

**ICSE · CLASS 10**

Mathematics

Complete official CISCE ICSE Class X Mathematics syllabus. Sections include Commercial Mathematics (GST, Banking), Algebra (Linear Inequations, Quadratic Equations, Factor Theorem, Matrices, AP/GP), Coordinate Geometry, Geometry (Similarity, Circles, Loci), Mensuration, Trigonometry, and Statistics/Probability.

Board: Council for the Indian School Certificate Examinations**Theory:** 80 Marks**Internal/Practical:** 20 Marks**Exam Duration:** 2½ Hours

UNIT-WISE SYLLABUS & MARKS BREAKDOWN

UNIT	CHAPTERS & PRESCRIBED TOPICS	MARKS
Unit 1	Commercial Mathematics Goods and Services Tax (GST): Computation of tax on intra-state and inter-state transactions, CGST, SGST, IGST, input and output tax credit; Banking: Recurring Deposit Accounts, calculation of interest using formula $I = P * [n(n+1)/(2*12)] * (r/100)$ and maturity value	12
Unit 2	Algebra Linear Inequations: Solving linear inequations in one variable algebraically and representing solution on the number line; Quadratic Equations: Solving by factorisation and formula $x = [-b \pm \sqrt{(b^2 - 4ac)}] / 2a$, nature of roots (discriminant); Ratio and Proportion: Continued proportion, mean proportion, componendo, dividendo, alternendo, invertendo; Factorisation of Polynomials: Remainder and Factor Theorems, factorising cubic polynomials; Matrices: Order of matrix, addition, subtraction, scalar multiplication, matrix multiplication, identity and null matrices; Arithmetic & Geometric Progression: General term, sum of n terms	26
Unit 3	Coordinate Geometry Reflection: Reflection of a point in a line ($x=0$, $y=0$, $x=a$, $y=a$) and in the origin; Section and Mid-point formula; Equation of a line: Slope-intercept form $y = mx + c$, point-slope form, two-point form, parallel and perpendicular lines	08
Unit 4	Geometry Similarity: Conditions of similarity (AAA, SAS, SSS), Basic Proportionality Theorem, applications; Circles: Angle properties (angle subtended at centre is twice angle at circumference, angles in same segment are equal), Cyclic properties (opposite angles sum to 180°), Tangent and Secant properties (tangent is perpendicular to radius, equal tangents from external point, alternate segment theorem); Loci: Theorems and locus constructions	16
Unit 5	Mensuration Area and volume of 3D solids: Right circular cylinder, Right circular cone, Sphere and Hemisphere; Combinations of solids and conversion/melting problems	08
Unit 6	Trigonometry Trigonometric Identities: Proof and application of identities ($1 + \tan^2\theta = \sec^2\theta$, $1 + \cot^2\theta = \operatorname{cosec}^2\theta$, $\sin^2\theta + \cos^2\theta = 1$); Heights and Distances: Solving 2D problems	10

UNIT	CHAPTERS & PRESCRIBED TOPICS	MARKS
	using trigonometric tables and angles of elevation & depression (30°, 45°, 60°)	
Unit 7	Statistics and Probability Statistics: Computation of Mean (Direct, Short-cut, and Step-deviation methods); Median, Quartiles, and Mode from Ogives (cumulative frequency curve) and Histograms; Probability: Random experiments, elementary events, single-event probability	10

INTERNAL / PRACTICAL ASSESSMENT SCHEME (20 MARKS)

EVALUATION COMPONENT	MARKS WEIGHTAGE
Two Internal Assessment Assignments Comprehensive project on commercial math / statistical survey / geometric constructions	20 Marks

RECOMMENDED REFERENCE LITERATURE

Prescribed Textbooks: Concise Mathematics Class 10 (Selina / RK Bansal), ML Aggarwal Understanding ICSE Mathematics, Excellence Mock Board Papers

The Excellence Tuition Edge

Every unit in this curriculum is taught with structured conceptual lectures, followed by weekly speed-testing, detailed mistake analysis, and dedicated 1:1 doubt-clearing sessions to build board exam confidence.