

Question Paper – 5

ONE MARK QUESTIONS

1. If in an AP, $a_n = 4 - 3n$, find 24th term.
2. Write the formula to find the volume of the given figure.
3. If the value of the discriminant of the quadratic equation is negative, then what is the nature of roots?
4. Write the standard form quadratic equation.
5. If $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ are representing the coincident lines, then write the relationship between their corresponding coefficients.
6. Write the measure of angle between the tangent drawn to the circle and the radius of circle through the point of contact.



TWO MARKS QUESTIONS

7. Find the 35th term of an AP 10, 7, 4.....
8. If $\tan \theta = \frac{3}{4}$, find the values of cosec θ and cos θ
9. Solve: $5x + 3y = 35$ and $x + 2y = 14$ by elimination method.
10. Solve: $2x^2 - 5x + 6 = 0$ using formula.
11. Draw a circle of radius 4 cm. from a point 9 cm away from the circle, construct the pair of tangent to the circle.
12. Find the distance between the points (2,3) and (4,1).
13. Find the discriminant and nature of the roots of equation $2x^2 - 7x + 3 = 0$.

THREE MARKS QUESTIONS

14. Prove that “Tangents drawn from an external point to the circle are equal”.

15. Construct a triangle of sides $BC = 6$ cm, $AB = 5$ cm and $\angle ABC = 60^\circ$ and then a triangle similar to it whose sides are $\frac{3}{4}$ of the corresponding sides of the first triangle.

16. The following table gives production yield per hectare of wheat of 100 farms of a village. Change the distribution to “less than type” distribution, and draw its ogive.

production yield(in kg/hectare)	50-55	55-60	60-65	65-70	70-75	75-80
Number of land	2	8	12	24	38	16

17. The following distribution table gives life of 400 neon bulbs. Find the median of the data.

Life (in hours)	1500-2000	2000-2500	2500-3000	3000-3500	3500-4000	4000-4500	4500-5000
Number of bulbs	14	56	60	86	74	62	48

FOUR MARKS QUESTIONS

18. Solve: $y = 2 - x$ and $y = 2 + x$ graphically.

19. Prove that “if in two triangles, the corresponding angles are equal, then their corresponding sides are in the same ratio (or proportion)”.
