DEPARTMENT OF PUBLIC INSTRUCTION -CHIKKAMAGALURU

MULTIPLE CHOICE QUESTIONS FOR PRACTICE   CLASS: 10

SUBJECT: MATHEMATICS   UNIT: PAIR OF LINEAR EQUATIONS IN TWO VARIABLES

STUDENT NAME:

SCHOOL NAME:

Four alternative /choices are given for each incomplete statement or a question. Click the correct answer.

1) If linear equation in two variables $x + 2y = 3$ and $2x + 4y = k$ coincides then the value of 'k' is,
   A) 3   B) 6   C) -3   D) -6

2) $2x + 3y - 9 = 0$ and $4x + 6y – 18 = 0$ This pair of linear equations have ----- solutions.
   A) One   B) Two   C) No solution   D) Infinite

3) In the equation $x + y = 7$, if $x = 3$ then the value of 'y' is,
   A) -4   B) 4   C) 10   D) -10

4) If $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ are the pair of coinciding lines then the ratios of their coefficients are

   A) $\frac{a1}{a2} \neq \frac{b1}{b2}$ B) $\frac{a1}{a2} = \frac{b1}{b2} \neq \frac{c1}{c2}$ C) $\frac{a1}{a2} = \frac{b1}{b2} = \frac{c1}{c2}$ D) $\frac{a1}{a2} = \frac{b1}{b2}$

5) If the pair of equations $3x + 2ky = 2$ and $2x + 5y + 1 = 0$ are parallel then the value of 'k' is
   A) 15/4   B) 3/2   C) 5   D) 4/15

6) The pair of equations $2x – 5y + 4 = 0$ and $2x + y – 8 = 0$ has
   A) Exactly two solutions   B) Infinitely many solutions
   C) A unique solution   D) No solution

7) The values of 'x' and 'y' when a point lies on the linear equation $2x – 3y = 12$
   A) $x = 0$, $y = -3$ B) $x = 2$, $y = 3$ C) $x = 3$, $y = -2$ D) $x = -2$, $y = 3$

8) Identify the wrong statement with respect to a pair of linear equations
   A) If lines are parallel there is no solution
   B) If the lines are perpendicular to each other, there is no solution
   C) Many solutions if the lines coincide each other
   D) A unique solution if they intersect

9) In the equation $2x – y = 5$ if $y = 1$ then the value of 'x' is,
   A) 3   B) 6   C) 1   D) 4

10) The cost of 5 pens and 7 pencils is Rs 50. Which of the following equation describes the above statement,
   A) $5x / 7x = 50$ B) $5x + 7y = 50$ C) $5x * 7y = 50$ D) $5x – 7y = 50$

11) The solution of the equation $x – y = 2$ and $x + y = 4$ is
   A) 4, 2   B) 1, 3   C) 3, 1   D) 1, 2

12) The line represented by $6x – 8y + 8 = 0$ and $6x – 6y + 16 = 0$
   A) Intersects   B) Parallel   C) Coincides   D) None of the above

13) If the equations $4x + Py +8 = 0$ and $2x + 2y + 2 = 0$ have unique solution then the value of 'P' is,
   A) Except 2   B Except 4   C) Except -2   D) Except -4

14) $x + y = 20$ and $x – y = 4$ solve for x and y, and substitute the values of x and y in $y = mx + 3$ then the value of 'm' is,
   A) 5 / 12   B) 12/ 5   C) 8/12   D) – 5/ 12

15) The value of 'y' in the equations $2x + 3y = 12$ and $x + y = 5$ is,

   A) 3   B) 2   C) 4   D) 12

16) The value of ' x' in the equations $2x + y = 9$ and $3x + y = 11$ is,

   A) 3   B) 1   C) 2   D) 11

17) The line representing the equations $5x – 4y + 8 = 0$ and $7x + 6y – 9 = 0$ is

   A) Intersecting lines B) perpendicular lines C) parallel lines D) coinciding lines

18) The pair of equations $2x + y - 6 = 0$ and $4x – 2y - 4 = 0$ are examples for

   A) Consistent with unique solution B) consistent with infinitely many solutions

   C) In consistent or not solvable   D) None of the above

19) In the equation $x – y = 10$, if $x = 13$ then the value of 'y' is,

   A) -3   B) 23   C) 3   D) -23

20) If the pair of linear equation in two variables has infinitely many solutions then the lines representing these equations,

   A) Coincides   B) parallel   C) intersects   D) inconsistent

21) The lines which represent $x – 4y + 8 = 0$ and $2x -8y – 9 = 0$ are,

   A) Intersecting lines B) perpendicular lines C) parallel lines D) coinciding lines

22) The pair of linear equations with two variables has no solutions then the lines representing these equations are,

   A) Coincides   B) parallel   C) intersects   D) All of the above

23) Identify the correct statement with respect to a pair of linear equations

   $x + y = 5$ and $x – y = 8$

   A) No solution B) Unique solution C) infinitely many solutions D) None of the above

24) In the equation $2x + y = 11$ and $x + y = 8$ the values of 'x' and 'y' are respectively,

   A) -3, 5   B) 2,5   C) 3, -5   D) 3,5

25) The graph of the equation $6x – 2y + 9 = 0$ and $3x – y + 12 = 0$ are two lines which are,

   A) Coincident B) parallel C) Intersecting at one point D) perpendicular to each other

26) The value of 'k' for which the system of equations $kx – y = 2$ and $6x – 2y = 3$ has unique solution is,

   A) = 3   B) ≠ 3   C) ≠ 0   D) = 0

27) The value of 'k' for which the system of equations $2x + 3y = 5$ and $4x + ky = 10$ has infinite number of solutions, is

   A) 1   B) 3   C) 6   D) 0

28) The value of 'k' for which the system of equations $x + 2y – 3 = 0$ and $5x + ky + 7 = 0$ has no solution, is

   A) 10   B) 6   C) 3   D) 1

29) The sum of two numbers is 9 and the second number is twice the first number, the equation representing the above statement is

   A) $x + y = 9$, $2x = y$ B) $x – y = 9$, $2x = y$ C) $x + y = 9$, $x + 2y = 0$ D) $x + y = 9$, $x + y = 2$

30) $x = 5$ and $y = 4$ then the lines representing the pair of equations are,

   A) parallel   B) Intersects at (4, 5)   C) coincides   D) Intersects at (5,4)