Mathematics

Recommended Time Table

Class-9

Chapter Names	Concepts
1. Surds (6 hours)	• Introduction • Definition of surds • Types of surds **(1 hour)** • Comparision of surds • Operation of surds • Rationalization of surds **(1 hour)** • Problems **(3 hours)** • Doubt Clarification **(1 hour)**
2. Logarithms (5 hours)	• Introduction • Definition of logarithm • Laws of logarithms **(1 hour)** • Common and Natural Logarithms • Calculation using logarithms **(1 hour)** • Problems **(2 hours)** • Doubt Clarification **(1 hour)**
3. Relations (5 hours)	• Introduction • Definition of ordered pair • Definition of relation • Domain and Range • Describing a relation **(1 hour)** • Types of relations • Properties of relations **(1 hour)** • Problems **(2 hours)** • Doubt Clarification **(1 hour)**
4. Mensuration - II (9 hours)	• Introduction • Volume and Surface Area of Cube • Volume and Surface Area of Cuboid • Volume and Surface Area of Cylinder • Volume and Surface Area of Hollow Cylinder • Volume and Surface Area of Prism **(1 hour)** • Volume and Surface Area of Pyramid • Volume and Surface Area of Cone • Volume and Surface Area of Sphere • Volume and Surface Area of Hemisphere • Composite figures **(1 hour)** • Problems **(6 hours)** • Doubt Clarification **(1 hour)**
5. Polynomials - II (5 hours)	• Introduction • Factorization of polynomials • LCM and HCF of polynomials **(1 hour)** • Square root of polynomials **(1 hour)** • Problems **(2 hours)** • Doubt Clarification **(1 hour)**
6. Quadratic Equations - I (6 hours)	• Introduction • Definition of quadratic equaions • Roots of quadratic equaions **(1 hour)** • Equations reducible to quadratic form **(1 hour)** • Problems **(3 hours)** • Doubt Clarification **(1 hour)**
7. Inequalities - II (6 hours)	• Introduction • Definition of modulus • Logarithmic inequalities **(1 hour)** • Quadratic inequalities• Triangular inequalities **(1 hour)** • Problems **(3 hours)** • Doubt Clarification **(1 hour)**

Chapter Names	Concepts	
Term 1	**Chapter 1 - 7 MCQ - 50 50 x 1 = 50**	
8. Permutations & Combinations (8 hours)	• Introduction • Fundamental principle of counting • Definition of permutations	**(1 hour)**
	• Permutations of dissimilar things • Permutations of similar things	**(1 hour)**
	• Permutations of repetition of things • Circular permutations	**(1 hour)**
	• Definition of combination • Combination of 'n' dissimilar things • Relation between ${}^{n}P_{r}$ and ${}^{n}C_{r}$ • Number of diagonals in a regular polygon	**(1 hour)**
	• Problems	**(3 hours)**
	• Doubt Clarification	**(1 hour)**
9. Plane Geometry - II (8 hours)	• Introduction • Definition and Classification of Polygons • Quadrilaterals • Properties of quadrilaterals	**(1 hour)**
	• Theorems on quadrilaterals	**(3 hours)**
	• Regular polygons • Properties of polygons	**(1 hour)**
	• Problems	**(2 hours)**
	• Doubt Clarification	**(1 hour)**
10. Coordinate Geometry - II (5 hours)	• Introduction • Distance between point • Midpoint of a line segment • Section formula	**(1 hour)**
	• Problems	**(3 hours)**
	• Doubt Clarification	**(1 hour)**
11. Number Theory - II (6 hours)	• Introduction • Peano postulates • Fermat and Wilson's Theorems	**(1 hour)**
Term 2	**Chapter 1 - 11 MCQ - 50 50 x 1 = 50**	
	• Fundamental Theorem of Arithmetic • Concept of powers	**(1 hour)**
	• Problems	**(3 hours)**
	• Doubt Clarification	**(1 hour)**
12. Trigonometry - I (7 hours)	• Introduction • Measurement of Angles • Trigonometric ratios	**(1 hour)**
	• Compound angles	**(1 hour)**
	• Multiple and Submultiple Angles	**(1 hour)**
	• Problems	**(3 hours)**
	• Doubt Clarification	**(1 hour)**
13. Matrices (9 hours)	• Introduction • Definition of matrix • Types of matrices • Scalar multiplication	**(1 hour)**
Grand Test	**Chapter 1 - 13 MCQ - 50 50 x 1 = 50**	
	• Algebra of matrices and its properties • Transpose of matrices • Orthogonal matrix	**(1 hour)**
	• Determinants	**(1 hour)**
	• Inverse of a matrix	**(1 hour)**
	• Methods of solving system of linear equations	**(1 hour)**
	• Problems	**(3 hour)**
	• Doubt Clarification	**(1 hour)**

Chapter	Concept	Problems	Total No.of hours
1. Surds	2	4	6
2. Logarithms	2	3	5
3. Relations	2	3	5
4. Mensuration - II	2	7	9
5. Polynomials - II	2	3	5
6. Quadratic Equations - I	2	4	6
7. Inequalities - II	2	4	6
8. Permutations and Combinations	4	4	8
9. Plane Geometry - II	5	3	8
10. Coordinate Geometry - II	1	4	5
11. Number Theory - II	2	4	6
12. Trigonometry - I	3	4	7
13. Matrices	5	4	9