induction and Deduction.

10. How does it happen that infirmity of evidence attaches generally to the results yielded by the process of Induction?

11. Give the four principal questions that require answer in Applied Logic.

12. What are meant by a Law and a Theory?

13. What are we to understand by the Cause of a given event or thing?

14. Explain the following divisions of Causes, of the older writers:—1. Causes physical, moral, occasional; 2. primary and secondary; 3. principal and instrumental; 4. universal and particular; 5. total and partial.

15. When only is the Cause of any phenomenon truly assigned?

16. State the principal rules that regulate the search after Causes.

17. Explain what is meant by Anticipation in the search of Causes.

18. What is stated with regard to the nature of an Inductive Conception, and how is it distinguished from what is called Colligation?

19. Explain the nature of the Rhetorical Enthymeme.

20. Give an example of the Argument called Rhetorical Induction, and point out its infirmity.

21. In events of Chance, the probability of one out of several or many happening, is equal to what?—give the general principle of calculation.

22. What are meant by Natural Classification and Artificial Classification?

23. State in tabular form the Sources of Principles, as given.

24. Explain the terms:—Axiom, postulate, theorem, problem, thesis, hypothesis, corollary, lemma, scholium.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—MONDAY, APRIL 20TH, 10 A.M. TO 1 P.M.

## RHETORIC.

THIRD YEAR.—*Ordinary Examination.*.

*Examiner*,.....REV. DR. LEACH.

1. Reply to the objection, that appeals to the passions are an unfair mode of influencing the hearers; and show how this idea of unfairness is to be accounted for.

2. State and explain the rules for the conduct of an address to the feelings generally.

3. What is meant by the figure called climax? and give an example.

4. Explain the exaggerating and extenuating methods.

5. What *arrangement* is preferable when the object is to excite the feelings?

6. By what mode of treatment are the prejudices of party-spirit to be encountered by the orator?

7. Show in what cases the character of those who support a measure is important.

8. By what methods are passions unfavourable to the object of the speaker to be allayed or diverted?

9. When a numerous and mixed audience is to be addressed what is the best general rule for avoiding the disadvantages of too great brevity and too great prolixity of style?

10. Show that clear ideas do not necessarily imply perspicuity of expression.

11. When the object is the display of eloquence, how is it to be accounted for that the want of perspicuity is often no detriment?

12. State the principal rules that are to be attended to in the use of Metaphors.

13. State the principal characteristics of well constructed sentences.

14. Which are the two purposes whose fulfilment it is said, alone justifies the employment of Epithets?

15. What is the correct notion of copiousness of Language?

16. Whence arises the efficacy, in respect of energy, of the figure called antithesis? and describe the characteristics of what is called mock-antithesis.

17. State the rules for the proper employment of the Interrogative form of Speech.

18. How is elegance of style distinguished from energy of style?

19. What is said to be the effect of a too uniform elegance of style?

20. Is pleasure the ultimate end of poetry? and state your reasons for the opinion you hold on this subject.

Compose a speech from the following data; Marius, when about to levy troops for the war in Africa, to the Roman people:

When men at first seek power they are industrious and moderate; having obtained it, "per ignaviam et superbiam ætatem agere"; the interest of the republic ought to be the first thing,—he is sensible of the people's kindness and the greatness of the work before him,—his preparations for the war hindered by the envious and factious,—if he fail, he will have no powerful connections to defend him, but many enemies to assail him,—he must depend upon himself,—labour therefore more strenously,—he has been accustomed to hardships and dangers.—exaggerates the value of his experience to the disparagement of his enemies who think themselves illustrious by celebrating the deeds of their ancestors,—he can refer to his own actions,—he can make no elegant speeches, like them, never studied *litteras Græcas*, but is able *hostem ferire*, nihil metuere, &c.,—he has no statues of his ancestors, but has spears, &c., and scars,—encourages the people to enlist,—he will treat them and himself alike,—and, *dis juvantibus, omnia matura sunt, victoria, præda, laus.*

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—MONDAY, APRIL 20TH, 3 TO 6 P. M.

## MORAL PHILOSOPHY.

FOURTH YEAR—*Ordinary Examinaion.*

*Examinhr*,.....REV. DR. LEACH.

1. Whence do men derive the conceptions of their fundamental rights?

2. Whence arises the diversity of rights in different communities?

3. What is meant by the sentiment of rights, and what are the effects that are naturally produced by it?

4. Show that we are necessarily led to refer to, and assume a supreme rule of human action.

5. How does it happen that the precepts of Morality admit of a distribution corresponding to the classification of rights?

6. Show that Goodness or Virtue does not consist in the gratification of bodily appetite, nor of the affections, *per se*.

7. What are the vices which an honourable mind has an especial abhorrence of?

8. What are the virtues called heroic?

9. State the principal distinctions between virtues and duties.

10. Explain what is meant by the principle of earnestness, and the principle of moral purpose.

11. What are meant by Cases of Conscience, and what is the question in every case of conscience?

12. What would be the probable consequences of classifying actions as good, bad, and *allowable*?

13. What is meant by the greatest happiness principle, and what objections lie against it?

14. What unfavourable results arise from state poor laws, and how may they be mitigated or prevented?

15. What is the usual argument against state relief of the poor, and what reply may be made to it?

16. What consequences would follow had the laws no sanctions?—and state the proper object or design of punishments.

17. That the moral teaching of the Law may be efficacious, what necessary condition is required?

18. Why is Capital Punishment for murder not looked upon as too severe, and upon what grounds does necessary severity claim rightly the public sympathy?

19. Show that other punishments cannot in all cases be substituted for capital punishment.

20. Is that which is called reformatory punishment compatible with the reality of punishment?

21. How may the Law, as a means of moral discipline, regain its hold on the members of a community after its severity has been relaxed in accordance with their feelings or prejudices?

22. Show that some punishments are *directly* moral lessons.

23. In order that the Law may be a means of moral education, in *what manner* must it tend towards the idea of justice?

24. Show that actual and fixed laws are requisite for the moral education of the members of the state.

25. Show that Law and Justice cannot exist separately.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—FRIDAY, APRIL 10TH, 9 A.M. TO 1 P.M.

## GERMAN.

### SECOND YEAR.

*Examiner*,..... PROFESSOR C. F. A. MARKGRAF.

1. Illustrate by short examples the various meanings and constructions in German of the verbs 'to know, to receive, to listen, to want.'

2. Form the Comparative and Superlative of groß, hoch, jung, ſtolz, grau, oft. — State those adjectives which have no comparative.—Explain the use of „der ſchönſte" and „am ſchönſten."

3. Decline in the four cases singular and plural:

All this good wine—the pleasant (freundlich) village (Dorf n.) —our happy (glücklich) nephew (Neffe).

4. Give the gender and signification of Vorzug, Jahr, Geſchenk, Pfalz, Dienſtag, Vergnügen, Gedächtniß, Augenblick, Italien;—and the nominative plural of Apfel, Nachbar, Auge, Mann, Straße, Pole, Kleid, Wort, Bruder.

5. State those Verbs which reject the syllable „ge" in the perfect participle.

5. Man hat die Bücher nicht finden können. — How do you account for the two Infinitives?

7. When is the Infinitive of German Verbs not preceded by the particle „zu"?

8. *a*. How do you express motion to and from the speaker? Offer two examples.—*b*. Give the Adverbs of motion corresponding to oben, unten, diesſeits and jenſeits.

9. Write the three persons sing., present tense, and the past participle of verſprechen, abtragen, wiedergeben, ſchlagen; — and the present infinitive of gethan, verloren, gewußt, verſtanden.

10. Render into English: Statt finden; ſchuldig ſein; auf dieſe Weiſe; den Sommer über; bis dahin; — and explain the respective meanings of gut und wohl; ſchlecht, übel and ſchlimm, when used in connection with veros.

11. Translate into German:

Wait till I return. He has finished the work which I began (*perf.*) Have you already read the letters which the captain's friends have sent you? I have not had time yet to open them. Which of these two carriages is worth more, mine or that of your cousin? Where have these people come from? From Spain. How long do they intend to remain here? About an hour. Until morning. Your purse lies upon the

chair upon which you placed it. Have you ever been in Switzerland? I have never been there yet; but I have travelled as far as Germany. Why did you call me? Because I wish to show you several new books which I have bought (for) you.

12. Translate into English:

Und Gottes Engel ſtand vor der Finſtern da; er ſprach zu ihr des heiligen Schickſals Wort: „Weil du das Licht der Sonne beneidet haſt, Unglückliche, ſo wirſt du künftig nur von ihrem Lichte glänzen; und wann dort jene Erde vor dich tritt, ſo ſteheſt du halb oder ganz verfinſtert da, wie jetzt. — Doch, Kind des Irrthums, weine nicht. Der Erbarmende hat dir deinen Fehler verziehen und ihn in Wohl verwandelt. „„Geh,““ ſprach er, „„ſprich der Reuenden zu. Auch ſie in ihrem Glanze ſei Königin. Die Thränen ihrer Reue werden ein Balſam ſein, der alles Lechzende erquickt, der das vom Sonnenſtrahl Ermattete mit neuer Kraft belebet.““

Herder.

Hoch ragt aus ſchatt'gen Gehegen
Ein ſchimmerndes Schloß hervor,
Ich kenne die Thürme, die Zinnen,
Die ſteinerne Brücke, das Thor.

Es ſchauen vom Wappenſchilde
Die Löwen ſo traulich mich an,
Ich grüße die alten Bekannten
Und eile den Burghof hinan.

. . . . . .

Ich tret' in die Burgkapelle
Und ſuche des Ahnherrn Grab;
Dort iſt's, dort hängt vom Pfeiler
Das alte Gewaffen herab.

Noch leſen umflort die Augen
Die Züge der Inſchrift nicht,
Wie hell durch die bunten Scheiben
Das Licht darüber auch bricht.

So ſtehſt du, o Schloß meiner Väter,
Mir treu und feſt in dem Sinn,
Und biſt von der Erde verſchwunden,
Der Pflug geht über dich hin.

A. von Chamisso.

# McGILL COLLEGE, MONTREAL.

B. A. Ordinary Examinations, 1863.—Friday, April 10th, 9 a.m. to 1 p.m.

## GERMAN.

*Examiner*.....Professor C. F. A. Markgraf.

1. What is meant by *Appositional* phrases, and in what case are they put in German? Mention instances.

2. How are the prepositions wegen, halben, um—willen constructed with personal pronouns?

3. Explain in full the declension of Proper Names.

4. Give the gender and nominative plural of Kunſt, Gericht, Obrigkeit, Jagd, Umſtand, Macht, Frucht, Gefährte, Baſe, Tochter, Geſchäft, Studium, Thür, Vormund, Feder, Ding, Schöpfung.

5. By what constructions is the Present Participle in English to be rendered into German, when used to express *cause*, *reason*, *condition*, and *time*?

6. Give the meaning of, and mention the cases and prepositions (if any) governed by each of the following Verbs: ſich nähern, umgehen, nachgehen, ſich erkundigen, ſich ſetzen, helfen, ſich begeben, lachen, ſich abgeben, ſich einbilden.

7. Form the Imperfect and Perfect Infinitive of ſchreiten, herbeiziehen, zuſchließen, begreifen, antreffen, entfliehen, vermeiden, rennen, erdulden.

8. What part of speech is „ob," when is it used, and of what conjunctions does it form a component?

9. "I should see him, if I went thither."
"He would keep it, were I to give it to him."
"You would have seen them, had you been there."
Translate each of the above-mentioned sentences, *a.* with the conjunction „wenn", *b.* omitting „wenn", *c.* inverting the sentences, and substituting the Subjunctive for the Potential mood.

10. Give the different versions of:—what has happened?—I have made his acquaintance—can you do without me?—how much I owe you!

11. Translate into German:*

Nothing makes life more agreeable than the society of and intercourse with our friends. I am glad to see (that) you look so well. Are you pleased with each other? As to us, we do not know what to do, or where to go to. Since you are happy, why do you complain? We have walked a mile. Is that the lady of whom you spoke to me? It is he who has said that. How much will we have left, when we (will)

have paid for these goods? He related to me that he had suffered shipwreck, and had lost all his fortune. I do not generally meddle with things that do not concern me; but I love you so much that I concern myself much about what you are doing. It is hoped that they will yet have arrived in time.

12. Translate into English: *

Es mangelte den Abderiten nie an Einfällen; aber selten paßten ihre Einfälle auf die Gelegenheit, wo sie angebracht wurden, oder kamen erst, wenn die Gelegenheit vorbei war. Sie sprachen viel, aber immer, ohne sich einen Augenblick zu bedenken, was sie sagen sollten oder wie sie es sagen wollten. Die natürliche Folge hiervon war, daß sie selten den Mund aufthaten, ohne etwas Albernes zu sagen. Zum Unglück erstreckte sich die schlimme Gewohnheit auf ihre Handlungen; denn gemeiniglich schloßen sie den Käficht erst, wenn der Vogel entflogen war. Dies zog ihnen den Vorwurf der Unbesonnenheit zu; aber die Erfahrung bewies, daß es ihnen nicht besser ging, wenn sie sich besannen.

Wieland.

„Und da hing ich, und war's mir mit Grausen bewußt,
Von der menschlichen Hülfe so weit,
Unter Larven die einzige fühlende Brust,
Allein in der gräßlichen Einsamkeit,
Tief unter dem Schall der menschlichen Rede,
Bei den Ungeheuern der traurigen Oede.

Und schaudernd dacht' ich's, da kroch's heran,
Regte hundert Gelenke zugleich,
Will schnappen nach mir; in des Schreckens Wahn
Laß ich los der Koralle umklammerten Zweig,
Gleich faßt mich der Strudel mit rasendem Toben;
Doch es war mir zum Heil, er riß mich nach oben."

Der König darob sich verwundert schier,
Und spricht: „Der Becher ist dein!
Und diesen Ring noch bestimm' ich dir,
Geschmückt mit dem köstlichsten Edelgestein:
Versuchst du's noch einmal und bringst mir Kunde,
Was du sahst auf des Meeres tief unterstem Grunde."

Schiller.

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Notice.—Instead of the pieces marked with an asterisk (*), the *Advanced Division* will translate a piece from Addison's 'Remarks on Italy,' and pages 253–54 of Goethe's play „Iphigenie auf Tauris" — The Questions on German Literature, embracing the 3d and 4th Periods, will be dictated.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS.—SATURDAY, APRIL 25TH, 9 A.M TO 12, NOON.

SECOND YEAR.

*Examiner*.....P. J. DAREY, M.A.

Translate into English.

RENAULT AUX CONJURÉS.

I. Et en vérité, mes (1) compagnons, qu'est-ce qu'il y a (2) sur la terre qui soit (3) digne de la protection du ciel, si ce que nous faisons (4) ne l'est (5) pas? Nous détruisons le plus horrible de tous les gouvernements; nous rendons le bien à tous les pauvres sujets de cet (6) état, à qui l'avarice des nobles le (7) ravirait éternellement sans nous; nous rappelons (8) à la vie un nombre infini de malheureux que leur cruauté est en possession de sacrifier à leurs moindres ressentiments pour les sujets les plus légers (9).

SAINT-RÉAL,
(*Conjuration contre Venise.*)

*1. What part of speech is *mes*? What is its gender? Give the other gender. Give both forms for the masculine. When is the masculine form used before a feminine noun? Give two examples.

2. In what other way could you express this interrogative expression *qu'est-ce qu'il y a*?

3. In what mood and tense is *soit*? Why is it put in that mood and tense.

*4. Give the second person plural of *faisons* in the *indicative present*, *preterite définite*, in the *present* and in the *imperfect* of the *subjunctive mood*.

5. What part of speech is *l'*? In which gender would you put it in parsing?

*6. Why is this word written so? Give the rule.

7. What part of speech is *le*? Why is it in the masculine gender?

8. When do you double the *l* in the conjugation of this verb? Give the rule, and two examples.

*9. How do you form the feminine of *legers*? Give the rule and two examples.

*11. When do you translate the demonstrative pronoun *this* by *celui* and when by *ceci*? Give an example of each case.

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* For the elementary division.
† For the advanced division
When there is no mark to a question, both divisions are expected to answer it.

*III. State the six cases, with an example of each case, where you translate the personal pronoun *I* by *moi*.

*IV. Where do you place a personal pronoun governed by a verb, either as its direct or indirect object? What tense forms an exception to this rule? Give two examples applying to the rule and two to the exception.

*V. What difference is there between: *Amener* and *apporter*,
*Emmener* " *emporter*?
Give an example with each.

*VI. How many *primitive* tenses are there in French? Name them. Are the *Imperfect of the indicative mood* and the *future*, primitive or derivative tenses? If they are primitive, what tenses do they form?—if derivative, from what tenses primitive are they formed, and how?

VII. When do you translate the English *pluperfect* into French by the *plus-que-parfait*, and when by the *passé antérieur*? Give an example of each case.

*VIII. Give the *past participle*, the second person singular and plural of the *indicative present*, the *preterite definite* and *subjunctive present* of the verbs: *aller*, *dirai*, *naître*, *viendront*, *sachant*, et *vivre*.

IX. When do you use the pronoun *soi*? Give an example where the use of *lui* instead of *soi* would be equivocal.

†X. In what number do you put the verb preceded by collective nouns? Give two examples.

†XI. Correct this sentence: *La charité Chrétienne nous commande d'aimer, et de prêter assistance à notre prochain.* State the rule which relates to this case.

*XII. Translate into French the first paragraph of "WESTMINSTER ABBEY."—*Gems from the Spectator, page* 36.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS.—SATURDAY, APRIL 25TH, FROM 9 A.M. TO 12 NOON.

THIRD YEAR.

*Examiner*,.....P. J. DAREY, M. A.

I. Qu'est-ce que l'ELLYPSE? Quand peut-on l'employer? Quelle faute Voltaire a-t-il commise contre l'emploi de cette figure dans ces vers :

" J'eusse été près du Gange esclave des faux dieux,"
Chrétienne dans Paris, musulmane en ces lieux.

II. Quelle figure de syntaxe les vers suivants renferment-ils?

Entre le pauvre et vous, vous prendrez Dieu pour juge,
Vous souvenant, mon fils, que, caché sous ce lin,
Comme eux vous fûtes pauvre, et comme eux orphelin.

En quoi consiste cette figure? (RACINE.)

III. Quelle différence y a-t-il entre :

| | | |
|---|---|---|
| Aider quelqu'un | ET | Aider à quelqu'un. |
| Comparer *à* | " | Comparer *avec*. |
| Insulter quelqu'un | " | Insulter à quelqu'un. |
| Entendre raillerie | " | Entendre la raillerie. |
| Ne servir à rien | " | Ne servir de rien. |

IV. Quelles sont les quatre meilleuers pièces de PIERRE CORNEILLE? Donnez l'analyse de l'une d'elles.

V. Quel est l'autre grand poëte tragique français? Dites en quoi il est inférieur à Corneille, et en quoi il lui est supérieur. Quelles sont les trois de ses pièces qu'il a imités d'Euripide? A laquelle de ces trois pièces donnez-vous la préférence? Pourquoi?

VI. Où LA FONTAINE naquit-il? Dans quelle année? Quelle était la vocation de son père? Comment le talent poétique de La Fontaine lui fut-il révelé? Quel âge avait-il alors? Dans quel genre de littérature débuta-t-il? Quel est son vrai titre de gloire? Quels auteurs anciens a-t-il imités? Quel était son caractère?

VII. Qui est-ce qui a écrit les *Lettres Provinciales*? De quoi traitent-elles? Pourquoi portent-elles ce nom? Quel autre ouvrage très-remarquable le même auteur a-t-il écrit. Quel en est le mérite?

VIII. Dans quelle année MOLIÈRE naquit-il? Quelle fut la première pièce qu'il publia? Où fut-elle jouée d'abord? Quel est le chef-d'œuvre de Molière? Donnez une courte analyse de ce chef-d'œuvre.

IX. Lequel des grands prédicateurs, sous Louis XIV, doit-on regarder comme le plus grand ? Sur quoi fondez-vous cette opinion ? Combien y en a-t-il de très-remarquables ? Dites quel est le principal mérite de chacun d'eux.

X. Quand FÉNÉLON naquit-il ? Où vécut-il ? Quels sont les ouvrages qu'il a publiés ? Faites de courtes remarques sur chacun des ses ouvrages.

XI. Quel est l'auteur l'*Esprit des Lois* ? Quels autres ouvrages le même auteur a-t-il publiés ? Quels mérites possèdent-ils ?

XII. Par quoi VOLTAIRE est-il remarquable ? Quel était son nom de famille ? Pourquoi changea-t-il de nom ? Quel autre grand auteur français a aussi changé de nom ? Quel genre de littérature Voltaire a-t-il cultivé ? Quelle influence a-t-il eu sur son siècle. Citez deux de ses tragédies. Dites sous quel rapport il est inférieur, comme tragédien, à Corneille et à Racine, et en quoi il leur est peut-être supérieur.

XIII. Traduisez en français tout le paragraphe de l'Acte III, scène première qui commence par ces mots : *To bait fish withal*, du MERCHANT OF VENICE *by* SHAKSPEARE.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—MONDAY, APRIL 27TH, 10 A.M TO 1 P.M.

BOTANY.

*Examiner*,..... J. W. DAWSON, LL.D., F.R.S., &c.

1. Describe the structures in the blade of the leaf, with their functions.

2. Explain the relations of Carbonic Acid and Ammonia to the nutrition of the plant.

3. Describe the leading kinds of inflorescence, with examples of their principal modifications.

4. Describe minutely the Stamen and Pistil, with the terms applied to their parts.

5. Describe the Ovule, its positions, and the relations of its parts to those of the seed.

6. Describe the principal forms of the Gamo-petalous Corolla.

7. Describe the structure of the seed, and state the distinction between Albuminous and Exalbuminous seeds.

8. Explain Fertilization in Phænogams, with the structure of the Pollen grain and embryo sac.

9. Describe the reproductive organs of Ferns, Mosses, and Lichens.

10. Describe the parts indicated by the terms *Placenta*, *Receptacle*, *Cotyledon* and *Radicle*.

11. Explain the natural system in Botany, and state the gradation of groups, with examples.

12. Explain the terms *Gymnospermous*, *Epigynous*, *Adnation*, *Cremocarp*.

13. Describe any one of the natural orders of Dicotyledones, Monocotyledones, and Cryptogams, respectively.

14. Refer the specimens exhibited to their series and class, and describe the forms of their leaves and the character of their inflorescence.

# McGILL UNIVERSITY, MONTREAL.

## Faculty of Arts.

SESSIONAL EXAMINATIONS, 1863.

MONDAY, APRIL 27TH, 1863.—10 A. M. TO 1 P. M.

### GEOLOGY AND MINERALOGY.

FOURTH YEAR AND ENGINEERING STUDENTS.

*Examiners*, ..... { J. W. DAWSON, LL.D., F.R.S.
T. STERRY HUNT, M.A., F.R.S.

1. What is the cleavage, and what the crystalline form of fluor-spar, and how is it distinguished from calcareous spar and from phosphate of lime?

2. Describe the differences in mineral characters between albite and pyroxene, and give the chemical composition of the two species.

3. Explain what are meant by hemihedral forms in crystallography, and illustrate your meaning by examples from the monometric and hexagonal systems.

4. What are the constituent elements, and what the differences between granite, diorite and dolerite?

5. Describe the Post-pliocene deposits of Canada, and state their characteristic fossils.

6. State the general sub-divisions of the Tertiary or of the Mesozoic in Western Europe, with detailed notice of one of the systems of formations.

7. Name in chronological order the Palæozoic formations, and give a detailed account of one of them.

8. Give an account of the Flora of the Carboniferous System, or of the Fauna of the Lower Silurian.

9. State the grounds and mode of proceeding, for ascertaining the relative ages of stratified rocks.

10. State the causes and phenomena of Volcanic or of Seismic action.

11. Explain the mode of occurrence and manner of working of Mineral veins.

12. Describe the more important structural peculiarities of Metamorphic rocks, with their probable causes.

13. State the Zoological or Botanical, and the Geological relations of the specimens exhibited.

14. Name the Palæozoic formations occurring in Canada, and state the distribution and lithological characters of one of them.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—MONDAY, APRIL 27TH, 10 TO 1.

## ZOOLOGY.

*Examiner*, .....J. W. DAWSON, LL.D., F.R.S., &c.

1. Define the Province Mollusca.

2. State the characters of the *Acalephae*, with examples.

3. To what class do corals and sea fans belong; give its characters.

4. Describe the locomotive organs of the *Echinodermata*.

5. State fully the characters of the *Lamellibranchiata*, with examples.

6. State the structure of the shell in Mollusks, and its differences in structure and arrangement in *Brachiopods* and *Lamellibranchiates*.

7. To what class and order does *Helix* belong? explain the characters of the class and order.

8. Describe the metamorphosis of one of the *Entozoa*.

9. State the differences between Insects, Crustaceans and Arachnidans.

10. Describe the circulation and respiration of Reptiles and Birds.

11. Give the orders of Birds or Fishes, with examples, and describe one.

12. Characterise Owen's sub-classes of Mammalia, and give the orders in one of them.

13. Describe the orders of the *Cephalopoda* with examples.

14. State the distinction between Batrachians and Reptiles proper.

15. Name the orders of *Protozoa*, and describe one, stating the different opinions entertained as to the classification of these animals.

16. Describe, and refer to their Province and class, the specimens exhibited.

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

### SESSIONAL EXAMINATIONS, 1863.

TUESDAY, APRIL 7TH, 1863.—10 A. M. TO 1 P. M.

### HEBREW.

JUNIOR CLASS.

*Examiner*,.....REV. A. DE SOLA, LL.D.

1. Give the rules for דגש קל and דגש חזק?

2. How does מהג affect קמץ and state the difference between קמץ רחב and קמץ דטוף?

3. Give the rules for the definite article.

4. Give the rules for the formation of the plural masculine, plural feminine, and the dual.

5. State the difference between שוא נע and שוא נח?

6. Write down the personal pronouns, singular and plural, and also the pronominal suffixes.

7. Render into Hebrew :—The house and the man. My father and the father of that man. Whose is this book? My house and our book. Your brother and their father. He created the heavens and the earth with wisdom for the sons of man, and for his glory. The bride of our prince.

8. Explain מקף, רפה and מהג.

9. How do you form the construct state of masculine nouns ending in the singular with an immutable vowel?

10. What is the termination of the construct state of feminine nouns ending in ָה, and what is the termination of the construct state of nouns plural masculine?

11. What have you to say respecting the Tonic accents, and קרי and כתיב?

12. Translate into English

האדם בהולדו הוא קטן ונקרא יונק או עולל לשנתים ימים יחל ללכת ולדבר והוא ילד
לשבע שנים ילמוד לשון וספר והוא עלם לשלש עשרה שנה הוא נער לעשרים שנה
הוא בהור לשלשים שנה מלאו כחו ושכלו והוא גבר או איש לשבעים שנה הוא זקן

# Faculty of Arts.

## McGILL COLLEGE, MONTREAL.

### SESSIONAL EXAMINATIONS, 1863.

TUESDAY, APRIL 7TH, 1863.—10 A.M. TO 1 P.M.

### HEBREW.

SENIOR CLASS.

*Examiner*,.....REV. A. DE SOLA, LL.D.

1. What are the general characteristics of the poetry of the Scriptures, and give some examples of Parallelism, complete and incomplete.

2. Write out a verb ס״ח in the קל Form.

3. Describe the יתד in modern Hebrew poetry, and show specimens of different kinds of metre—examples in משוט and מורכב.

4. What date is generally assigned for the מורכב species of metre, and translate into Hebrew, retaining the יתד, "Lebanon and Shiryon like a young Rehem" (son of Rehemim.)

5. What are the main characteristics of verbs Pé Guttural?

6. Give a free version of the second and fourth Psalms.

7. Translate into Hebrew:—That man has walked in the way of the godly. Those men have built a large house for their brethren. The queen did not send her son to this people. She heard the voice of young men and maidens in the field. That child is smaller than this; but that man is taller than your brother. Whom shall I send?

8. Write out a verb Pé Nun, and add the objective pronominal fragments.

9. Translate into English

במה יפלס ארחו נער ונבר
לשמור מוסר וצדק ולסור מאזלת
הקשיבה דברי אל תט אל עבר
כי זה המאזנים כי זה הפלס

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1863.

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TUESDAY, APRIL 7TH.—9 A. M. TO 12 NOON.

### ENGINEERING.

*Examiner*,..... PROF. M. J. HAMILTON, C. E.

1. Describe the mode of adjusting the line of Collimation in the Transit Theodolite.

2. Describe the mode of setting the level on the telescope of a Transit Theodolite parallel to the line of Collimation.

3. If a vernier be attached to a rule divided into tenths of an inch, and nineteen divisions on the rule coincide with twenty divisions on the vernier: required the degree of accuracy to which this arrangement will enable you to measure distances.

4. Give the field notes of Line 2, Plan No. 1, the scale being 6 chains to one inch.

5. Explain the principle of construction of the instrument used for ranging lines between points not visible from one another in consequence of an intervening hill.

6. In measuring one of the lines of a chain survey it becomes necessary to find the width of a river too deep and too wide to be measured in the ordinary way: how do you proceed to determine it?

7. The lengths of the sides of a triangle are 40.26, 30.64, and 38.12 chains (100 feet): required the area in acres, roods, and perches.

8. Balance the following field notes, and give the contents in acres, roods, and perches, the chain being 66 feet.

| Bearing. | Distance. |
|---|---|
| N. 50° W. | 6.75 chains. |
| S. 74° W. | 6.65 " |
| S. 36°.30′ E. | 5.50 " |
| S. 24°.30′ W. | 6.00 " |
| N. 74°.30′ E. | 8.70 " |
| N. 26°.00 E. | 5.50 " |

9. Give a sketch and description of the Surveyor's Compass with vernier attached and the mode of using it.

10. The front line of two adjoining lots A, and B, starting from the S.E. corner of lot A and running in a S.W. direction makes an angle of 120°, with their side lines: required to draw a line at right angles to the side lines so that the land between it and the front line shall be worth $5000, A being 800 feet wide and worth $20 per acre, and B 1000 feet wide and worth $30 per acre.

# McGILL COLLEGE, MONTREAL.

## SESSIONAL EXAMINATIONS, 1863.

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TUESDAY, APRIL 7TH.—2 P. M. TO 5 P. M.

### ENGINEERING.

*Examiner*,..... PROF. M. J. HAMILTON, C. E.

1. Describe the mode of adjusting the line of Collimation on the Dumpy Level.

2. Enter the following readings in the usual *forms* of field books: 1st setting up of Instrument 5.40, 3.21, 4.37, 4.80, 5.10, 5.60; 2nd 6.20, 7.32, 6.80, 7.50, 8.40, 8.95; 3rd 5.21, 758, 7.10, 6.48, 5.84, 3.22, 2.75, 7.00.

3. Reduce the above readings, station 0 being 100 feet above Datum, and give the modes of checking both forms of field books.

4. If the above readings be taken at stations 100 feet apart, find the depths of cutting and heights of embankment at each station, the height of grade at station 0 being 100 feet, and at station 16, 96 feet above Datum.

5. For what purpose are cross sections taken: give examples of their application?

6. Give the forms of field books for cross sections.

7. Give the quantities in cubic yards in cuttings (question 4), the width at bottom being 30 feet and the slopes $1\frac{1}{2}$ to 1.

8. Describe the mode of setting out Railway curves with the Transit and chain.

9. The bearings of three lines, A B, B C, and C D, are as follows:

A B, N. 84° W.
B C, S. 56°.30′ W., and is 20 chains (100 feet) in length.
C D, N. 73°.30′ W.

Required the radius of the reverse curve that will unite A B and C D.

10. Give the methods of setting out half widths when the ground is uneven in cross section.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, WEDNESDAY, APRIL 8TH, 1863.—9 A.M. TO 2 P.M.

ENGINEERING.

*Examiner*, .....PROF. M. J. HAMILTON, C. E.

1. The resisting area of the top chords of a Burr Truss Bridge is 400 square inches,—resisting area of the bottom chords, 300 square inches, resisting area of the arches at the crown 1020 square inches, and the resisting area of the perpendicular of the skew-back 1030 square inches. Required the distance of the neutral axis from the centre of the top chord, the centre of the arch at the crown being 2′6″ below it, and the centre of the bottom chord 17 feet below the centre of the arch at the crown, and 8 feet above the centre of the arch at the skew-back.

2. Explain the principles on which grade lines are established.

3. Give sketches and descriptions of the modes of draining deep cuttings in clay soil.

4. Describe the mode of laying the Permanent Way.

5. In making progress estimates, what precautions are to be taken in order to insure ultimate accuracy?

6. Give a sketch and description of the mode of forming embankments when they approach the wing walls of bridges, retaining walls, &c.

7. Show that $\left\{(h^2+hH+H^2)\frac{P}{81}+\left(\frac{h+H}{54}\right)b\right\}l$ will give the contents in cubic yards of a cutting whose height at one end is $h$ and at the other $H$, the bread that bottom $b$, $l$ the length, and $P$ the ratio of the slopes, the surface being level in cross section.

8. Describe the usual modes of *getting* and removing earth from Railway cuttings.

9. Give the number of cubic yards of masonry in the bridge, Drawing No. 4.

10. A wall 20 feet high has to sustain the pressure of water 18 feet deep. Required its thickness at the bottom, the back being vertical and the face inclined at an angle of 75° to the horizontal, the weight of a cubic foot of the material being 160 lbs., and that of the water 62.5 lbs., the modulus of stability being taken equal to half the distance between the vertical through the centre of gravity of the wall and its outer edge.

# McGILL COLLEGE, MONTREAL.

WEDNESDAY, APRIL 8TH.—2 P.M. TO 5 P.M.

ENGINEERING.

*Examiner*,.....PROF. M. J. HAMILTON, C.E.

1. A plate-webbed girder is 60 feet long and 4.5 feet high. Required the area of the top boom at the centre, the weight of the girder and load being .75 ton per foot run, and the safe load 4.5 tons per square inch.

2. Required the area of the top boom (question 1) at a distance of 20 feet from the centre.

3. If the load, 10 cwt. per foot run, extends from the abutment to a point 20 feet beyond the centre, required the cross strain at that point.

4. Required the thickness of the web plate (question 3), the rivets being $\frac{3}{4}''$ and placed 3″ from centre to centre.

5. An angle iron 4″ x 4″ x $\frac{5}{8}''$ is riveted alternately in both flanges with $\frac{7}{8}''$ rivets, $1\frac{1}{8}''$ from the edge and 3 to the foot run. Required the resisting area.

6. A timber truss bridge, 200 feet long, 21 feet high, and 14 feet from inside to inside of chords, is weather boarded. Required the dimensions of the diagonal braces, placed 20 feet apart, when the pressure of the wind is 30 lbs. per square foot and the safe load 1000 lbs. per square inch.

7. If knee braces, 7 feet long, placed parallel to the diagonals be substituted for the diagonal braces (question 6), required their dimensions.

8. Are counter braces necessary in timber bridges? If so, explain why.

9. Determine the size of the lateral braces at the ends of the truss (question 6).

10. The span of a beam culvert is 10 feet. Required the dimensions of the beams that will support a load of 1 ton per foot run with a deflection of one inch—the material being white pine.

# McGILL UNIVERSITY, MONTREAL.

## ENGINEERING DIPLOMA.

*Special Examination in Mathematics and Natural Philosophy.*

FRIDAY, APRIL 24TH, 10 A.M. TO 1 P.M.

*Examiner*..... ALEXANDER JOHNSON, LL.D.

1. The mean section of a stream is 8 ft. by 1 ft.; its mean velocity is 40 ft. per minute; it has a fall of 17½ ft.; it is required to raise water to a height of 300 ft. by means of a water-wheel whose modulus is 0.7; how many cubic feet will it raise per minute?

2. If the wrought-iron rails on a railway are twelve miles long when the temperature is 12° below freezing, by how much will they be lengthened if their temperature is raised to 60° F.; the coefficient of expansion for one degree being ·00000642.

3. Given an incline of 1 in $n$, and that a body weighing $W$ rests upon it, if the friction is 1 lb. in $m$, show that the pressure which will bring the body into the state bordering on motion up the plane is equal to $W\left(\frac{1}{m}+\frac{1}{n}\right)$ nearly.

4. A rope $l$ feet long and weighing $w$ lbs. per foot hangs by one extremity, determine the number of units of work required to wind up $a$ feet of the length.

5. A locomotive engine weighing 9 tons passes round a curve 600 yards in radius at the rate of 30 miles an hour; what pressure tending towards the centre of the curve must be exerted to make it move in this curve?

6. If this pressure is supplied by making the inner rail on a lower level than the outer, what ought to be the difference of the level if the space between the rails is 4 ft. 9 inches?

7. Find the centre of gravity of a cone.

8. State the laws of friction, and describe the experiments on which they were based.

9. A stone is projected vertically upwards with a velocity of 150 feet per second, and one second after, another stone is projected with a velocity of 200 feet per second; when and where will the stones meet?

10. The zenith-distance of a star whose Dec. was 5° 36′ 6″·7 N. was observed at a certain place to be 48° 48′ 34″ when its hour-angle from the meridian was 1 h. 20 m. 18·13 s.; find the latitude of the place.

11. Explain fully any one method of finding the mean time at any place.

12. Prove the formula for finding the area of a triangle in terms of the three sides.

# FACULTY OF LAW.

# McGILL COLLEGE MONTREAL.

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SESSIONANAL EXAMINATIONS, APRIL, 1863.—TUESDAY, APRIL 15TH, 4 P.M. TO 6 P.M.

## CUSTOMARY LAW, AND LAW OF REAL ESTATE, &c.

FIRST YEAR.

*Examiner*,.....PROF. LAFLAMME.

1. Quelles sont les conditions exigées par notre droit pour jour desi droits civils, et pour les exercer ?
2. Qu'est-ce que la mort civile, quel est son effet en Canada ?
3. Comment s'établit le domicile, et comment se perd-il ?
4. Combien d'espèces de tutelle sous notre droit, comment la tutelle est-t-elle établie, quels sont les procédés requis pour conférer la tutelle.
5. Peut-on réclamer la tutelle comme un droit, et en quels cas ; et peut-on la refuser, et pour quelles causes ?
6. Dans quels cas le mineur peut-il agir seul, et dans quels cas le tuteur peut-il représenter efficacement le mineur.
7. Quelles sont les actions qui résultent de la possession, et quelles sont les conditions exigées pour les exercer ?
8. Donnez les principaux effets du droit de propriété ?
9. Qu'est-ce que le droit d'accession, en quel cas a-t-elle lieu ?
10. Combien d'espèces de servitudes ?
11. Comment s'établissent les servitudes ?
12. Quels sont les degrés de parenté qui forment un empêchement dirimant au contrat de mariage ?
13. Comment se dissout le mariage en ce pays ?
14. Quels sont les effets civils du mariage ?
15. Comment se perd l'usufruit ?
16. Quelles sont les charges de l'usufruitier ?

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—THURSDAY, APRIL 16TH, 4 TO 6 P. M.

## ROMAN LAW.

*Examiner*,.....PROFESSOR F. W. TORRANCE.

1. What is the meaning of "*collatio bonorum*"?

2. Explain the *Scta. Tertullianum* and *Orphitianum*.

3. State shortly the changes introduced by the *possessio bonorum*, and 118th and 127th Novels.

4. Define "*Obligatio*"—"*Obligatio Naturalis*"—"*Obligatio Civis*."

5. Define contracts *re—verbis—literis—consensu*.

6. What was the *Lex Commissoria*?

7. Did the Roman Law make the obligation of the surety void if it exceeded the debt of the principal? Is the rule of our law the same?

8. Was the sale of a thing out of commerce always null?

9. What terminated *mandatum*?

10. Explain the difference between error of fact and error of law. What was the doctrine of Pothier? What was the decision in Leprohon v. The Mayor, 2 L. C. Rep. 180–192.

11. Explain "*furtum*"—"*rapina*"—and "*Lex Aquilia*."

12. Explain the actions of the law—the formulary system—and "*judicia extraordinaria*."

## EVIDENCE—LOWER CANADA.

1. What rule was laid by the Ordinance *de Moulins* and that of 1667 respecting parol testimony?

2. What *four* general principles does Pothier lay down deciding the cases in which parol testimony ought to be admitted or rejected?

3. Is the rule "*unus testis, nullus testis*" law with us? Has any change been made, and when?

4. Give an example of presumptions *juris et de jure* and those *juris*.

5. Explain the "*serment décisoire*" and *juramentum suppletorium* and *in litem*.

# McGILL UNIVERSITY, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—THURSDAY, APRIL, 16TH., 4 P.M. TO 6 P.M.

## ROMAN LAW.

SECOND YEAR.

*Examiner*,..... PROF. F. W. TORRANCE.

1. Explain *res communes, res publicæ, res universatatis, res divini juris*-

2. Explain fully "*Occupatio*," "*Accessio*," "*Traditio*".

3. Explain Urban and Rural servitudes, and give instances of each.

4. What was the primitive Roman Law as to "*usucapio*" and "*præscriptio ;*" and what were the rules of prescription adopted by Justinian.

5. Explain "*dos profectitia*," "*dos adventitia*," "*dos receptitia.*"

6. Give the meanings and history of the different "*peculia*" of Roman children.

7. Give the rules as to *exhæredation.* Into how many parts was the *hæreditas* divided. Give the divisions.

8. From what causes was a Roman will broken ?

9. In the primitive Roman Law, how many different classes of legacies were there ? Explain each class.

10. Explain the *Sctum Trebellianum*, and *Sctum Pegasianum.*

11. Explain "*sui hæredes*," "*agnati*," and "*cognati ;*" *Sctum Tertullianum* and *Sctum Orficianum.*

12. What changes were made in the law by the 118th and 127th Novels ?

13. Explain "*Successio Libertorum*," "*assignatio libertorum*," "*Possessio bonorum..*

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# McGILL UNIVERSITY, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—THURSDAY, APRIL, 16TH, 4 P.M. TO 6 P.M.

## ROMAN LAW.

FIRST YEAR.

*Examiner*..... PROF. F. W. TORRANCE.

1. What are the chief divisions of the Institutes of Justinian?

2. What more ancient work served as model for them, and when was that older work discovered in modern times?

3. Who are the chief jurists, fragments of whose works are found in the Digest?

4. Define Law—*jus publicum*, *jus privatum*, *jus gentium*.

5. State the different modes of manumission.

6. State shortly the provisions of the *Lex Aeliaa Sentia* and the *Lex Fusia Caninia*.

7. Are there any, and if so, what traces of slavery in the early history of the Province of Quebec under the French and English denomination?

8. How many kinds of marriage were there among the Romans, and what were the hindrances to a marriage?

9. Was the Roman marriage in any, and if so, in what way or ways dissoluble?

10. How many modes of legitimation were there among the Romans? Explain each.

11. How many kinds of *Tutela* were there? What were the duties o the tutor before entering upon his office?

12. When was a *Curator* given to a minor, and what were the incidents of his office?

13. Can you state the principles applied in *Ducondu* v. *Bourgeois* 2 L. C. Jur. 104, and *Simpson* v. *Bank of Montreal*, 6 L. C. Jur. 1.

14. In what books of the Corpus Juris, do you find any traces of the subject of "Corporations?" What was the subject of the French Edict Nov. 25th 1743, registered in the Conseil Superieur, Quebec.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—TUESDAY, APRIL 14TH, 4 TO 6 P.M.

## LAW FACULTY—CUSTOMARY LAW.

SECOND AND THIRD YEAR STUDENTS.

*Examiner*,.....PROF. LAFLAMME.

1. Comment s'établit la communauté de biens, de quoi se compose-t-elle ?
2. Quelle est la différence que la loi établit en faveur de la femme par rapport à la communauté et aux obligations qu'elle entraîne ?
3. Comment se dissout la Communauté ?
4. Qu'est-ce que la continuation de Communauté, de quoi se compose-t-elle, et comment se dissout-elle ?
5. En quoi consiste le douaire coutumier, et quels biens y sont sujets ?
6. Comment se règle le douaire coutumier des second et troisième mariage ?
7. Quels sont les charges du douaire coutumier ? Les dettes du mari diminuent-elles le douaire ?
8. Combien d'espèces d'hypothèques.
9. Quelles sont les principales dispositions de la loi d'enrégistrement relativement aux hypothèques tacites ?
10. La loi d'enrégistrement a-t-elle laissé subsister quelques-uns des privilèges reconnus par notre ancien droit, lesquels, et à quelles conditions ?
11. Quelles sont les actions résultant des hypothèques.

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—FRIDAY, 17TH APRIL, 4 TO 6 P.M.

## OBLIGATIONS.

FIRST YEAR.

*Examiner*,..... PROFESSOR E. CARTER.

1. What is the legal definition of an obligation? State the various kinds of obligations as defined by Mr. Pothier, and the distinctive characteristics of each.

2. What is of the essence of obligations; and state the various causes from which they proceed?

3. What is a pollicitation; and in what respect does it differ from an obligation?

4. What defects may occur in contracts? Describe minutely each of them, and under what circumstances they will render the obligation null and void?

5. What rules exist in relation to the interpretation of contracts, in so far as they may affect the liability of the parties to it?

6. What is a conditional obligation, and what is the effect of the condition? What is a resolutory condition, and what constitutes the difference between it and one which is not resolutory?

7. What is the effect of an obligation *à terme* with a term, and in what respect does it differ from a conditional obligation?

8. What is an alternative obligation? Define the rights of the creditors and of the debtors under it; also in what respects is the liability of the debtor affected by the extinction of one of the things due; also if both perish, one by his default and the other without it.

9. What is the effect of solidity in obligations on the part of creditors—of debtors; and state the different modes in which the obligation in solido on the part of debtors may be contracted?

10. Under what circumstances will the creditor be considered to have renounced to his right of solidity? In what manner can prescription as against all the co-debtors be interrupted? What would be effect of a discharge by a creditor to one of the co-debtors in solido, in so far as his remedy against the other debtors is concerned?

11. What is the obligation of a surety (caution)? How many different kinds are there? What is the extent of the obligation of a surety, and in what manner may he be discharged?

12. What exceptions can the surety urge against the demand of the creditor; and state fully under what circumstances, and subject to what conditions these exceptions can be urged?

13. What recourse can the surety who has paid exercise against the principal debtor, and what conditions attach to the exercise of that remedy? Under what circumstances would the surety have a recourse against the principal debtor, before he, the surety, has paid?

14. In what manner are obligations extinguished—define the different modes, showing the difference in each, and what in law is considered necessary to effectuate a valid extinction of an obligation by the different modes to be described?

# McGILL COLLEGE, MONTREAL.

SESSIONAL EXAMINATIONS, 1863.—FRIDAY, 17TH APRIL, 4 TO 6 P.M.

## AGENCY.

SECOND AND THIRD YEAR.

*Examiner*,..... PROFESSOR E. CARTER.

1. What persons are incapable of appointing agents? What persons cannot become agents for others; and state the difference, if any, and the reason of it, relating to the incapacity to contract, and the power of acting as agent for another, notwithstanding such disability.

2. Mention the different kinds or classes of agents—describe them—and more particnlarly state the characteristics which in commercial agencies distinguish the one from the other.

3. State what rules prevail in determining whether the authority conferred upon the agent has been properly exercised—distinguish between cases of agency created by writings or written instructions and where none exist, as frequently occurs in commercial agencies.

4. Can a departure by the agent from his instructions be justified, and under what circumstances? explain the doctrine which obtains in that respect fully. Also state in what cases the agent could not be held responsible for a refusal on his part to comply with the request of his principal.

5. What liabilities do commercial agents incur towards their principals, and to what extent will that liability be increased if the contract between them be one known as *del credere*?

6. Under what circumstances will unauthorized acts of agents become binding upon their principals? and state the various modes in which the liability of the latter may be deemed established.

7. What will suffice to create a personal liability on the part of agents towards third parties, in relation to their dealings with them?

8. Describe the different modes in which the contract of agency may be terminated; and mention all the cases, if there be any, in which the acts of the agent would be binding notwithstanding previous revocation. Explain the rules of law which obtain in that respect, and the principles upon which they are based?

## PARTNERSHIP.

1. What is a contract of partnership—what is essential to constitute it—and what will be considered sufficient evidence of the existence of a partnership?

2. What liability attaches to dormant and nominal partners as respects third persons—and what liability as between them and the active partner?

3. If a clerk or agent is allowed a portion of the profits as a compensation or incentive for greater exertion, will that constitute him a partner?

4. Would the partnership-signature obtained from one partner for a debt which the creditor knew was the private debt of the partner, constitute a binding contract upon the firm? To what extent would you carry the rule if the signature was attached to a negotiable instrument?

5. What power has each partner over the partnership property? State fully the rule in this respect?

6. State the different modes in which a co-partnership may be dissolved—and under what circumstances can the rights of third parties be affected by the dissolution.

## CRIMINAL LAW.

1. By what law are we governed in criminal matters? By what authority, and when, was it first introduced into this Province, and what classification is it susceptible of? and shortly state the distinctive characteristics of each.

2. Under how many heads are crimes and offences classified? Give a description of each classification.

3. State the rules of criminal responsibility, in so far as they relate to infancy—insanity—drunkenness—and *coverture?*