



Summer Fields School

Kailash Colony, New Delhi - 110048

SYLLABUS FOR 42nd ARYABHATTA INTER-SCHOOL MATHEMATICS COMP. - 2025 (Class V)

The duration of the Test will be 2 Hours and Maximum Marks will be 100.

1. Four Fundamental Operations of Mathematics
2. Roman Numbers
3. L.C.M & G.C.D (H.C.F)
4. Decimals & Fractions
5. Metric System
6. Percentage
7. Time Conversions
8. Lines and Angles
9. Polygons
10. Circle
11. Triangles
12. Average
13. Speed, Distance, Time
14. Area of Squares & Rectangles
15. Perimeter of Linear Figures.
16. Volume of Cubes & Cuboids

FORMAT OF QUESTION PAPERS FOR V

Section A. Free Response Questions (Type I)	10 Questions of 1 mark each.
Section B. Free Response Questions (Type II)	10 Questions of 2 mark each.
Section C. Free Response Questions (Type III)	10 Questions of 3 marks each.
Section D. Free Response Questions (Type IV)	10 Questions of 4 mark each.

No working / descriptive answers of any question is to be given. Only the answers are to be written on the answer sheet in the space provided. The sample paper and the Answer Sheet as per the New Format will be shared soon on the link.



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SYLLABUS FOR 42nd ARYABHATTA INTER-SCHOOL MATHEMATICS COMP. - 2025 (Class VIII)

The duration of the Test will be 2 Hours and Maximum Marks will be 100.

UNIT: 1

Percentage, Profit & loss, S.I, C.I, Ratio & Proportion, Time & Work, Unitary method, Direct & inverse variation.

UNIT: 2

Area & Perimeter of all three sided & four sided plain figures & Circle; Area & Volume of Cube, Cuboid, Right Circular Cylinder, Right Circular Cone & Sphere, Hemisphere, Combination & Conversion of solids.

UNIT: 3

Number system: Addition, Subtraction, Multiplication, Division of numbers, Fractions, Rational Numbers, Irrational Numbers, Square and Square Root, Cube and Cube Root

UNIT: 4

ALGEBRA: Addition, Subtraction, Multiplication & Division of algebraic expressions (including quotient from) Simplification of brackets.

Solution of linear equation in one variable & pair of simultaneous linear equation in two variables & problems based on it

FACTORIZATION: Factorization of algebraic expression using special products and factorization of quadratic polynomials, Cubic Polynomials.

UNIT: 5

GEOMETRY: Congruency and Similarity of Triangles, Pair of angles, Parallel lines, Triangles, Quadrilateral, Types of Quadrilaterals and related properties, Circles.

UNIT: 6

STATISTICS: Frequency distribution and cumulative frequency distribution table, range and class marks; mean, median and mode of ungrouped data.

FORMAT OF QUESTION PAPERS FOR VIII

Section A. Logical Reasoning (MCQs)	10 Questions of 1 mark each.
Section B. Multiple Choice Questions	20 Questions of 1 mark each.
Section C. Free Response Questions (Type I)	20 Questions of 2 marks each.
Section D. Free Response Questions (Type II)	10 Questions of 3 mark each.

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SYLLABUS FOR 42nd ARYABHATTA INTER-SCHOOL MATHEMATICS COMP. - 2025 (Class XI)

The duration of the Test will be 2 Hours and Maximum Marks will be 100.

- Sets
- Relations and Functions
- Trigonometric Functions
- Complex Numbers
- Linear Inequalities
- Permutations and Combinations
- Binomial Theorem
- Sequences and Series: Arithmetic Progression, Geometric Progression, Special Series
- Straight Lines
- Conic Sections: Circles, parabola, Ellipse, Hyperbola
- Limits and Derivatives
- Statistics (Mean, Mode, Median, Variance, Standard Deviation, Coefficient of Variation)
- Probability

FORMAT OF QUESTION PAPER FOR CLASS XI

Section A. Multiple Choice Questions	30 Questions of 1 mark each.
Section B. Free Response Questions (Type I)	20 Questions of 2 marks each.
Section C. Free Response Questions (Type II)	10 Questions of 3 mark each.

No working / descriptive answers of any question is to be given. Only the answers are to be written on the answer sheet in the space provided.