

**SAINIK SCHOOL GOPALGANJ**  
**SUB - MATHEMATICS**  
**Class-IX**

**ASSIGNMENT - 2**

**Multiple choice questions**

1. Which one is not a polynomial
  - (a)  $4x^2 + 2x - 1$
  - (b)  $x^{-1} + x = 5$
  - (c)  $x^3 - 1$
  - (d)  $y^2 + 5y + 1$
  
2. The polynomial  $px^2 + qx + rx^4 + 5$  is of type
  - (a) linear
  - (b) quadratic
  - (c) cubic
  - (d) Biquadratic
  
3. Identify the polynomial
  - (a)  $x^{-2} + x^{-1} + 5$
  - (b)  $x^2 + 5\sqrt{x} + 7$
  - (c)  $\frac{1}{x^3} + 7$
  - (d)  $3x^2 + 7$
  
4. The zero of the polynomial  $p(x) = 2x + 5$  is
  - (a) 2
  - (b) 5
  - (c)  $\frac{2}{5}$
  - (d)  $-\frac{5}{2}$
  
5. The number of zeros of  $x^2 + 4x + 2$ 
  - (a) 1
  - (b) 2

- (c) 3  
(d) none of these
6. The polynomial of type  $ax^2 + bx + c$ ,  $a = 0$  is of type  
(a) linear  
(b) quadratic  
(c) cubic  
(d) Biquadratic
7. The value of  $k$ , if  $(x - 1)$  is a factor of  $4x^3 + 3x^2 - 4x + k$ , is  
(a) 1  
(b) 2  
(c)  $-3$   
(d) 3
8. The degree of polynomial  $p(x) = x + \sqrt{x^2 + 1}$  is  
(a) 0  
(b) 2  
(c) 1  
(d) 3
9. If  $3 + 5 - 8 = 0$ , then the value of  $(3)^3 + (5)^3 - (8)^3$  is  
(a) 260  
(b)  $-360$   
(c)  $-160$   
(d) 160
10. If value of  $104 \times 96$  is  
(a) 9984  
(b) 9469  
(c) 10234  
(d) 11324

Short Answer type

11. The value of  $5.63 \times 5.63 + 11.26 \times 2.37 + 2.37 \times 2.37$  is

12. The value of  $\frac{(361)^3 + (139)^3}{(361)^2 - 361 \times 139 + (139)^2}$  is

13. If  $x + y = 3$ ,  $x^2 + y^2 = 5$  then  $xy$  is

14. If one of the factor of  $x^2 + x - 20$  is  $(x + 5)$ . Find the other

15. Factorize of  $x^3 + 1$

16. If  $x = \frac{1}{2 - \sqrt{3}}$ , then the value of  $x^2 - 4x + 1$  is equal to:

17. If  $x + y + 2 = 0$ , then  $x^3 + y^3 + 8$  is equal to:

18. If  $\frac{a}{b} + \frac{b}{a} = 1$ , ( $ab \neq 0$ ), then the value of  $a^3 + b^3$  is equal to:

19. If  $8x^4 - 8x^2 + 7$  is divided by  $2x + 1$ , the remainder is:

20. If  $p(x) = x^2 - 2\sqrt{2}x + 1$ , then value of  $p(2\sqrt{2})$  is?

Long Answer type:-

21. Find the factors of polynomial  $4x^2 + 8x + 3$

22. If  $x^3 + 3x^2 + 3x + 1$  is divided by  $x + 1$ , then the remainder is:

23. If  $x + 2$  and  $x - 2$  are the factors of  $ax^4 + 2x - 3x^2 + bx - 4$ , then find the value of  $a + b =$

24. If  $a + b + c = 5$  and  $ab + bc + ca = 10$  then  $a^3 + b^3 + c^3 - 3abc$  is

Complete all question of book from Exercise 2.1 to 2.6

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