

SUMMARY OF INSTRUCTION IN MATHEMATICS AND MECHANICS.

4TH CLASS

OBLIGATORY, 1,500 MARKS.

MATHEMATICS.

Arithmetic to Interest, Discount, Stocks, Proportional parts and extraction of square root and cube root. (*Printed notes and authorized text books.*)

Marks, March, 100; June, 300.

Euclid (Todhunter) to Book II.; III.

Algebraical explanations will also be given of the propositions in Book II. *Marks, Dec., 100; March, 100; June, 200.*

Algebra (Todhunter's for beginners, and printed notes) to simple Equations, Chap. I—XXV, April; to Evolution XXXII, March. Progressions and Revision I—XL, June.

Marks, Dec., 100; March, 100; June, 200.

Plane Trigonometry (*Todhunter and lectures or printed notes.*) 1st. Initial line. Terminal line. Angles of any size. The rules of signs. Trigonometrical ratios. Reasons for their names. Elementary formulæ proved from definitions. Formulæ connecting each with every other. Construction of angles when the ratios are given, also by the table of chords. Changes of the ratios in sign and magnitude. Circular measure. Logarithms. Chaps. I to V, omitting § 5-9; proof of § 14; § 24; proof of § 51; § 53; § 66-75, *Dec.* Formulæ of two angles, Chap. VI, omitting § 79, 80. Chap. VII, § 95, 98. The angles 18° , 36° , 54° , 72° , Chap. VII, § 107-10, and note process of 113. Relation of $\sin \theta : \theta : \tan \theta$, Chap. IX, § 116-18.; *March.* Revision I—XL. Solution of triangles, Chap. XIII, XIV, omitting alternative methods § 231, 2, 7, and § 119-221, 238.

Marks, Dec., 50; March, 50; June, 200.

VOLUNTARY, 500 MARKS.

Qualification, one-third for any section.

SECTION A.

Euclid III, IV.—*Algebra, (Todhunter's, for beginners, and printed notes.)* Quadratics, Evolution, Indices, Surds, Ratio, Proportion and Variation, Progressions, Permutations and Combinations, Binomial Theorem, Interest. *Plane Trigonometry.* —Formulæ of two angles, ratios for 15° , 18° , &c. Solution of triangles; Chapters VI to XIV, omitting 219, 221, 231, 232, 237, 238.

Marks, Dec., 100.

Euclid
Book V

Algebra
Anomal
proof of
to end.
XXII.
the rest
practical
XXXVI
§ 551:

Plane
ting XII

Conics
hunter as
omitting
notes, pr
VI to § 9

Euclid
explained
to XXXI,

Algebra
Complete.
Class cour
Variation,