

(II.) SURVEYING AND LEVELLING.

LAND SURVEYING—

- Chain Surveys.
- Compass and Theodolite Surveys.
- Methods of keeping Field Notes.
- Determination of Heights and Distances.
- Plotting.

LEVELLING—

- Longitudinal and Cross Sections.
- Plotting.

SETTING OUT.

- Setting out Straight Lines and Curves.
- Setting out Levels.

MENSURATION—

- Lines, Surfaces and Solids.
- Timber, Masonry, Iron and Earthwork.
- Capacities of Reservoirs, &c.

Lectures will also be given on the distinctive features of Mining and Hydrographic Surveying.

Text Books.—Murray's Manual of Land Surveying (a).

Gillespie's Higher Surveying (b), (c).

Henck's or Trautwine's Railway Curves (b).

Fee for Special Students, \$10.

(III.) GEODESY AND PRACTICAL ASTRONOMY.

(Only the more elementary work under this head will be obligatory.)

GEODESY—

- Field Work.
- Calculation of the Triangles.
- Figure of the Earth.

PRACTICAL ASTRONOMY—

- Methods of determining Latitude, Local Time, Direction of the Meridian, and Difference of Longitude,
- Theory of the Theodolite, Transit-Theodolite, Level, Sextant, and Solar Compass.

Text Books.—Gillespie's Higher Surveying (b), (c).

Chauvenet's Spherical and Practical Astronomy (c).

Nautical Almanac for 1887 (c).

Chambers's Practical Mathematics (c).

Fee for Special Students, \$15.