## Pair of Linear Equations in Two Variables

1. A pair of linear equation in two variables which has a common point i.e., which has only one solution is called a

- (a) Consistent pair
- (b) Inconsistent pair
- (c) Dependent pair
- (d) None of these
- Ans. a) Consistent pair

2. If a pair of linear equation  $a_1x + b_1y + c_1 = 0$  and  $a_2x + b_2y + c_2 = 0$  represents coincident lines, then

(a)  $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$ (b)  $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$ (c)  $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$ (d) None of these  $a_1 = \frac{b_1}{a_2} = \frac{c_1}{a_2} = \frac{c_2}{a_2}$ 

**Ans. (c)**  $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$ 

3. The value of 'k' for which the system of equation 2x + 3y = 5 and 4x + ky = 10 has infinite number of solutions is

(a) k = 1
(b) k = 3
(c) k = 6
(d) k = 0
Ans. (c) k = 6

4. If the system of equation 2x + 3y = 7 and 29x + (a + b) y = 28 has infinitely many solutions, then
(a) a = 2b
(b) b = 2a
(c) a + 2b = 0
(d) 2a + b = 0
Ans. (b) b = 2a

5. If am ≠ bl, then the system of equation ax + by = c and lx + my = n
(a) has a unique solution
(b) has no solution
(c) has infinitely many solution
(d) may or may not have a solution
Ans. (a) has a unique solution
6. The graphical representation of the linear equation y - 5 = 0 is
(a) a line
(b) a point
(c) a curve

(d) None of these

Ans. (a) a line

7. A system of simultaneous linear equations is said to be inconsistent, if it has

(a) One solution

(b) Two solutions

(c) Three solutions

(d) No solution

Ans. (d) No solution

- 8. The system of equation 2x + 3y 7 = 0 and 6x + 5y 11 = 0 has
- (a) unique solution
- (b) No solution
- (c) Infinitely many solutions

(d) None of these

Ans. (a) unique solution

9. The value of 'k' for which the system of equation x + 2y - 3 = 0 and 5x + ky + 7 = 0has no solution is (a) k = 10(b) k = 6(c) k = 3(d) k = 1Ans. (a) k = 1010. The equation  $ax^n + by^n + c = 0$  represents a straight line if (a)  $n \ge 1$ (b)  $n \le 1$ (c) n=1(d) None of these

Ans. (c) n=1

11. The value of 'k' for which the system of equation kx - y = 2 and 6x - 2y = 3 has a unique solution is

(a) k = 3(b) k(c) k = 0(d) k = 4Ans. (b) k = 3

12. The value of 'k' for which the system of equations x + 2y = 5 and 3x + ky + 15 = 0has no solution, if (a) k = 6(b) k = -6 $\frac{3}{2}$ (c)  $-k = \frac{3}{2}$ (d) None of these Ans. (a) k = 613. In the equation  $a_1x + b_1y + c_1 = 0$  and  $a_2x + b_2y + c_2 = 0$ , if  $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$  then the equation will represents (a) coincident lines (b) parallel lines (c) intersecting lines (d) None of these

Ans. (c) intersecting lines