

Practice Paper-6

ASSIGNMENT PAPER

SECTION-A

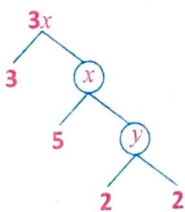
➤ Answer the following questions as required. (Que. 1 to 24) (1 mark each) [24]

● State whether the following statements are true or false : (Que. No.1 to 6) (1 Mark Each)

- $(\sqrt{3} + \sqrt{2})(\sqrt{3} - \sqrt{2})$ is a rational number.
- The power of the polynomial $P(x) = 3 + 5x + x^3 + x^2$ is 3.
- $\sin A$ and $\cos A$ are inverse ratios of each other.
- The maximum value of $\sec\theta$ is 1.
- If the sum of the ages of three friends Daksh, Neil and Samarth 5 years ago is x years, then the sum of their ages after y years is $x + 3y + 15$.
- If $S_n = 12n^2 + 21n$ then $a_n = 24n + 9$.

● Choose the right option so that the statement become true. (Que. No. 7 to 12) (1 Mark Each).

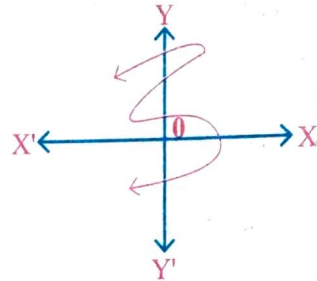
7. $x + y =$ _____ for the given element tree.



- (A) 4 (B) 20 (C) 24 (D) 80
- If the solutions of the equations $a - b = 2$ and $a + b = 4$ are $a = x$, $b = y$ then what are the values of x and y ?
 (A) $x = 3, y = 1$ (B) $x = 1, y = 3$
 (C) $x = -3, y = 1$ (D) $x = 3, y = -1$
 - If the perpendiculars drawn from $P(-3, 2)$ to the y -axis is M then the tangent to the point M is _____.
 (A) $(3, 0)$ (B) $(0, 2)$
 (C) $(-3, 0)$ (D) $(2, 0)$
 - If $D = 0$, so the form of the roots of the quadratic equation $ax^2 + bx + c = 0$ is _____.
 (A) $-\frac{2a}{b}$ (B) $-\frac{b}{2a}$ (C) $\frac{b}{2a}$ (D) $\frac{2a}{b}$
 - If a card is drawn from a deck of 52 cards equally folded, then the probability that the card is a red king is _____.

- (A) $\frac{1}{13}$ (B) $\frac{1}{26}$ (C) $\frac{1}{52}$ (D) $\frac{3}{26}$

12. Given the graph of $x = P(y)$ for a Polynomial $P(x)$ the number of zeroes of $P(x) =$ _____.



- (A) 0 (B) 1 (C) 3 (D) 4

● Choose the most appropriate answer from the given alternatives (Que. No.13 to 18) (1 Mark each)

13. The model class for the frequency distribution given below is _____.

Class	0-5	5-10	10-15	15-20	20-25
Frequency	10	15	12	20	9

(5-10, 15-20, 20-25)

- If the probability of Ramesh winning the match is 0.48, then the probability of Ramesh not winning the match is _____. (0.62, 0.52, 0.02)
- _____ tangents to the circle from a point outside the circle. (one, two, infinity)
- Tangents drawn to the end points of a diameter of a circle are _____ to each other. (Parallel, Perpendicular, intersecting)
- If median $(M) = 26$, Mean $(\bar{x}) = 36$ then mode $(Z) =$ _____. (10, -10, 6)
- In AP 12, $x, y, -2$, then $x + y =$ _____. (10, -10, 11).

● Answer in one sentence, word or static (Que.19 to 24) (1 mark each)

- What is the area of the largest triangle contained in a semi circle of unit radius r ?
- State the formula for finding the major sector.
- State the formula to find the volume of a ten rupee coin.

22. Surahi is combination of which two substances ?

23. State the modal class of the given data below :

Class	0–10	10–20	20–30	30–40	40–50
Frequency	7	15	13	17	10

24. The mean of 8 observations is x . If one observation y is discarded, what is the new mean ?