

Class Test on Algebraic Expressions (Class 8)

Full Marks - 10

Answer the following questions.

$2 \times 3 = 6$

- 1) **Multiply:** $(2.5a - 0.5b)$ and $(2.5a + 0.5b + c)$
- 2) If $x - \frac{1}{x} = 3$, find the value of $x^2 + \frac{1}{x^2}$.
- 3) Simplify, $x^3(2x^2 - 3) - 3x^2(4x - x^3) - 7x^5$ and find its value at $x = -1$.

Choose the correct option.

$1 \times 4 = 4$

- 4) Which of the following is the value of $\left(x + \frac{1}{x}\right)^2$?

I. $x^2 + \frac{1}{x^2}$

II. $x^2 - \frac{1}{x^2}$

III. $x^2 + \frac{1}{x^2} + 2$

IV. $x^2 + \frac{1}{x^2} + 2x$

- 5) Which of the following is obtained by subtracting $x^2 - y^2$ from $y^2 - x^2$?

I. $-2(x^2 - y^2)$

II. 0

III. $2(x^2 + y^2)$

IV. $2(x^2 - y^2)$

- 6) What degree does $x^3 - x^2y^2 - 8y^2 + 2$ have?

I. 2

II. 3

III. 4

IV. 7

- 7) pqr is what type of polynomial?

I. Monomial

II. Binomial

III. Trimonial

IV. None of these
