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Class: -X

Polynomial

Subject: -Mathematics

Multiple Choice Questions (MCQ)

1. The quadratic polynomial whose sum of zeroes is 3 and product of zeroes is -2 is :

- (a) $x^2 + 3x - 2$ (b) $x^2 - 2x + 3$ (c) $x^2 - 3x + 2$ (d) $x^2 - 3x - 2$.

2. If $(x + 1)$ is a factor of $2x^3 + ax^2 + 2bx + 1$, then find the values of a and b given that $2a - 3b = 4$

- (a) $a = -1, b = -2$ (b) $a = 2, b = 5$ (c) $a = 5, b = 2$ (d) $a = 2, b = 0$

3. The number of zeroes that polynomial $f(x) = (x - 2)^2 + 4$ can have is:

- (a) 1 (b) 2 (c) 0 (d) 3

4. The zeroes of the polynomial $f(x) = 4x^2 - 12x + 9$ are:

- (a) $\frac{3}{2}, \frac{3}{2}$ (b) $-\frac{3}{2}, -\frac{3}{2}$ (c) 3, 4 (d) -3, -4

5. If $p(x)$ is a polynomial of at least degree one and $p(k) = 0$, then k is known as

- (a) value of $p(x)$ (b) zero of $p(x)$ (c) constant term of $p(x)$ (d) none

6. If $p(x) = ax + b$, then zero of $p(x)$

- (a) a (b) b (c) $-\frac{a}{b}$ (d) $-\frac{b}{a}$

7. Graph of a quadratic polynomial is a

- (a) Straight line (b) circle (c) parabola (d) ellipse

8. Zeroes of a polynomial can be determined graphically. No. of zeroes of a polynomial is equal to no. of points where the graph of polynomial

- (a) intersects y-axis (b) intersects x-axis
(c) intersects y-axis or intersects x-axis (d) none of these

9. If graph of a polynomial does not intersect the x-axis but intersects y-axis in one point, then no. of zeroes of the polynomial is equal to

- (a) 0 (b) 1 (c) 0 or 1 (d) none of these

10. A polynomial of degree n has

- (a) only 1 zero (b) exactly n zeroes
(c) at most n zeroes (d) more than n zeroes

11. If $p(x) = ax^2 + bx + c$, then $\frac{c}{a}$ is equal to

- (a) 0 (b) 1 (c) sum of zeroes (d) product of zeroes

12. If $p(x) = ax^2 + bx + c$, then $-\frac{b}{a}$ is equal to

- (a) 0 (b) 1 (c) product of zeroes (d) sum of zeroes

13. If $p(x) = ax^2 + bx + c$, and $a + b + c = 0$, then one zero

- (a) $-\frac{b}{a}$ (b) $\frac{c}{a}$ (c) $\frac{b}{c}$ (d) none of these

14. If $p(x) = ax^2 + bx + c$ and $a + c = b$, then one of the zeroes is

- (a) $\frac{b}{a}$ (b) $\frac{c}{a}$ (c) $-\frac{c}{a}$ (d) $-\frac{b}{a}$

15. A quadratic polynomial whose one zero is 6 and sum of the zeroes is 0, is

- (a) $x^2 - 6x + 2$ (b) $x^2 - 36$ (c) $x^2 - 6$ (d) $x^2 - 3$

