STD 9 Maths | Total Marks : 25

Linear Equations in Two Variables DPP-4

*** Choose the right answer from the given options. [1 Marks Each]** [25]

1. The equation 2x + 5y = 7 has a unique solution, if x, y are:
   (A) Rational numbers (B) Real numbers (C) Natural numbers (D) Positive real numbers

2. If (-2, 5) is a solution of 2x + my = 11, then the value of 'm' is:
   (A) -2 (B) 2 (C) 3 (D) -3

3. If (3, 2) is the solution 3x - ky = 5, then k equals of the equation.
   (A) 2 (B) 4 (C) 3 (D) $\frac{1}{2}$

4. The graph of linear equation x + 2y = 2, cuts the y - axis at:
   (A) (2, 0) (B) (0, 2) (C) (0, 1) (D) (1, 1)

5. If x = 3 and y = -2 satisfies 2x - 3y = k, then the value of k is:
   (A) -2 (B) 10 (C) 12 (D) 3

6. Write the correct answer in the following:
   x = 5 and y = 2 is a solution of the linear equation,
   (A) x + 2y = 7 (B) 5x + 2y = 7 (C) x + y = 7 (D) 5x + y = 7

7. The value of k if x = 3 and y = -2 is a solution of the equation 2x - 13y = k is:
   (A) 32 (B) 30 (C) 31 (D) 23

8. The graph of the linear equation 4x + 2y = 12, cuts the x-axis at the point:
   (A) (3, 0) (B) (0, -2) (C) (-2, 0) (D) (0, 3)

9. The graph of x = - 4 is a straight line.
   (A) Parallel to x-axis. (B) Parallel to y-axis. (C) Passing through origin. (D) Intersecting the axes.

10. The graph of the linear equation 2x + 3y = 6 cuts the y - axis at the point.
    (A) (2, 0) (B) (0, 2) (C) (3, 0) (D) (0, 3)

11. If x = 3 and y = -2 satisfies 5x - y = k, then the value of k is:
    (A) 3 (B) -2 (C) 17 (D) 12

12. Each of the points (-2, 2), (0, 0), (2, 2) satisfies the linear equation:
    (A) x - y = 0 (B) x + y = 0 (C) -x + 2y = 0 (D) x - 2y = 0

13. Write the correct answer in the following:
    If a linear equation has solutions (-2, 2), (0, 0) and (2, -2), then it is of the form,
    (A) y – x = 0 (B) x + y = 0 (C) -2x + y = 0 (D) -x + 2y = 0

14. The condition that the equation ax + by + c = 0 represents a linear equation in two variables is:
    (A) a ≠ 0, b = 0 (B) b ≠ 0, a = 0 (C) a = 0, b = 0 (D) a ≠ 0, b ≠ 0

15. If the line represented by the equation 3x + ky = 9 passes through the points (2, 3), then the value of k is:
    (A) 2 (B) 4 (C) 3 (D) 1

16. Find the value of k, if x = 1, y = 2 is a solution of the equation 2x + 3y = k.
(A) 5 (B) 6 (C) 7 (D) 8

17. If the point (3, 4) lies on the graph of 3y = ax + 7 then the value of a is:
(A) $\frac{2}{7}$ (B) $\frac{2}{5}$ (C) $\frac{5}{3}$ (D) $\frac{3}{5}$

18. The linear equation 3x - y = x - 1 has:
(A) Two solutions. (B) No solution. (C) Infinitely many solutions. (D) A unique solution.

19. The cost of 2kg of apples and 1kg of grapes on a day was found to be ₹ 160. A linear equation in two variables to represent the above data is:
(A) x + y = 160 (B) 2x - y = 160 (C) x - 2y = 160 (D) 2x + y = 160

20. A linear equation in two variables is of the form ax + by + c = 0, where:
(A) a = 0, c = 0 (B) a ≠ 0, b = 0 (C) a = 0, b ≠ 0 (D) a ≠ 0, b ≠ 0

21. The force applied on a body is directly proportional to the acceleration produced on it. The equation to represent the above statement is:
(A) y = kx (B) y + x = 0 (C) None of these (D) y = x

22. The taxi fare in a city is as follows: For the first kilometer, the fare is ₹ 8 and for the subsequent distance it is ₹ 5 per kilometer. Taking the distance covered as x km and total fare as ₹ y, write a linear equation for this information.
(A) x = 5y - 3 (B) y = 5x + 3 (C) x = 5y + 3 (D) y = 5x - 3

23. The graph of a linear equation x - 5y + 3 = 0 cuts the x-axis at the point.
(A) (-5, 0) (B) (5, 0) (C) (-3, 0) (D) (3, 0)

24. Point (3, 4) lies on the graph of the equation 3y = kx + 7. The value of k is:
(A) $\frac{4}{3}$ (B) $\frac{5}{3}$ (C) 3 (D) $\frac{6}{3}$

25. The area of the triangle formed by the line 3x + 4y = 12 and the co-ordinate axis is:
(A) 6 sq. units. (B) 12 sq. units. (C) 4 sq. units. (D) 3 sq. units.

----- -----