# PAPER-4

## SECTION - A

► **Do as directed. (Q. 1 to 24) [1 Marks Each]** (24)

• **Choose the correct option. (Q. 1 to 6)**

(1) By which number wehave to multiply the equation $x + y = 5$ into equation (i) and $2x - 3y = 4$ from equation to eliminate $y$ ?

   (A) 2                 (B) -2

   (C) 3                 (D) -3

(2) The pair of equations $2x + 3y = 5$ and $4x + 6y = 15$ has

   (A) A unique solution

   (B) The solution of pair of equations is infinitely

   (C) Excectly two solutions

   (D) No solution..

(3) For any AP $a_{20} = $ _____

   (A) $a + 20d$          (B) $a - 20d$

   (C) $a + 19d$          (D) $a - 19d$

(4) Distance is ____ of point $(x, y)$ to origin.

   (A) $\sqrt{x^2 + y^2}$        (B) $\sqrt{x^2 - y^2}$

   (C) $x^2 + y^2$          (D) $x^2 - y^2$

(5) $\tan 45° \cot 45° = $ _____

   (A) $\dfrac{1}{\sqrt{3}}$          (B) $\sqrt{3}$

   (C) 1                 (D) 0.

(6) For any frequency distribution Z-M= ___ X (M-x)

(A) 1                  (B) 2

(C) 3                  (D) 4

- **Fill in the blanks. (Q. 7 to 12)**

(7) $\sqrt{5}$ is _____ number, (rational, irrational, odd)

(8) ∝ and ß are Zeroes of quadratic equation $P(x) = x^2 + x + 1$ then $\infty.ß =$ _____ $(0, 1, 2)$

(9) If value of θ is increased then Value of $\cos\theta$ is _____ . (increase, decrease, equal)

(10) The secant of circle touches / intersects in circle is _____ points $(1, 0, 2)$

(11) Mean of following frequency distribution is 2.6 then $y =$ _____ $(2, 4, 8)$

| $xi$ | 1 | 2 | 3 | 4 | 5 |
|------|---|---|---|---|---|
| $fi$ | 4 | 5 | y | 1 | 2 |

(12) The probability of getting 5 is thrown _____ on a balance die $(\frac{1}{4}, \frac{1}{6}, \frac{5}{6})$

- **Write the statements true or false. (Q. 13 to 16)**

(13) The HCF of 15 and 51 is not 1

(14) Zero of linear polynomial $P(x) = 7x - 5$ is $-\frac{5}{7}$

(15) If $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$ then the pair of equations has no

Solutions.

(16) If the event is not produced then it is called impossible event.

- **Match the following. (Q. 17 to 20)**

| A | | B |
|---|---|---|
| (17) An arc of a circle makes an angle of measure θ at the centre of the circle state the formula to find the area of minor sector | (a) $\frac{1}{2} \times lr$ | |
| (18) A circle has radius r and the length of an arc is l. The formula to find the area of the sector from this is _____ | (b) $\frac{\pi r^2 \theta}{360}$ | |
| | (c) $\frac{\pi r \theta}{360}$ | |

| A | | B |
|---|---|---|
| (19) C.S.A. of cylinder of 7 cm height | (a) $\frac{1}{3}\pi r^2 h$ | |
| (20) Volume of cone | (b) 44 r | |
| | (c) $2\pi r$ | |

- **Solve the following. (Q. 21 to 24)**

(21) Are the given numbers 1, 3, 9, 27, ... forms. an AP?

(22) write definition of tangent of a circle.

(23) write equation to find mean with assumed mean.

(24) find the probability of getting a head when a Coin is tossed once. Also find the probability of getting a tail.