

## CHAPTER-3 | Pair of Linear Equations in Two Variables

### QUIZ PART-05

1. Which method is used to solve the pair of linear equations in the example given?
- Substitution method
  - Elimination method
  - Graphical method
  - Matrix method (A)

**Explanation :** The problem specifies using the substitution method to solve the linear equations.

2. What is the first equation in the pair for the substitution method?
- $x + y = 14$
  - $3x - y = 3$
  - $s - t = 3$
  - $2x + 3y = 11$  (A)

**Explanation :** The first equation in the example is  $x + y = 14$ .

3. Which of the following is the second equation in the pair?
- $x - y = 4$
  - $9x - y = 9$
  - $2x - 4y = -24$
  - $0.4x + 0.5y = 2.3$  (A)

**Explanation :** The second equation is  $x - y = 4$ .

4. What is the second equation in part (ii) of the exercise?
- $2x - 3y = 6$
  - $s + t = 6$
  - $s - t = 3$
  - $2x + 3y = 11$  (B)

**Explanation :** The second equation in part (ii) is  $s + t = 6$ .

5. What is the value of 'm' required in the equation  $y = mx + 3$ ?
- $m = 2$
  - $m = -3$
  - $m = 1$
  - $m = 3$  (A)

**Explanation :** The value of m is found by solving the pair of equations, which gives  $m = 2$ .

6. What type of solutions does the equation  $3x - y = 3$  and  $9x - 3y = 9$  have?
- No solution
  - Infinitely many solutions
  - Unique solution
  - Inconsistent solutions (B)

**Explanation :** The system of equations has infinitely many solutions since both equations represent the same line.

7. What is the solution to the pair of equations  $0.2x + 0.3y = 1.3$  and  $0.4x + 0.5y = 2.3$ ?
- $x = 2, y = 3$
  - $x = 1, y = 2$
  - $x = 3, y = 2$
  - No solution (A)

**Explanation :** By solving the equations using substitution or elimination, we get  $x = 2$  and  $y = 3$ .

8. What is the coefficient of x in the equation  $2x + 3y = 11$ ?
- 2
  - 3
  - 1
  - 0 (A)

**Explanation :** The coefficient of x in the equation  $2x + 3y = 11$  is 2.

9. What type of system of equations is formed in part (v) with equations  $2x + 3y = 0$  and  $3x - 8y = 0$ ?
- Consistent system
  - Inconsistent system
  - Dependent system
  - Independent system (A)

**Explanation :** The system is consistent because it has a solution.

10. What method is best suited for solving the given pair of linear equations in the exercise?
- Graphical method
  - Substitution method
  - Elimination method
  - All of the above (B)

**Explanation :** The substitution method is suggested for solving the given pairs of equations in this exercise.