§ 154-6. Alteration of centre of gravity of a body or system when a portion is transferred to another position.

The lever and balances, Chapters XI, XII ; omitting analytical proof of the requisites of a balance ; § 173.

Machines ; Chapter XIII ; with a simpler view of a train of wheels, § 187, omitting all considerations of the size of the teeth. Machines in combination ; product of their mechanical advantages.

Pulleys ; Chapter XIV ; omitting weights of pulleys, 202-6, and second case of Spanish Barton given erroneously in § 207.

Inclined Plane ; Chapter XV.

The Screw ; Chap XVI.

Compound Machines ; Chapter XVII.

Friction. Co-efficient of friction. Angle of friction. Limiting angle of resistance. Chapter XIX ; omitting § 255-7 and § 260.

Easy problems on the above course.

Marks, March, 100 ; *June,* 400.

Notes and Recitations 50

3RD CLASS·

VOLUNTARY, 2,000 MARKS.

Qualification,—one-third for any section.

SECTION F.

Euclid XI., to Prop: 21.   *Marks, December,* 200

SECTION G.

Algebra (Todhunter.) Theory of quadratics and quadratic expressions, Chapter XXII. Simultaneous equations involving quadratics, XXIII, XXIV. Imaginary expressions, Ratio, Proportion and Variation ; practical examples only, XXV to XXVIII. Progressions, including the sum of the squares, cubes, &c., of the first n natural numbers, and thence the summation of series having the last term rational and algebraic, XXX to XXXII, omitting § 456-8. Mathematical Induction, XXXIII. Permutations and combinations, XXXIV, omitting § 500. Binomial theorem, proof for positive integral exponent only, XXXV to XXXVI, omitting § 516-20, 523-25, and only reading over § 527. Logarithms, XXXVIII, XXXIX, omitting § 549, and only reading over § 551. Convergency of series,

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