

SUBJECT- MATHEMATICS, CLASS-X
CHAPTER-2 (POLYNOMIAL)
WORKSHEET (BASIC)

TIME-45 MINS

MAXIMUM MARKS-20

Choose the correct option. (2X1=2)

1. The degree of polynomial $x^5 - x^4 + 7$ is:

- (a) 5 (b) 4 (c) 2 (d) 0

2. At how many points the given polynomial $(x + 1)(x + 3)x$ intersects with x-axis :

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

Fill in the blanks: (2X1=2)

3: The degree of a constant polynomial is-----.

4: The graph of a quadratic polynomial is called as ----- .

Answer the following: (2X1=2)

5: Find a quadratic polynomial whose roots are 2, and $-1/2$.

6: Find the product of zeroes in the polynomial $3x^2 - 3x - 6$.

Short Answer Type Questions-I: (2X2=4)

7: Find the sum and product of the zeros of the polynomial $9x^2 - 5$.

8: If the sum of the zeros of the quadratic polynomial $kx^2 + 3x + 4$ is equal to their product, then find the value of k.

Short Answer Type Questions-II: (2X3=6)

9: If α and β are zeros of $p(x) = 2x^2 - x - 6$, then find the value of $\alpha^{-1} + \beta^{-1}$

10: Find zeroes of the Polynomial $p(x) = 4x^2 + 5\sqrt{2}x - 3$ & verify relationship between the zeroes and the co-efficient of the polynomials.

Long Answer Type Question (1X4=4)

11: If the polynomial $x^4 + 2x^3 + 8x^2 + 12x + 18$ is divided by another polynomial $x^2 + 5$, the remainder comes out to be $px + q$, find the value of p and q.

-----x-----

