

# SYLLABUS *for* **VMC's** Admission Test

**JEE, NEET, Olympiads and Board Preparatory Programs**

**Note: Existing students cannot be re-admitted/ re-enrolled through New Admission Test**

## 2 Year Program for Students going to **Class 11<sup>th</sup>** (JEE 2026)

### Mental Ability (MAT)

Verbal and Non-Verbal Series, Logical Sequence of Words, Verbal and Non-Verbal Analogy, Coding and Decoding, Arithmetical Reasoning, Alphabet Test, Puzzle Test, Mirror Images, Analytical Reasoning, Blood Relation, Dice and Cube, Grouping of Identical Figures, Calendar, Logical Venn Diagrams, Clock, Verbal and Non-Verbal Classification, Paper Folding and Paper Cutting, Ranking and Time Sequence, Figure Matrix, Data Sufficiency

### MATHEMATICS

Real Numbers, Number System, Polynomials, Linear Equation in Two Variables, Lines and Angles, Triangles, Quadrilaterals, Circles, Heron's Formula, Surface area & Volume, Statistics, Trigonometry, Probability, Quadratic Equations, Arithmetic Progressions, Similar Triangles

**PATTERN** **MAT:** 15 Questions | **Mathematics:** 20 Questions

## 2 Year Program for Students going to **Class 11<sup>th</sup>** (NEET 2026)

### PHYSICS

Reflection and Refraction: Reflection of light at curved surfaces, Images formed by spherical mirrors, centre of curvature, principal axis, principal focus, focal length, mirror formula (Derivation not required), magnification. Refraction; laws of refraction, refractive index. Refraction of light by spherical lens, Image formed by spherical lenses, Lens formula (Derivation not required), Magnification. Power of a lens.

Human eye and colourful world: Functioning of a lens in human eye, defects of vision and their corrections, applications of spherical mirrors and lenses. Refraction of light through a prism, dispersion of light, scattering of light, applications in daily life.

### CHEMISTRY

Chemical reactions: Chemical equation, Balanced chemical equation, implications of a balanced chemical equation, types of chemical reactions: combination, decomposition, displacement, double displacement, precipitation, neutralization, oxidation and reduction

Acids, bases and salts: Their definitions in terms of furnishing of H<sup>+</sup> and OH<sup>-</sup> ions, General properties, examples and uses, concept of pH scale (Definition relating to logarithm not required), importance of pH in everyday life; preparation and uses of sodium hydroxide, Bleaching powder, Baking soda, Washing soda and Plaster of Paris.

### BIOLOGY

Life processes: 'Living Being'. Basic concept of nutrition, respiration, transport and excretion in plants and animals.

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**PATTERN** **Physics:** 30 Questions | **Chemistry:** 30 Questions | **Biology:** 30 Questions | **MAT:** 10 Questions