



An eye on talent

# **O**LYMPIAD **A**PTITUDE **T**EST

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## **Syllabus Grade 11**

### **Mathematics**

Sets, Relations and Functions, Trigonometry,  
Principle of Mathematical Induction,  
Logarithms, Complex Numbers & Quadratic Equations,  
Linear Inequations, Sequences and Series,  
Straight Lines, Conic Sections,  
Permutations and Combinations, Binomial Theorem,  
Statistics, Mathematical Reasoning, Calculus,  
Probability, Introduction to 3-D Geometry.

### **Physics**

Physical World and Measurement, Kinematics,  
Laws of Motion, Work, Energy and Power,  
Work, Energy and Power, Gravitation,  
Properties of Bulk Matter, Thermodynamics,  
Behaviour of Perfect Gases and Kinetic Theory of Gases,  
Oscillations and Waves.

### **Chemistry**

Some Basic Concepts of Chemistry, Structure of Atom,  
Classification of Elements and Periodicity in Properties,  
Chemical Bonding and Molecular Structure,  
States of Matter: Gases and Liquid,  
Chemical Thermodynamics, Equilibrium, Redox Reactions,  
Hydrogen, s -Block Elements, p -Block Elements,  
Organic Chemistry: Some basic Principles and Techniques,  
Hydrocarbons, Environmental Chemistry

## **Biology**

Diversity in the Living World,  
Structural Organisation in Plants and Animals,  
Cell : Structure and Functions,  
Plant Physiology, Human Physiology.

## **English**

Vocabulary Usage, Confusable words  
Antonyms, Synonyms, Homonyms, One word substitution  
Vocabulary test, Commonly misspell words  
Foreign terms commonly used in English  
Parts of speech, Phrases and idioms, Phrasal Verbs  
Active and passive voice, Direct and indirect speech  
Transformations, Sentence Completion  
Reconstruction of sentences, Reconstruction of paragraph  
Rearrangement of jumbled parts, Error Detection  
Spotting errors, Sentence improvement  
Comprehension Ability, Cloze Test

## **Reasoning**

Series , Analogy and Classification, Coding-Decoding,  
Blood Relations, Direction Sense, Puzzle Test,  
Venn Diagrams, Sequence, Mathematical Operations,  
Alphabet Test and Logical, Inserting the Missing Character

## **General Knowledge**

Plants and Animals, India and the World,  
Science and Technology, Earth and its Environment,  
Universe, Language and Literature, Entertainment,  
Social Studies, Sports, Quantitative Aptitude and Reasoning,  
Current Affairs, Life Skills.