

IV.—MATHEMATICS.

- (A) Algebra, Geometry and Trigonometry as in *Grade XII*.
- (B) Plane and Solid Analytical Geometry, including the general equation of the second degree. Differential and Integral Calculus, as in Murray's *Infinitesimal Calculus*.

V.—SCIENCES.

Any one of the following:

PHYSICS.

- (A) A knowledge of *General Physics*, as in "A Textbook of Physics" by Watson (unstarred sections), or any equivalent.
- (B) The presentation of note-books describing the *laboratory experimental work* of the candidate, duly certified by the Instructor, the work to consist of at least 50 experiments of recognized University grade (e. g. as in Ames and Bliss' "Manual of Experiments in Physics"). In cases where the candidate cannot present note-books satisfactory to the examiner, the test may be made by a practical laboratory examination.
- (C) *Elementary Mathematical Physics*. A knowledge of the results obtained by the application of elementary mathematics to physical problems; such as might be obtained during a course of lectures of two or three hours per week running through two years. The grade of work such as is given in Preston's "Theory of Heat," Preston's "Theory of Light," and J. J. Thompson's "Elements of Electricity and Magnetism," or their equivalents.

CHEMISTRY.

- (A) *Inorganic Chemistry* as in Smith's "General Inorganic Chemistry," or an equivalent, with laboratory work in General Chemistry, which should include the preparation of some typical gases, acids, and salts, and at least five or six quantitative experiments in illustration of the fundamental laws of Chemistry. The laboratory work may be partially tested by requiring the candidate to produce a properly certified record of his experimental work.
- (B) *Organic Chemistry* as in Remsen's "Compounds of Carbon," or an equivalent, to be accompanied by laboratory work, which should include the preparation of at least 20 typical carbon compounds. The laboratory work may be tested partly by ques-