4. MATHEMATICS AND PHYSICS.

HONOUR COURSES.

MATHEMATICS.—(*First Year.*) McDowell's Exercises on Modern Geometry, &c.—Wood's Algebra.—Hind's Plane Trigonometry.

MATHEMATICS.—(*Second Year.*)—Todhunter's Theory of Equations.—Hind's Spherical Trigonometry.—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 Cap. 13.)—Tait & Steele, Dynamics of a Particle.—Besant's Hydrostatics, Chaps. 1, 2, 3, 5.—Walton's Mechanical and Hydrostatical Problems.—Parkinson's Optics.—Main's Practical and Spherical Astronomy (selected course).

B. A. HONOUR COURSE.

PURE MATHEMATICS.—Hind's Plane and Spherical Trigonometry.—Todhunter's Theory 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.—Tait & Steele, Dynamics of a Particle.—Routh's Dynamics of a Rigid Body.—Besant's Hydrostatics and Hydro-dynamics.—Walton's Mechanical Examples.—Walton's Examples in Hydrostatics

ASTRONOMY.—Main's Astronomy.—Sir John Herschel's Outlines of Astronomy (Part II. on the Lunar and 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.
ELECTRICITY.
MAGNETISM.
ACOUSTICS.
} As in Ordinary Course.

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.

MATHEMATICAL PRIZE.

The Anne Molson Prize of about $64, the surplus arising from the Anne Molson Medal fund, is offered for competition to Students of the Fourth Year in April, 1871, at the B. A. Honour Examinations.

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5. NATURAL HISTORY AND GEOLOGY.

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.

Candidates for Honours will be expected to attain such proficiency as to be able to undertake original investigations, in some at least of the subjects of study.

The Lectures will include :—

1. An advanced course in General Geology and Palæontology, in connection with which the Students will be required to read Dana's Geology and Owen's Palæontology.

2. Methods of observation and of conducting Geological Surveys. Applications of the science to Mining, Engineering and Agriculture.