



- AI & Future Skills Integration

CLASS-10

Syllabus and Exam Pattern

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● SECTION A: NUMBER SYSTEM (10%)

1. Real Numbers

- Euclid's Division Lemma
- Fundamental Theorem of Arithmetic
- LCM & HCF applications
- Irrational numbers

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◆ SECTION B: ALGEBRA (25%)

1. Polynomials

- Zeroes and relationship with coefficients

2. Pair of Linear Equations in Two Variables

- Graphical and algebraic methods
- Word problems

3. Quadratic Equations

- Factorization and formula method

- Application problems

#### 4. Arithmetic Progressions (AP)

- nth term
  - Sum of n terms
  - Word problems
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### ● SECTION C: COORDINATE GEOMETRY (10%)

- Distance formula
  - Section formula (basic)
  - Area of triangle
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### ● SECTION D: GEOMETRY (20%)

#### 1. Triangles

- Similarity
- Theorems and applications

#### 2. Circles

- Tangents and properties

#### 3. Constructions (basic understanding)

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### ◆ SECTION E: TRIGONOMETRY (15%)

#### 1. Trigonometric Ratios

#### 2. Identities

#### 3. Heights and Distances (basic applications)

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### ● SECTION F: MENSURATION (10%)

- Surface areas and volumes
  - Combination of solids (basic application)
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### ● SECTION G: STATISTICS & PROBABILITY (5%)

#### 1. Statistics

- Mean (direct method)

#### 2. Probability

- Classical probability

 SECTION H: SMART LOGIC & AI AWARENESS (2.5%)

*(No specific study required)*

1. Analytical Thinking

- Pattern-based reasoning
- Logical sequencing

2. AI Concepts

- Data-driven decision making
- Real-life AI applications

 SECTION I: ADVANCED REASONING & HOTS (2.5%)

- Case-based questions
- Multi-step problem solving
- Algebra and geometry-based reasoning

 Weightage Structure

Section	Area	Weightage
A	Number System	10%
B	Algebra	25%
C	Coordinate Geometry	10%
D	Geometry	20%
E	Trigonometry	15%
F	Mensuration	10%
G	Statistics & Probability	5%
H	Smart Logic & AI Awareness	2.5%
I	Advanced Reasoning & HOTS	2.5%

Total = 100%

 EXAM PATTERN

- Mode: Online / Offline (MCQ Based)
- Total Questions: 50
- Total Marks: 50
- Duration: 60 Minutes

**Question Distribution:**

- Core NCERT Maths: 42 Questions
  - Smart Logic & AI: 4 Questions
  - Advanced Reasoning & HOTS: 4 Questions
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 **Important Note**

The syllabus is based on NCERT Class 10 Mathematics with a strong focus on board-level preparation and competitive application. The Smart Logic & AI Awareness section is designed to enhance analytical and future-ready thinking without requiring additional preparation.