Note : All questions carry 1 mark each.

1. Write the algebraic expression for: Product of numbers a and b subtracted from 23.

   (a) 23 – ab (b) ab –23 (c) 23 + ab (d) 23ab

2. Find the number of terms that the expression, $p^2 - 3q^2 + 5r^2 - 2pqr$ has

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

3. The factors of $-3ab^2c$ are

   (a) $-3 \times a$ (b) $-a \times b \times c$ (c) $-3 \times a \times b \times b \times c$ (d) $-3 \times a \times b \times c$

4. The coefficient of y^2 in the second term of the expression, $ax^2y - bxy^2 + cy^2$ is

   (a) $-bx$ (b) c (c) $c - bx$ (d) $a - b + c$

5. The unlike pair of term in the following is

   (a) $2xz^2, -5xz^2$ (b) $6x^3y, 7x^3y$ (c) 12,24 (d) –6xz,–6xy

6. Which of the following is not a monomial?

   (a) 9xy (b) $6x^2yz$ (c) 18 (d) z + 2

7. $9x^2 + 4x + 3$ is a

   (a) monomial (b) binomial (c) trinomial (d) none of these

8. A rope is $(11x + 9)m$ long. A piece of rope $(7x - 13)m$ long is cut from it. How much rope is left?

   (a) $(4x + 22)m$ (b) $(4x + 13)m$ (c) $(4x + 9)m$ (d) $(4x - 22)m$

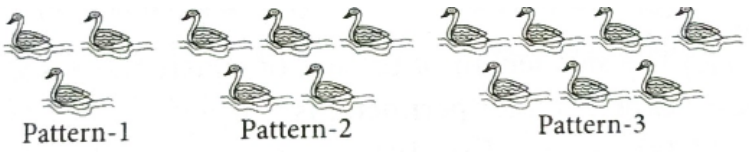
9. The side of a square is $(13x + 7y)$. Find its perimeter.

   (a) $52x + 28y$ (b) $52x + 7y$ (c) $52x + 91y$ (d) $13x + 28y$

10. Length of a rectangular field is twice its breadth. If the breadth of the field is bm, then find the perimeter of the field.

    (a) 64b m (b) 8b m (c) 6b m (d) 5b m

11. Observe the pattern given below.



How many ducks will be there in Pattern – 37?

(a) 75 (b) 37 (c) 73 (d) 57

12. Anmol spends ₹ x daily and saves ₹ y per day. What is his monthly income in month of 30 days?

(a) ₹ $4(x+y)$ (b) ₹ $30(x+y)$ (c) ₹ $14(x+y)$ (d) ₹ $21(x+y)$

13. An algebraic expression containing three terms is called a

(a) monomial (b) binomial (c) trinomial (d) All of these

14. Factors of $-5x^2y^2z$ are

(a) $-5\times x\times y\times z$ (b) $-5\times x^2\times y\times z$ (c) $-5\times x\times x\times y\times y\times z$ (d) $-5\times x\times y\times z^2$

15. Identify the binomial out of the following:

(a) $3xy^2+5y-x^2y$ (b) $x^2y-5y-x^2y$

(c) $xy+yz+zx$ (d) $3xy^2+5y-xy^2$

16. The side length of the top of square table is x. The expression for perimeter is

(a) $4+x$ (b) 2 x (c) 4 x (d) 8 x

17. The number of scarfs of length half metre that can be made from y metres of cloth is

(a) 2 y (b) $\frac{y}{2}$ (c) $y+2$ (d) $y+\frac{1}{2}$

18. The value of $3x^2-5x+3$ when $x=1$ is

(a) 1 (b) 0 (c) –1 (d) 11

19. The length of a side of square is given as $2x+3$. Which expression represents the perimeter of the square?

(a) $2x+16$ (b) $6x+9$ (c) 8 x+3 (d) 8x +12

20. Assertion : $3x^3y^2z$ and $5xy^2z^3$ are examples of like terms.

Reason: Like terms have same algebraic factors.

(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.

(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

(c) If Assertion is true but Reason is false.

(d) If Assertion is false but reason is true.

21. Assertion: The expression $13p^2+2p-1$ is a trinomial.

Reason: An algebraic expression which contains two unlike terms is called a binomial.

(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.

(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

(c) If Assertion is true but Reason is false.

(d) If Assertion is false but reason is true.

22. Assertion :The expression, $7a^2b^2 + 3ab - 2b^2a^2 -$ 2 b q is equal to $5a^2b^2 + ab$.

Reason : In like terms, the order in which the variables are multiplied does not matter.

(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.

(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

(c) If Assertion is true but Reason is false.

(d) If Assertion is false but reason is true.

23. Assertion : We get different values of expression

$64 - 3x^2$ at x = 2, 3, 4.

Reason: The value of an expression changes with a change in the value of the variable.

(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.

(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

(c) If Assertion is true but Reason is false.

(d) If Assertion is false but reason is true.