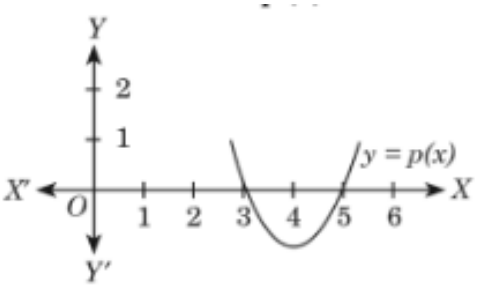
[30]

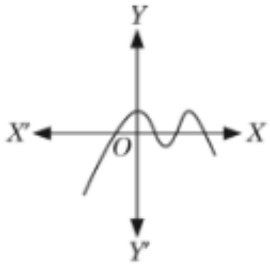
*** Choose the right answer from the given options. [1 Marks Each]**

1. In the figure, graph of a polynomial $p(x)$ is given. Find the zeroes of $p(x)$.



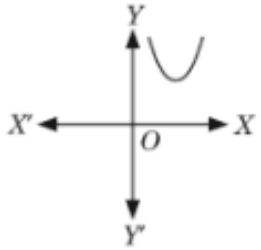
(A) $-3,4$ (B) 3, 5 (C) $-3,5$ (D) 3, 4

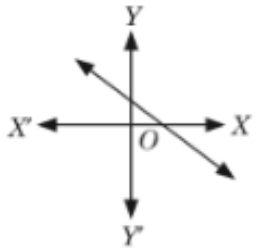
2. The number of zeroes of the polynomial shown in the graph are

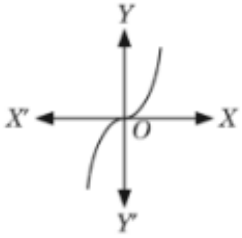


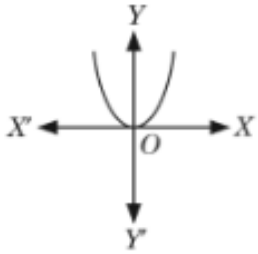
(A) 3 (B) 4 (C) 1 (D) 2

3. Which of the following figure represents the graph of linear polynomial?

(A)


(B)


(C)


(D)


4. The zeroes of the quadratic polynomial $x^2+25x+156$ are
   (A) both positive (B) both negative
   (C) one positive and one negative (D) can't be determined

5. If one root of the polynomial $f(x)=3x^2+11x+p$ is reciprocal of the other, then the value of p is
   (A) 0 (B) 3 (C) $\frac{1}{3}$ (D) -3

6. If the sum of the zeroes of the quadratic polynomial $kx^2+4x+3k$ is equal to their product, then the value of k is
   (A) $-\frac{3}{4}$ (B) $\frac{3}{4}$ (C) $\frac{4}{3}$ (D) $-\frac{4}{3}$

7. The zeroes of the quadratic polynomial x^2+kx+k, where $k>0$
   (A) are both positive (B) are both negative (C) are always equal (D) are always unequal

8. If the sum of the zeroes of the polynomial $p(x)=\left(p^2-23\right)x^2-2x-12$ is 1 , then p takes the value(s) are
   (A) $\sqrt{23}$ (B) -23 (C) 2 (D) ± 5

9. The zeroes of the polynomial x^3-x are
   (A) $0,\pm 2$ (B) $0,\pm 1$ (C) $0,\pm 3$ (D) $0,\pm 4$

10. If one of the zeroes of the quadratic polynomial bx^2+cx+d is 0 , then the other zero is
    (A) $-\frac{b}{d}$ (B) $-\frac{c}{b}$ (C) $\frac{b}{d}$ (D) $\frac{c}{b}$

11. The zeroes of polynomial x^2-5x+6 are
    (A) $-1,0$ (B) 4,5 (C) 3,2 (D) None of these

12. For what value of $p,1$ is a zero of the polynomial $f(x)=2x^2+5x-(3p+1)$?
(A) 3 (B) 5 (C) 2 (D) -1

13. The zeroes of the polynomial $f(x)=x^2-2\sqrt{2}x-16$ are
(A) $\sqrt{2},-\sqrt{2}$ (B) $4\sqrt{2},-2\sqrt{2}$ (C) $-4\sqrt{2},2\sqrt{2}$ (D) $4\sqrt{2},2\sqrt{2}$

14. The zeroes of the polynomial $f(x)=x^2+x-\frac{3}{4}$ are
(A) $-\frac{1}{2},\frac{3}{2}$ (B) $\frac{1}{2},-\frac{3}{2}$ (C) $1,-\frac{3}{2}$ (D) $1,\frac{\sqrt{3}}{2}$

15. If one zero of the quadratic polynomial $2x^2-8x-m$ is $5/2$, then find the other zero.
(A) $\frac{1}{2}$ (B) $\frac{3}{2}$ (C) $\frac{-3}{2}$ (D) $\frac{-1}{2}$

16. If one of the zeroes of the quadratic polynomial $(k-1)x^2+kx+1$ is -3 , then the value of k is
(A) $\frac{4}{3}$ (B) $\frac{-4}{3}$ (C) $\frac{2}{3}$ (D) $\frac{-2}{3}$

17. Is $x=-2$ a zero of the polynomial $p(x)=x^2-2x+8$?
(A) Yes (B) No
(C) May or may not be (D) Can't be determined

18. If 1 is a zero of the polynomial $p(x)=ax^2-3(a-1)x-1$, then find the value of a.
(A) 1 (B) 2 (C) -1 (D) -2

19. If one zero of the polynomial $x^2-5x+3+\sqrt{3}$ is $2+\sqrt{3}$, then the other zero is
(A) $1-\sqrt{3}$ (B) $2-\sqrt{3}$ (C) $3-\sqrt{3}$ (D) $2+\sqrt{3}$

20. If α,β are the zeroes of the polynomial $2y^2+5y+3$, then the value of $\alpha+\beta+\alpha\beta$ is
(A) -2 (B) 2 (C) 1 (D) -1

21. If the product of zeroes of the quadratic polynomial $f(x)=x^2-4x+k$ is 3 , then the value of k is
(A) 3 (B) -3 (C) 2 (D) 1

22. If the product of zeroes of the polynomial ax^2-6x-6 is 4 , then the value of ' a ' is
(A) $\frac{2}{3}$ (B) $\frac{3}{2}$ (C) $\frac{-3}{2}$ (D) $-\frac{2}{3}$

23. If α and β are the zeroes of the polynomial $2x^2+4x+5$, then find the value of $\alpha^3+\beta^3$.
(A) -7 (B) 7 (C) 6 (D) 5

24. Find the other zero of the polynomial $f(x)=x^2-7x-8$, if one of the zeroes is -1 .
(A) 8 (B) -1 (C) -8 (D) 1

25. The value of k such that the quadratic polynomial $x^2-(k+6)x+2(2k+1)$ has sum of the zeroes as half of their product, is
(A) 2 (B) 3 (C) -5 (D) 5

26. If one zero of the polynomial $f(x)=\left(k^2+4\right)x^2+13x+4k$ is reciprocal of the other, then k is equal to
(A) 2 (B) -2 (C) 1 (D) -1

27. If α,β are the zeroes of the polynomial x^2+5x+c , and $\alpha-\beta=3$, then find c.
(A) 2 (B) 3 (C) 4 (D) 1

28. If α and β be the zeroes of the polynomial ax^2+bx+c , then the value of $\sqrt{\frac{\alpha}{\beta}}+\sqrt{\frac{\beta}{\alpha}}$ is
(A) b (B) $\frac{-b}{\sqrt{ac}}$
(C) $-\frac{\sqrt{b}}{ac}$ (D) $\frac{1}{ac}$

29. Zeroes of a quadratic polynomial are in the ratio $2:3$ and their sum is 15 . The product of zeroes of this polynomial is
(A) 36 (B) 48 (C) 54 (D) 60

30. The sum and product of zeroes of $p(x)=63x^2-7x-9$ are S and P respectively.Find the value of $27S+14P$.
(A) -1 (B) 1 (C) 2 (D) -2

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