

MATHEMATICS

Syllabi for Mathematics

1. Rational Numbers and Decimal Numbers
2. Simplification
3. Sets
4. Rate, Ratio and Proportion
5. Financial Arithmetic
6. Squares and Square Roots
7. Number Sequence and Patterns
8. Algebraic Expressions
9. Linear Equation
10. Distance, Speed and Time
11. Perimeter and Area
12. Practical Geometry
13. Angle Properties of Polygons
14. Transformation
15. Statistics
16. Probability

Specimen Multiple Choice Questions

(i) A rational number is terminating decimal, if its denominator has no prime factor other than:

- | | |
|------------|------------|
| a) 2 and 3 | b) 2 and 5 |
| c) 3 and 5 | d) 2 and 7 |

(ii) If the perimeter of a square shaped garden is 40m then its area is:

- | | |
|--------------------|---------------------|
| a) 100m^2 | b) 400m^2 |
| c) 160m^2 | d) 1600m^2 |

(iii) When we convert 36 km/hr into m/sec, we get:

- | | |
|-------------|-------------|
| a) 1 m/sec | b) 5 m/sec |
| c) 10 m/sec | d) 20 m/sec |

(iv) $x^2 - 1 =$ _____

- | | |
|---------------------|---------------------|
| a) $(x - 1)^2$ | b) $(x + 1)^2$ |
| c) $(x + 1)(x - 1)$ | d) $(x - 1)(x + 1)$ |

(v) A line segment joining two points on a circle is called:

- | | |
|-----------|-------------|
| a) chord | b) arc |
| c) radius | d) diameter |

GENERAL SCIENCE

Syllabi for General Science

1. Plant Systems & Reproduction in plants
2. Human Respiratory and Circulatory Systems
3. Immunity and Diseases
4. Environment and Feeding Relationship
5. Water
6. Structure of an Atom
7. Physical and Chemical Changes & processes
8. Chemical Bonds Solution
9. Matter and its properties
10. Some common gases
11. Force and Motion
12. Dispersion of light
13. Waves and Energy
14. Sound
15. Heat and Temperature
16. Circuit, Electric Current and Magnetism
17. Atmospheric Pressure
18. Technology in Everyday Life
19. Earth, Space & Oceans

Specimen Multiple Choice Questions

i) Smallest unit of matter which can take part in chemical change is called?

- | | |
|-------------|-------------|
| a) atom | b) molecule |
| c) compound | d) mixture |

ii) The sum of protons and neutrons present in the nucleus of an atom is called:

- | | |
|------------------|-----------------------|
| a) valence shell | b) number of neutrons |
| c) mass number | d) atomic number |

iii) Which one is caused by the deficiency of vitamin A?

- | | |
|-----------------|--------------------|
| a) malaria | b) typhoid |
| c) tuberculosis | d) night blindness |

iv) The vascular tissue which carries water from roots to the level is:

- | | |
|--------------|-----------|
| a) phloem | b) xylem |
| c) epidermis | d) cortex |

v) Wheel and axle is used in how many ways:

- | | |
|---------|----------|
| a) two | b) three |
| c) four | d) five |