

## THE GILCHRIST SCHOLARSHIP.

WE have received through the Hon. W. B. Vail, Provincial Secretary, the syllabus of Matriculation of the London University. We publish it for the information of competitors. The name of the sub-examiner for Nova Scotia has not yet been announced.

## MATRICULATION.

No candidate shall be admitted to the MATRICULATION EXAMINATION unless he have produced a Certificate showing that he has completed his Sixteenth year, (and is not over 22 years of age).

The Examination shall be conducted by means of printed papers. Candidates shall be examined in the following subjects:

## MATHEMATICS.

## ARITHMETIC.

The ordinary Rules of Arithmetic.  
Vulgar and Decimal Fractions.  
Extraction of the Square Root.

## ALGEBRA.

Addition, Subtraction, Multiplication, and Division of Algebraical Quantities.  
Proportion.  
Arithmetical and Geometrical Progression.  
Simple Equations.

## GEOMETRY.

The First Four Books of Euclid:—or, The principal properties of Triangles, and of Squares and other Parallelograms, treated geometrically: The principal properties of the Circle, and of its inscribed and circumscribed figures, treated geometrically.

## NATURAL PHILOSOPHY.\*

## MECHANICS.

Composition and Resolution of Statical Forces.  
Simple Machines (*Mechanical Powers*):—Ratio of the Power to the Weight in each.  
Centre of Gravity.  
General Laws of Motion, with the chief Experiments by which they may be illustrated.  
Law of the Motion of Falling Bodies.

## HYDROSTATICS, HYDRAULICS, AND PNEUMATICS.

Pressure of Liquids and Gases, its equal diffusion, and variation with the depth.  
Specific Gravity, and modes of determining it.  
The Barometer, the Siphon, the Common Pump and Forcing-Pump, and the Air-Pump.

## ACOUSTICS.

Nature of Sound.

## OPTICS.

Laws of Reflexion and Refraction.  
Formation of Images by Simple Lenses.

## CHEMISTRY.

Heat—its sources. Expansion. Thermometers—relations between different Scales in common use. Difference between Temperature and Quantity of heat. Specific and Latent heat. Calorimeters. Liquefaction. Ebullition. Evaporation. Conduction. Convection. Radiation.  
Chemistry of the Non-Metallic elements; including their compounds as enumerated below—their chief physical and chemical characters—their preparation—and their characteristic tests.

Oxygen, Hydrogen, Carbon, Nitrogen. Chlorine, Bromine, Iodine, Fluorine. Sulphur, Phosphorus, Silicon.  
Combining Proportions by weight and by volume. General nature of Acids, Bases, and Salts. Symbols and Nomenclature.

The Atmosphere—its constitution; effects of Animal and Vegetable life upon its composition.

Combustion. Structure and properties of Flame. Nature and composition of ordinary Fuel.

Water. Chemical peculiarities of Natural waters, such as rain-water, river-water, spring-water, sea-water.

Carbonic Acid. Oxides and Acids of Nitrogen. Ammonia. Olefiant Gas, Marsh Gas, Sulphurous and Sulphuric Acids, Sulphuretted Hydrogen.

Hydrochloric Acid. Phosphoric Acid and Phosphuretted Hydrogen. Silica.

## CLASSICS.

## THE GREEK AND LATIN LANGUAGES.

One Greek and one Latin subject, to be selected by the Senate

\* The knowledge required of these subjects in Natural Philosophy is such as may be attained by attending a Course of Experimental Lectures.

one year and a half previously from the works of the under-mentioned authors:—†

*Homer*... One Book.

*Xenophon* One Book.

*Terence*... One Play.

*Virgil*... One Book of the Georgics, and one Book of the Æneid.

*Horace*... Two Books of the Odes.

*Sallust*... The Conspiracy of Catiline, or the War with Jugurtha.

*Cæsar*... Two Books of the Gallic War.

*Livy*... One Book.

*Cicero*... De Senectute or De Amicitia, with one of the following Orations—*Pro Lege Manilia*, one of the four Catilinarian Orations, *Pro Archia*, *Pro M. Marcello*.

*Ovid*... One Book of the Metamorphoses, and One Book of the Epistles or Heroides.

The paper in Greek shall contain passages to be translated into English, with questions in Grammar, History, and Geography. The paper in Latin shall contain passages to be translated into English, with questions in History and Geography. A separate paper shall be set containing questions in Latin Grammar, with simple and easy sentences of English to be translated into Latin.†

## THE ENGLISH LANGUAGE.

Orthography: Writing from Dictation. The Grammatical Structure of the Language.

## OUTLINES OF ENGLISH HISTORY AND MODERN GEOGRAPHY.

History of England to the end of the Seventeenth Century with questions in Modern Geography.

## THE FRENCH OR THE GERMAN LANGUAGE, at the option of the Candidate.‡

The papers in French and German shall contain passages for translation into English from works previously selected and made known by the Senate,§ and questions in Grammar (limited to the Accidence) on subjects furnished by those passages; together with short and easy passages for translation into English from prose works not previously announced.

Candidates shall not be approved by the Examiners unless they show a competent knowledge in each of the following subjects:

1. Classics, including the Greek and Latin Languages, with Grammar, History, and Geography;
2. The English Language, English History, and Modern Geography;
3. Mathematics;
4. Natural Philosophy;
5. Chemistry;
6. Either the French or the German Language.

The Examinations shall be conducted in the following order:

## MONDAY.

Afternoon, 2 to 4. Latin Classics.

4 to 6. Latin Grammar and Composition.

## TUESDAY.

Morning, 10 to 1. Greek Classics and Grammar.

Afternoon, 3 to 6. French or German.

## WEDNESDAY.

Morning, 10 to 1. Arithmetic and Algebra.

Afternoon, 3 to 6. Geometry.

## THURSDAY.

Morning, 10 to 1. English Language.

Afternoon, 3 to 6. English History.

## FRIDAY.

Morning, 10 to 1. Natural Philosophy.

Afternoon, 2 to 5. Chemistry.

† THE CLASSICAL Subjects are:—For June 1868—*Xenophon*, *Anabasis*, Book II.; *Horace*, Odes, Books III., IV.

For June 1869—*Homer*, *Odyssey*, Book X.; *Cicero*, "De Amicitia," and the Oration "Pro Archia."

‡ Special stress is laid on accuracy in the answers to the questions in Greek and Latin Grammar.

§ Candidates can obtain credit for only one of these Languages.

¶ THE FRENCH Subjects are:—For June 1868—*Emile Augier*, *Diane*; *Alex. Dumas*, *La Tulipe noire*.

For June 1869—*Ponsard*, *L'Honneur et l'Argent*, *Comédie en vers*; *Erdmann-Chatrain*, *Madame Thérèse*, ou *Les Volontaires de '92*.

The GERMAN Subjects are:—For June 1868—*Schiller*—*Wilhelm Tell*.

For June 1869—*Goethe*, *Egmont*.

## UNIVERSITY OF CAMBRIDGE AND THE DOMINION.

ROBERT POTTS, Esq., M.A., of Trinity College, Cambridge, England, has presented to the Educational Department of Ontario, for gratuitous distribution in the Dominion, 1,000 copies, each, of his *Liber Cantabrigiæ*, and *A brief account of the scholarships and exhibitions open to competition in the University*