

# UNIFIED INTERNATIONAL MATHEMATICS OLYMPIAD

## S Y L L A B U S

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### Class - 1

**Mathematics :** Numbers up to 100, Ordinal numbers, Addition, Subtraction, Length, weight, capacity, Time, Money, Geometrical Shapes.

**Reasoning :** Which one is different, Analogy, What comes next, Similar shapes, Complete the figure, Hidden shapes, Grouping.

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### Class - 2

**Mathematics :** Numbers, Addition, Subtraction, Multiplication, Division, Length, Weight, Capacity, Time, Money, Geometrical shapes.

**Reasoning :** Series, Similar shapes, Analytical reasoning, Odd One Out, Analogy, Grouping of figures, Hidden shapes, Complete the figures.

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### Class - 3

**Mathematics :** Numbers, Addition, Subtraction, Multiplication, Division, Fractions, Length, Weight, Capacity, Time, Money, Shapes.

**Reasoning :** Shapes after adding, incomplete pattern, Series, Analogy, Odd one out, Alphabet Test, Grouping of Figures, Analytical reasoning, Hidden shapes.

**Critical Thinking :** Higher order thinking questions as per the syllabus of mathematics and reasoning (above). This section also includes a combination of skills like conscious application in real life, Logical & Inductive Reasoning, Tactics & Strategies in decision making.

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### Class - 4

**Mathematics :** Large Numbers, Roman numerals, Addition and Subtraction, Multiplication and division, Factors and Multiples, Fractions, Length, Weight, Capacity, Time, Geometry, Perimeter and area.

**Reasoning :** Adding figures, Subtracting figures, Grouping of identical figures, Odd one out, Series, Analytical reasoning, Alphabet Test, Coding-Decoding, Analogy and Counting figures.

**Critical Thinking :** Higher order thinking questions as per the syllabus of mathematics and reasoning (above). This section also includes a combination of skills like conscious application in real life, Logical & Inductive Reasoning, Tactics & Strategies in decision making.

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## Class - 5

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**Mathematics :** Large Numbers, Factors and multiples, Fractions and Decimals, Measurement of Length, Weight, Capacity, Volume, Time, Temperature, Conversions, Percentages, Ratios, Speed distance and time, Simple interest, Profit and loss, Geometry, Perimeter and area.

**Reasoning :** Coding-decoding, Grouping of identical figures, Odd one out, Hidden figures, Series, Mathematical reasoning, Analytical reasoning, Analogy, Mirror Images, Ranking Test, Alphabet Test, Coding-Decoding.

**Critical Thinking :** Higher order thinking questions as per the syllabus of mathematics and reasoning (above). This section also includes a combination of skills like conscious application in real life, Logical & Inductive Reasoning, Tactics & Strategies in decision making.

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## Class - 6

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**Mathematics - 1 :** Knowing our Numbers, Whole Numbers, Playing with Numbers, Basic Geometrical Ideas, Understanding Elementary Shapes, Integers, Fractions, Decimals, Data Handling, Mensuration, Algebra, Ratio and Proportion, Symmetry.

**Mathematics - 2 :** Syllabus as per Mathematics – 1. This section includes multiple choice questions which have more than one option as correct answers.

**Reasoning :** Analogy, Series, Coding-decoding, Alphabet test, Mirror image, Paper folding, Opened out, Odd one out, Mathematical reasoning, Analytical reasoning, Puzzle test.

**Critical Thinking :** Higher order thinking questions as per the syllabus of mathematics and reasoning (above). This section also includes a combination of skills like conscious application in real life, Logical & Inductive Reasoning, Tactics & Strategies in decision making.

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## Class - 7

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**Mathematics - 1 :** Integers, Fractions and Decimals, Data Handling, Simple Equations, Lines and Angles, Triangle and its Properties, Congruence of Triangles, Comparing Quantities, Rational Numbers, Practical Geometry, Perimeter and Area, Algebraic Expressions, Exponents and Powers, Symmetry.

**Mathematics - 2 :** Syllabus as per Mathematics – 1. This section includes multiple choice questions which have more than one option as correct answers.

**Reasoning :** Analogy, Series, Coding-Decoding, Alphabet test, Mirror Image, Folded in, Paper cutting, Odd one out, Analytical Reasoning, Direction sense test, Mathematical Reasoning, Puzzle test.

**Critical Thinking :** Higher order thinking questions as per the syllabus of mathematics and reasoning (above). This section also includes a combination of skills like conscious application in real life, Logical & Inductive Reasoning, Tactics & Strategies in decision making.

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## Class - 8

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**Mathematics - 1 :** Rational Numbers, Linear Equations in One Variable, Understanding Quadrilaterals, Data Handling, Squares and Square Roots, Cubes and Cube Roots, Comparing Quantities, Algebraic Expressions and Identities, Visualizing Solid Shapes, Mensuration, Exponents and Powers, Direct and Inverse Proportions, Factorization.

**Mathematics - 2:** Syllabus as per Mathematics – 1. This section includes multiple choice questions which have more than one option as correct answers.

**Reasoning :** Analogy, Series, Coding-decoding, Mirror image, Paper cutting, Odd one out, Analytical reasoning, Direction sense, Mathematical reasoning, Cube and dice, Clocks, Calendar, Logical venn diagrams.

**Critical Thinking :** Syllabus as per mathematics and reasoning. This section includes a combination of skills like conscious application in real life, Logical & Inductive Reasoning, Tactics & Strategies in decision making, higher order thinking.

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## Class - 9

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**Mathematics - 1 :** Number Systems, Polynomials, Co-ordinate Geometry, Linear Equations in Two Variables, Introduction to Euclid's Geometry, Lines and Angles, Triangles, Quadrilaterals, Areas of Parallelograms and Triangles, Circles, Heron's Formula, Surface Areas and Volumes.

**Mathematics - 2:** Syllabus as per Mathematics – 1. This section includes multiple choice questions which have more than one option as correct answers.

**Reasoning :** Analogy, Series, Coding and decoding, Mirror and water image, Blood relations, Odd one out, Analytical reasoning, Direction sense test, Mathematical reasoning, Cube and dice, Dot representation.

**Critical Thinking :** Higher order thinking questions as per the syllabus of mathematics and reasoning (above). This section also includes a combination of skills like conscious application in real life, Logical & Inductive Reasoning, Tactics & Strategies in decision making.

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## Class - 10

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**Mathematics - 1 :** Real Numbers, Polynomials, Pair of Linear Equations in Two Variables, Quadratic Equations, Arithmetic Progressions, Triangles, Co-ordinate Geometry, Introduction to Trigonometry, Some Applications of Trigonometry, Circles, Areas Related to Circles, Surface Areas and Volumes.

**Mathematics - 2:** Syllabus as per Mathematics – 1. This section includes multiple choice questions which have more than one option as correct answers.

**Reasoning :** Analogy, Series, Coding and decoding, Alphabet test, Mirror and water image, Blood relations, Odd one out, Analytical reasoning, Direction sense test, Mathematical reasoning, Cube and Dice, Puzzle test, Venn diagram, Comprehension analysis.

**Critical Thinking :** Higher order thinking questions as per the syllabus of mathematics and reasoning (above). This section also includes a combination of skills like conscious application in real life, Logical & Inductive Reasoning, Tactics & Strategies in decision making.