The question will be based on the concept of the following syllabus

**CLASS IX - MATHS**

1. **Number Systems:** Irrational Numbers, Real Numbers and their Decimal Expansions, Representing Real Numbers on the Number Line, Operations on Real Numbers, Laws of Exponents for Real Numbers.

2. **Polynomials:** Polynomials in One Variable, Zeroes of a Polynomial, Remainder Theorem, Factorisation of Polynomials, Algebraic Identities.

3. **Coordinate Geometry:** Cartesian System, Plotting a Point in the Plane if its, Coordinates are given

4. **Linear Equations in Two Variables:** Linear Equations, Solution of a Linear Equation, Graph of a Linear Equation in Two Variables, Equations of Lines Parallel to x-axis and y-axis.

5. **Introduction to Euclid’s Geometry:** Euclid’s Definitions, Axioms and Postulates, Equivalent Versions of Euclid’s Fifth Postulate

6. **Lines and Angles:** Basic Terms and Definitions, Intersecting Lines and Non-intersecting Lines, Pairs of Angles, Parallel Lines and a Transversal, Lines Parallel to the same Line, Angle Sum Property of a Triangle.

7. **Triangles:** Congruence of Triangles, Criteria for Congruence of Triangles, Some Properties of a Triangle, Some More Criteria for Congruence of Triangles, Inequalities in a Triangle

8. **Quadrilaterals:** Angle Sum Property of a Quadrilateral, Types of Quadrilaterals, Properties of a Parallelogram, Another Condition for a Quadrilateral to be a Parallelogram, The Mid-point Theorem

9. **Areas of Parallelograms and Triangles:** Figures on the same Base and Between the same Parallels, Parallelograms on the same Base and between the same Parallels, Triangles on the same Base and between the same Parallels

10. **Circles:** Circles and its Related Terms: A Review, Angle Subtended by a Chord at a Point, Perpendicular from the Centre to a Chord, Circle through Three Points, Equal Chords and their Distances from the Centre, Angle Subtended by an Arc of a Circle, Cyclic Quadrilaterals

11. **Constructions:** Basic Constructions, Some Constructions of Triangles

12. **Heron’s Formula:** Area of a Triangle – by Heron’s Formula, Application of Heron’s Formula in finding Areas of Quadrilaterals

13. **Surface Areas and Volumes:** Surface Area of a Cuboid and a Cube, Surface Area of a Right Circular Cylinder, Surface Area of a Right Circular Cone, Surface Area of a Sphere, Volume of a Cuboid, Volume of a Cylinder, Volume of a Right Circular Cone, Volume of a Sphere

14. **Statistics:** Collection of Data, Presentation of Data, Graphical Representation of Data, Measures of Central Tendency

15. **Probability:** Probability – an Experimental Approach