Unique Paper Code: MATH/2026/EXP/7/0231
Year: 2026 Chapter: Algebraic Expressions Class: 7 S.No.: 0231

Instructions:

1. This test contains 15 multiple-choice questions.
2. Each question has 4 choices. Choose the correct one.
3. Marks will be awarded for correct answers only.

Algebraic Expressions

1. If $A = 2m^2 - 5mn + n^2$, $B = -3m^2 + 4mn - 2n^2$, and $C = m^2 + 3mn + n^2$, what is the value of $A - B + C$?
   (a) $6m^2 - 4mn + 4n^2$
   (b) $6m^2 + 12mn$
   (c) $6m^2 + 2mn + 4n^2$
   (d) $0m^2 + 2mn + 0n^2$
2. The sum of the coefficients of x^2y and xy^2 in the expression $7x^2y - 4xy^2 + 3x^2y^2 - 9$ is:
   (a) 11
   (b) 3
   (c) -3
   (d) 7
3. What should be subtracted from $10p - 7q + 15r$ to obtain $-2p + 3q - 8r$?
   (a) $12p - 10q + 23r$
   (b) $8p - 4q + 7r$
   (c) $-12p + 10q - 23r$
   (d) $12p - 4q + 7r$
4. Simplify: $\frac{1}{3}(9a - 6b + 12) - \frac{1}{2}(4a + 2b - 8)$
   (a) $a - 3b + 8$
   (b) $a - 3b + 4$
   (c) $a + 3b + 8$
   (d) $5a - 5b + 12$
5. Which of the following is a pair of like terms?
   (a) $8x^2yz$ and $8xy^2z$
   (b) 15 and $15a$

(c) $-11p^2q$ and $7qp^2$

(d) $4m^3n^2$ and $4m^2n^3$

6. The length of a rectangle is $(5k + 2)$ units and its breadth is $(3k - 1)$ units. What is the algebraic expression for the perimeter?

   (a) $16k + 2$ units

   (b) $8k + 1$ units

   (c) $16k + 1$ units

   (d) $16k + 3$ units

7. The constant term in the sum of $2x^2 - 8$, $-3x^2 + 5x + 10$, and $x^2 - 5x - 1$ is:

   (a) 1

   (b) 10

   (c) -8

   (d) 2

8. If the expression $3u^2v - 2uv^2$ is multiplied by -1 and then added to $-5u^2v + 7uv^2$, the result is:

   (a) $-8u^2v + 9uv^2$

   (b) $2u^2v - 9uv^2$

   (c) $-2u^2v + 5uv^2$

   (d) $-8u^2v + 5uv^2$

9. Simplify: $2a - [3b - \{4a - (5b - 6a - 7b)\}]$

   (a) $4a - 5b$

   (b) $-8a + 9b$

   (c) $-8a - 5b$

   (d) $4a + 9b$

10. For the expression $\frac{4xy}{5} - \frac{2x^2}{3} + 9$, identify the correct statement.

    (a) The coefficient of xy is 4.

    (b) The terms $\frac{4xy}{5}$ and $-\frac{2x^2}{3}$ are like terms.

    (c) The numerical coefficient of the second term is $\frac{2}{3}$.

    (d) It has two variable terms and one constant term.

11. Rohan has $Rs.(12x + 50)$. He spends $Rs.(4x - 25)$ on a gift and $Rs.(3x + 15)$ on food. The simplified expression for the money left is:

    (a) $Rs.(5x + 90)$

    (b) $Rs.(5x + 60)$

    (c) $Rs.(5x + 10)$

(d) $Rs.(19x + 40)$

12. The number of terms in the simplified form of $5.2a^2 - 3.1a + 0.8a^2 - a + 4$ is:

    (a) 2

    (b) 3

    (c) 4

    (d) 5

13. What is the result when the sum of $-2f^2 + 5fg$ and $3f^2 - 8fg$ is subtracted from $4f^2 - fg$?

    (a) $3f^2 + 2fg$

    (b) $5f^2 - 14fg$

    (c) $3f^2 - 14fg$

    (d) $9f^2 - 14fg$

14. The product of a number x and 3 is added to 7, and the sum is then divided by 2. The algebraic expression for this is:

    (a) $\frac{3x+7}{2}$

    (b) $\frac{3(x+7)}{2}$

    (c) $3x + \frac{7}{2}$

    (d) $\frac{x}{2} + \frac{7}{2}$

15. Which of the following expressions has a constant term of 0?

    (a) $3z^2 - 5z + z$

    (b) $4 - 2y^2 + 4$

    (c) $\frac{p}{2} + \frac{q}{3}$

    (d) $7m - 6n + 0$