XYLEM

NEST'27
Xylem national entrance cum scholarship test

NEET/JEE IN 2029?

ENTRANCE ORIENTED SCHOOL ൽ

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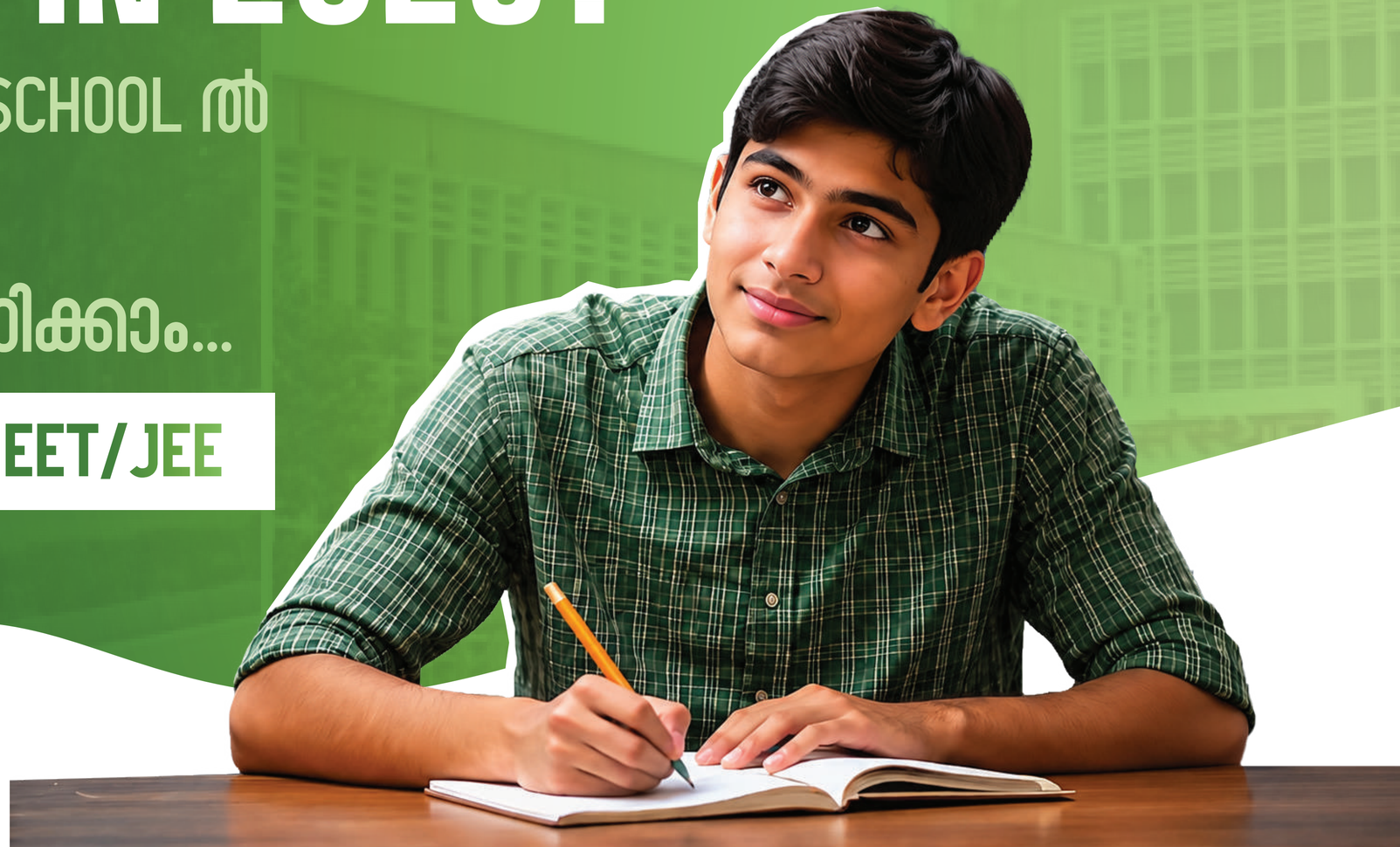
CLASS 11&12 WITH NEET/JEE



NEST EXAM SYLLABUS - CBSE

MATHS

Number System

- Natural Numbers
- Whole Numbers
- Integers
- Rational and Irrational Numbers
- Real Numbers
- Fractions
- Negative Numbers

Types of Angles

- Acute Angle
- Obtuse Angle
- Linear Pairs

Algebra

Polynomials

- Degree of a Polynomial
- Value of a Polynomial at a Given Point
- Zeroes of a Polynomial
- Polynomial Identities
- Factor Theorem
- Remainder Theorem
- Graphs of Different Polynomial
- Relationship Between Zeroes and Coefficient of a Quadratic Polynomial

Linear Equation in One Variable

Linear Equation in Two Variables

- Solution of a Linear Equation
- Consistent and Inconsistent System of Linear Equations
- Solving System of Equations
- Condition for Solvability of Linear Equation

Quadratic Equations

- Formation of Quadratic Equations
- Graph of Quadratic Polynomial
- Solving a Quadratic Equation
- Nature of Roots
- Rational and Irrational Roots

Arithmetic Progression

- Sequences and Series
- n^{th} Term of an AP
- Sum to n Terms of an AP

Laws of Exponents

Coordinate Geometry

- Distance Formula
- Section Formula
- Mid Point Formula
- Centroid of a Triangle

Geometry

Congruence of a Triangle

- SAS (Side-Angle-Side)
- ASA (Angle-Side-Angle)
- AAS (Angle-Angle-Side)
- SSS (Side-Side-Side)
- RHS (Right Angle-Hypotenuse-Side)

Similarity of a Triangle

- AAA/AA (Angle-Angle-Angle or Angle-Angle)
- SAS (Side-Angle Side Similarity)
- SSS (Side-Side-Side Similarity)

Mensuration

- Length of an Arc
- Perimeter and Area of Sector and Segments
- Area of Trapezium
- Area of Parallelogram
- Area and Volume of Cuboid, Cube Cylinder, Hollow Cylinders, Cone, Sphere Hemisphere

Trigonometry

- Trigonometric Ratios
- Trigonometric Ratios of Some Specific Angles (0,30, 45, 60°,90°)

Statistics and Probability

- Mean of Grouped, Ungrouped Data
- Median of Grouped and Ungrouped Data
- Mode of Grouped and Ungrouped Data
- Relationship Between Mean, Median, Mode
- Basics of Probability

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PHYSICS

Force & Friction
- What Is Force
- Types of Force
- Scalar & Vector Quantity
- Friction

Thrust & Pressure
- Atmospheric Pressure
- Liquid Pressure

Sound
- Properties
- Sources
- Natural Frequency
- Propagation
- Audibility -Ultrasonic & Infrasonic.

Electricity
- Insulators
- Conductors
- Current
- Voltage
- Capacitor
- Resistor
- Ohm's Law
- Combination of Resistors
- Joule's Law
- Thunder & Lightning.

Light- Reflection & Refraction
- Properties
- Propagation of Light
- Reflection of Light
- Laws of Light
- Reflection By Spherical Mirrors
- Image Formation By Spherical Mirrors
- Lens
- Uses of Lenses & Mirrors
- Real & Virtual Images

Motion In A Straight Line
- What Is Motion
- Types of Motion
- Laws of Motion
- Equations of Motion
- Graphical Representation of Motion

Gravitation
- Universal Law of Gravitation
- Mass & Gravitation
- Mass & Weight
- Acceleration Due To Gravity
- Free Fall

Work, Energy & Power
- Work
- Types of Work
- Kinetic Energy & Potential Energy
- Energy
- Law of Conservation of Energy
- Power

The Human Eye And The Colourful World
- The Human Eye
- Defects of Vision And Their Correction
- Refraction of Light Through A Prism
- Dispersion of White Light By A Glass Prism
- Atmospheric Refraction
- Scattering of Light

Magnetic Effects of Electric Current
- Magnetic Field And Field Lines
- Magnetic Field Due To A Current Carrying Conductor
- Force On A Current Carrying Conductor In A Magentic Field
- Domestic Electric Circuits

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CHEMISTRY

Structure of Atom
- Atoms
- Dalton's Atomic Theory
- Subatomic Particles
- Types of Atomic Models
- Bohr Model
- Basics of Chemical Bonding

Properties of Matter
- States of Matter
- Change of State
- Diffusion
- Mixtures And Their Types
- Pure Substances

Metals
- Physical And Chemical Properties
- Reactions of Metals With Air Water Acids And Bases
- Uses of Metals.

Nonmetals
- Oxygen
- Nitrogen
- Chlorine
- Hydrogen [uses, preparation And properties].

Redox Reactions
- Oxidation
- Reduction
- Displacement Reactions

Acids, Bases And Salts
- General Properties
- Chemical Properties
- pH
- Salts.

Polymers
- Fibre
- Synthetic fibres
- Plastics.

Carbon & Its Compounds
- Basics of hydrocarbons
- Naming
- Functional groups
- Chemical reactions.

Periodic Classification
- History of [mendeleev, moseley Lavoisier, dobereiner & newlands] -periodic table
- Trends of periodic table
- Atomic size
- Valency
- Metallic & non-metallic character

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BIOLOGY

Cell Biology

- Prokaryotic and Eukaryotic Cell

Cell Organelles

- ER
- Golgi Bodies
- Mitochondria
- Ribosomes
- Lysosomes
- Nucleus
- Vacuole

Histology (Tissues)

- Plant Tissues
- Animal Tissues

Plant Physiology

- Nutrition Types
- Photosynthesis
- Plant Hormones
- Aerobic & Anaerobic Respiration

Human Physiology

- Digestive System
- Respiratory System
- Circulatory System
- Excretory System

Nervous and Endocrine System

Nervous System

- Structure of Brain
- Spinal Cord
- Neuron

Endocrine System

Reproduction

- Asexual Reproduction
- Sexual Reproduction

Ecology and Environment

- Food Chain
- Food Web
- Ecological Interactions
- Water, Air & Soil Pollution

Genetics

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WIN & GET UP TO 100% SCHOLARSHIP!

ATTEND THE NEST EXAM

29 NOVEMBER 2026

3:00 PM - 4:30 PM

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