



DELHI PUBLIC SCHOOL MEGACITY, KOLKATA



Syllabus for Admission Test (2027 - 28)

Class IX (Nine)

Duration of Exam – 3 hrs

Total marks - 150

The written test will comprise six sections, namely English, Mathematics, Science (Physics, Chemistry, Biology), History & Civics, Geography and 2nd Language (Hindi or Bengali). The broad guidelines for questions to be asked are detailed below:

1. English -

Marks [35]

- Short essay (approx 100 words).
- Prepositions
- Active and Passive voice
- Tenses – in details.
- Affirmative and negative sentences.
- Informal letter / Formal letter
- Conjunctions
- Phrases and clauses
- Reconstruction of sentences

2. Mathematics

Marks [35]

- Number system: Rational numbers, Exponents, Squares and square roots, cubes and cubes roots, Sets
- Area and Perimeter: Quadrilaterals, Circles
- Volume and Surface area of Cylinder, Cubes and Cuboids.
- Percentage
- Profit and Loss
- Simple and Compound Interest
- Ratio and Proportion
- Linear Equations and Linear Inequations
- Four Operations on Algebra
- Algebraic Identities and Factorization
- Geometry: Coordinate system and Linear Graph, Quadrilaterals, Circles
- Probability

3. Bengali (2nd Language)

Marks [20]

- বাগধারা, • পত্ররচনা (১০০ শব্দের মধ্যে) • রচনা (১৫০ শব্দের মধ্যে)
- পদ পরিবর্তন কর / পদান্তর

OR

Hindi (2nd Language)

Marks [20]

- প্রস্তাব – লেখন (125 –150 শব্দের মধ্যে)
- অপঠিত গদ্যাংশ
- পত্র-লেখন (ঔপচারিক তথা অনৌপচারিক)
- বাক্য – শুদ্ধি (লিংগ, বচন, কাল). মুহাব্বরে এবং লোকোক্তিযা □ ভাববাক্যক সংজ্ঞা, বিলোম শব্দ পর্যা যবাকী শব্দ

4. History

Marks [15]

American revolution
American Civil War
Gandhian movements

French Revolution
Indian Legislature
United Nations Organisation

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5. Geography

Marks [15]

- Factors affecting climate of a place
- Human resource – population, Migration of people, Urbanization
- Natural / Man-made disaster.

5. Science (Full Marks 30)

• Chemistry –

[10 Marks]

Language of chemistry, Chemical formulae and balancing of equations.

States of matter – explanation on the basis of kinetic theory of matter. Atomic Structure and Bonding (electrovalent and covalent bonding).

Physical and chemical changes. Types of chemical relations with example (decomposition, combination, displacement, double displacement, precipitation, catalytic, reversible and irreversible, exothermic and endothermic).

Crystalline allotropes of carbon & properties of carbon. Numericals based on chemical equations. Common alloys. Nuclear reactors and Radio-isotopes. Hydrogen – preparation, properties and uses.

• Biology –

[10 Marks]

Transport of Food and Minerals in Plants: Processes of transport and importance of minerals.
Reproduction in Plant and Animals: Asexual and sexual reproduction in plants; pollination; Male and Female reproductive system in humans.

Ecosystem: Biotic components, food chain, food web, interaction between organisms, Biotic and abiotic components of an ecosystem.

Human Body: Endocrine, Circulatory and Nervous system.

Health and Hygiene: Diseases and Immunity.

Food Production: Importance of Bacteria, Fungi, Horticulture, organic farming and animal husbandry.

• Physics –

[10 Marks]

Light – Rectilinear Propagation of light. Regular, irregular reflection, reflection at plane and spherical surfaces. Refraction – through glass slab, prism, spherical surfaces, optical instruments – simple microscope, Compound microscope, Astronomical Telescope Camera, Eye, Defects of eye – Myopia, Hypermetropia.

Heat – Concept of thermal equilibrium. Dependence of quantity of heat on mass, nature of material, increase in temperature of the body. Units of heat. Heat capacity. Specific heat capacity. Calorimetry. Latent heat.

Properties of solids, liquids and gases – Kinetic Theory of Matter. Effects of conduction. Convection and Radiation. Concept of surface tension. Pascal's law. Archimedes Principle. Floatation. Liquid Pressure. Atmospheric pressure- applications, measurement.

Static Electricity – Electric charge. Origin of charges, charging a body – by conduction, induction. Gold leaf electroscope. Atmospheric electricity. Lightning conductors.

Magnetism and electricity – Properties of magnets, magnetic lines of force, electromagnets (basic concept), Magnetic field – due to an electric current, due to a current in a straight conductor, due to a current coil, a solenoid. Basic concept of electromagnetic induction and alternating current.

Force and motion – Types of motion. Simple pendulum. Distance. Displacement. Speed. Velocity. Acceleration.