

CLASS IX ASSIGNMENT NO. 6

POLYNOMIALS (M.C.Q)

1. The coefficient of x^2 in the polynomial $4x^3 - 4x + 6$ is

- (a) 4 (b) 6 (c) 0 (d) doesn't exist

2. In a cubic polynomial, the highest power of x is

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

3. The value of the polynomial $p(x) = 4x^2 - 4x + 1$ at $x = -1$ is

- (a) 1 (b) -7 (c) 9 (d) 0

4. The number of terms in a trinomial is

- (a) 1 (b) 2 (c) 3 (d) 4.

5. If a polynomial $p(x)$ is divided by $(x-a)$ then the remainder is

- (a) a (b) $-a$ (c) $p(a)$ (d) $p(-a)$

6. The minimum number of terms in a polynomial of degree 5 is

- (a) 5 (b) 4 (c) 3 (d) 1

7. The maximum number of terms in a polynomial of degree 4 is
(a) 2 (b) 3 (c) 4 (d) 5
8. The highest power of x in a quadratic polynomial is
(a) 4 (b) 3 (c) 2 (d) 1
9. Which of the following expressions is a polynomial
(a) $\sqrt{7}x + \sqrt{x}$ (b) $x + \frac{1}{x}$ (c) $4x^2 - 5x + 6$ (d) $\sqrt{x} + \frac{1}{\sqrt{x}}$
10. The number of zeroes in a quadratic polynomial are
(a) 4 (b) 3 (c) 2 (d) 1
11. The zeroes of the polynomial $x(x-5)(x+1)$ are
(a) 0, 5, 1 (b) 5, -1 (c) 0, 5, -1 (d) 0, 1
12. The remainder obtained on dividing the polynomial $x^3 + 3x^2 - 3x - 1$ by $x-1$ is
(a) 2 (b) 1 (c) 0 (d) -1
13. If on dividing the polynomial $2x^3 + ax^2 + 3x - 5$ by $x-1$, the remainder is 7, the value of 'a' is
(a) 5 (b) 0 (c) 7 (d) 6.

14. If $(x-1)$ is a factor of $4x^3 + 3x^2 + kx - 6$ then the value of k is
 (a) 1 (b) 0 (c) -1 (d) 2

15. Factors of $x^2 + 3\sqrt{2}x + 4$ are
 (a) $(x - 2\sqrt{2})(x + \sqrt{2})$ (b) $(x - 2\sqrt{2})(x - \sqrt{2})$
 (c) $(x + 2\sqrt{2})(x + \sqrt{2})$ (d) $(x + 2\sqrt{2})(x - \sqrt{2})$

16. The factors of $x^2 - x - 6$ are
 (a) $(x+3)(x+2)$ (b) $(x+3)(x-2)$
 (c) $(x-3)(x+2)$ (d) $(x-3)(x-2)$

17. If $x + \frac{1}{x} = 2$, then the value of $x^2 + \frac{1}{x^2}$ is
 (a) 4 (b) 3 (c) 2 (d) 1

18. If $x^2 + \frac{1}{x^2} = 11$, then the value of $x - \frac{1}{x}$ is
 (a) 4 (b) 5 (c) 3 (d) 2.

19. Factors of $x^3 - 2x^2 - x + 2$ are
 (a) $(x+1)(x-1)^2$
 (b) $(x-2)(x-1)(x+1)$
 (c) $(x-2)(x+1)^2$
 (d) $(x+2)(x-1)(x+1)$

Q20. The factors of $(a-b)^3 + (b-c)^3 + (c-a)^3$ is

- (a) $3a^2b^2c^2$ (b) $3abc$
(c) $3(a-b)(b-c)(c-a)$ (d) $3(a-b)(b-c)$

Q21. If $a+b+c=0$ then $a^3+b^3+c^3$ is equal to

- (a) $(a+b+c)$ (b) $3ab$ (c) $3abc$ (d) $3bc$

Q22. The value of $(17)^3 + (-12)^3 + (-5)^3$ is

- (a) 1000 (b) 34 (c) 1020 (d) -1020

Q23. Express $4ab$ as the difference of two squares as

- (a) $(a-b)^2 - (a+b)^2$ (b) $(a+2b)^2 - (2a+b)^2$
(c) $(a+b)^2 - (a-b)^2$ (d) NOT possible.

Q24. The value of the polynomial $5x - 4x^2 + 3$ at $x = -1$ is

- (a) -6 (b) 2 (c) 6 (d) 5

Q25. The value of $(104)^3$, using identity is

- (a) 1124864 (b) 1124866 (c) 1124860 (d) 1124868