Syllabus for the Admission / Admission Cum Scholarship Test - 2027

Type of Questions: MCQ Pattern (Multiple Choice Question)

For Class Challengers / Repeaters (NEET / JEE) Batch

Syllabus: Complete Syllabus of Class XII

Subject	Course	No. of Questions	Marks
Physics	NEET/JEE	30	120
Chemistry	NEET/JEE	30	120
Botany	NEET	20	80
Zoology	NEET	20	80
Mathematics	JEE	40	160

DETAILED SYLLABUS

For Class–XI (Eleven) Test

Based on Class IX & X Course

1. Mathematics (30 Questions = 120 Marks):-

Number Systems, Polynomials, Pair of linear equation in two variable, Quadratic equation, Arithmetic Progression, Co-ordinate Geometry, Trigonometry up to Application, Probability, Triangle, Quadrilaterals, Circle, Mensuration, Statistics.

2. Science (45 Questions = 180 Marks):-

a) Physics (15 Questions = 60 Marks):

Light reflection & refraction, Electricity, Magnetic effects of electric current, Human Eye & Colourful world, Sources of Energy, Speed & Velocity, Equations of motion, Graphs of motion, Motion under gravity, Newton's Law of motion, Work Energy and Power, Gravitation.

b) Chemistry (15 Questions = 60 Marks):

Matter in our Surroundings, Is matter around us pure? , Atoms & Molecules, Structure of Atom, Chemical Reactions & Equations, Acids, bases & salts, Metals & non- metals, Carbon & its compounds, Periodic Classification of Elements.

c) Biology (15 Questions = 60 Marks):

Cell the fundamental unit of Life, Tissues, Diversity in Living Organisms, Life Processes, Control & Coordination, Heredity and Evolution, Reproduction in organisms.

3. English (15 Questions = 60 Marks):-

Tense, Voice, Vocabulary & Error Correction, Preposition, Tag Question, Determiners, Narration and Synthesis of Sentences.

4. Mental Ability Test& Reasoning (10 Questions = 40 Marks):-

1. Logical Reasoning:- Statements and Conclusions, Arguments and Assumptions, Syllogisms, Number Series and Patterns; 2. Mathematical Reasoning:-Numbers and Operations, Algebraic Expressions and Equations, Geometry and Mensuration, Data Analysis and Interpretation; 3. Non-Verbal Reasoning:- Visual Puzzles and Patterns, Mirror Images and Reflections, Cubes and Dice, Paper Folding and Cutting; 4. Verbal Reasoning:- Analogies and Relationships, Word Formation and Patterns, Coding and Decoding, Classification and Categorization; 5. Critical Thinking:- Identifying Bias and Assumptions, Evaluating Arguments and Evidence, Making Inferences and Drawing Conclusions, Resolving Moral or Ethical Dilemmas.

DETAILED SYLLABUS

For Class – IX (Nine) Test

Based on Class VIII (Eight) Course

1. Mathematics (30 Questions = 120 Marks):-

Linear equation in one variable, Number System, Quadrilaterals (All type) with properties, Data handling, Comparing Quantities, Algebraic expression and identities, Mensuration, Factorisation, Introduction to graph. Direct & inverse variation, time & work problems, Basic inequality, Square & square roots, Cube and cube roots, LCM and HCF

2. Science (45 Questions = 180 Marks):

a) Physics (15 Questions = 60 Marks):-

Measurement of time and motion, Force and pressure, Friction, Light, Sound, Chemical effects of electric current, Stars and the solar system.

b) Chemistry (15 Questions = 60 Marks):-

Metals and non-metals, Combustion and flame, Coal and Petroleum, Synthetic fibre and plastics.

c) Biology (15 Questions = 60 Marks):-

Crop production: types of crops, uses and importance of manures and different type of fertilizers, cropping processes; About microorganisms: its types, usefulness and harmfulness, about fermentation, Pasteurization, vaccine and its working process, antibiotics, antibodies – antigens, diseases caused by microorganisms and its prevention, nitrogen cycle; Conservation of wildlife: Its importance, and the methods of conserving of wildlife; Basic concept of cell: types of cells, different cell organelles and their functions, gene, animal cell and plant cell difference; Basic concept of Reproduction in Animals: About male reproductive organ and female reproductive organs, process of fertilization, types of reproduction; Concept of Adolescence: Changes during adolescence, Hormones and their functions during adolescence, concept of sex determination in a baby; About population and its Harmfulness: soil pollution, air pollution, water pollution, Global warning, acid rain, what can be done to minimize pollution.

3. English (15 Questions = 60 Marks):-

Tense, Determiner, Preposition, Voice change, Tag questions, Vocabulary(Synonyms and Antonyms), Parts of Speech

4. Mental Ability Test & Reasoning (10 Questions = 40 Marks):-

1. Logical Reasoning:- Statements and Conclusions, Arguments and Assumptions, Syllogisms, Number Series and Patterns; 2. Mathematical Reasoning:-Numbers and Operations, Algebraic Expressions and Equations, Geometry and Mensuration, Data Analysis and Interpretation; 3. Non-Verbal Reasoning:- Visual Puzzles and Patterns, Mirror Images and Reflections, Cubes and Dice, Paper Folding and Cutting; 4. Verbal Reasoning:- Analogies and Relationships, Word Formation and Patterns, Coding and Decoding, Classification and Categorization; 5. Critical Thinking:-, Identifying Bias and Assumptions, Evaluating Arguments and Evidence, Making Inferences and Drawing Conclusions, Resolving Moral or Ethical Dilemmas.

DETAILED SYLLABUS

For Class –VIII (Eight) Test

Based on Class VII (Seven) Course

1. Mathematics (30 Questions = 120 Marks):-

Fractions and Decimal, Simple equation, Comparing quantities, Rational numbers, Perimeter and Area, Algebraic expressions, Exponent and Power. Lines & angles, Triangles, Visualizing solid shapes.

2. Science (45 Questions = 180 Marks):-

a) Physics (15 Questions = 60 Marks):-

Electric Current and its effects, Light, Motion and Time, Heat

b) Chemistry (15 Questions = 60 Marks):-

Fibre to fabric, Acids, Bases and Salts, Physical and Chemical changes.

c) Biology (15 Questions = 60 Marks):-

Food, Components of food, Digestive system in human, Respiratory system in humans, Respiration and Breathing, Transportation of food and water in plants, Human circulatory system, Human excretory system, Types of reproduction in plants, Vegetative reproduction in plants, Reproductive organs in plants.

3. English (15 Questions = 60 Marks):-

Tense, Voice, Preposition, Article, Affirmative-Interrogative-Negative Sentences & Vocabulary. Phrases and Idioms.

4. Mental Ability Test& Reasoning (10 Questions = 40 Marks):-

1. Logical Reasoning:- Patterns and Series, Analogies and Relationships, Coding and Decoding, Blood Relations, Syllogisms; 2. Mathematical Reasoning:-Numbers and Operations, Basic Algebra, Geometry and Mensuration, Data Analysis and Interpretation; 3. Non-Verbal Reasoning:- Visual Puzzles and Patterns, Mirror Images and Reflections, Cubes and Dice, Paper Folding and Cutting; 4. Verbal Reasoning:- Word Formation and Patterns, Classification and Categorization, Word Analogies, Logical Completion of Sentences; 5. Critical Thinking:- Identifying Bias and Assumptions, Evaluating Arguments and Evidence, Making Inferences and Drawing Conclusions, Identifying next numbers in a series, Solving simple logic grids, Understanding basic geometric shapes, Solving simple algebraic equations, Identifying mirror images and reflections, Completing word patterns, Solving simple syllogisms.

DETAILED SYLLABUS

For Class – VII (Seven) Test

Based on Class VI (Six) Course

1. Mathematics (30 Questions = 120 Marks):-

Linear equation in one variable, Rational number, Understanding quadrilateral, Probability, Square and square roots, Cube and cube roots, Algebraic expressions, Mensuration, Exponents and powers, Proportions, Factorisation, Graphs, Comparing quantities, Lines and angles, Triangle and its properties.

2. Science (45 Questions = 180 Marks):-

Electricity And Circuits, Measurement & Motion, Light Shadows & Reflection, Magnetism, Food Sources & Its Componenets, Fibres To Fabric, Plants Around us, Movement In Animals, Habitats And Adaptations, Sorting Materials, Seperation of Substances, Changes around us.

3. English (15 Questions = 60 Marks):-

Synonym, Antonym, Parts of Speech, Jumbled Words, Types of Sentences, Voice and Vocabulary Article.

4. Mental Ability Test & Reasoning (10 Questions = 40 Marks):-

1. Logical Reasoning:- Patterns and Series, Analogies and Relationships, Coding and Decoding, Blood Relations, Syllogisms; 2. Mathematical Reasoning:-Numbers and Operations, Basic Algebra, Geometry and Mensuration, Data Analysis and Interpretation; 3. Non-Verbal Reasoning:- Visual Puzzles and Patterns, Mirror Images and Reflections, Cubes and Dice, Paper Folding and Cutting; 4. Verbal Reasoning:- Word Formation and Patterns, Classification and Categorization, Word Analogies, Logical Completion of Sentences; 5. Critical Thinking:- Identifying Bias and Assumptions, Evaluating Arguments and Evidence, Making Inferences and Drawing Conclusions, Identifying next numbers in a series, Solving simple logic grids, Understanding basic geometric shapes, Solving simple algebraic equations, Identifying mirror images and reflections, Completing word patterns, Solving simple syllogisms.

DETAILED SYLLABUS

For Class – VI (Six) Test

Based on Class V (Five) Course

1. Mathematics (30 Questions = 120 Marks):-

Number and number names, Indian and international numeration system, Roman numerals, Making numbers with repetition of digits, Operation on numbers, Estimation, Factors and multiples, Test of divisibility , Prime factorisation, L.C.M and H.C.F, Fraction, Decimals, Basic geometrical concepts, Symmetry.

2. Science (45 Questions = 180 Marks) :-

Reproduction In Plants, Adaptation In Animals, Bones And Muscles, Nervous System, Nutrition And Health, Matter, Rocks , Minerals & Soil, Simple Machine, Air & Water, Sun , Moon & Planets, Natural Disasters.

3. English (15 Questions = 60 Marks):-

Synonym, Antonym, Parts of Speech, Jumbled Words, and Vocabulary (choose the right meaning)

4. Mental Ability Test & Reasoning (10 Questions = 40 Marks):-

1. Logical Reasoning:- Patterns and Series, Analogies and Relationships, Coding and Decoding, Blood Relations, Syllogisms; 2. Mathematical Reasoning:-Numbers and Operations, Basic Algebra, Geometry and Mensuration, Data Analysis and Interpretation; 3. Non-Verbal Reasoning:- Visual Puzzles and Patterns, Mirror Images and Reflections, Cubes and Dice, Paper Folding and Cutting; 4. Verbal Reasoning:- Word Formation and Patterns, Classification and Categorization, Word Analogies, Logical Completion of Sentences; 5. Critical Thinking:- Identifying Bias and Assumptions, Evaluating Arguments and Evidence, Making Inferences and Drawing Conclusions, Identifying next numbers in a series, Solving simple logic grids, Understanding basic geometric shapes, Solving simple algebraic equations, Identifying mirror images and reflections, Completing word patterns, Solving simple syllogisms.