

Choose the correct answer.

- An equation in which each term has degree one is called  
(a) Linear equation (b) Quadratic equation (c) Cubic equation (d) None of these
- A statement that contains at least one of the symbols  $<$ ,  $>$ ,  $\leq$  and  $\geq$  is called  
(a) An equation (b) An inequality (c) Both a and b (d) None of these
- The symbol used for the less than or equal to is  
(a)  $<$  (b)  $>$  (c)  $\geq$  (d)  $\leq$
- The number of the variables in  $ax + by \leq c$  is  
(a) 1 (b) 2 (c) 3 (d) 4
- The variables used in system of linear inequalities are also known as  
(a) Constants (b) Constraints (c) Solution (d) None of these
- If  $a < b$ ,  $\forall a, b \in R$  then  
(a)  $-a < -b$  (b)  $-a > -b$  (c)  $a \leq b$  (d) None of these
- Those values of variables which satisfy an inequality are called  
(a) Solution (b) Constraints (c) Constants (d) None of these
- A diagram showing a relationship between two variables is called  
(a) Solution (b) Graph (c) Both a and b (d) None of these
- A graph of the linear equation is always  
(a) Straight line (b) Parabola (c) Ellipse (d) Circle
- The graph of a linear inequality with two variables represents  
(a) Ellipse (b) Circle (c) Region (d) None of these
- A solution of  $x + 2y < 6$  is  
(a) (1,2) (b) (5,1) (c) (0,8) (d) None of these
- The regions of inequalities are also called  
(a) Half planes (b) Planes (c) Lines (d) None of these
- The number of ordered pairs that satisfy the inequality is  
(a) Finite (b) Infinite (c) Unique (d) None of these
- For  $ax + by \leq c$ , The equation  $ax + by = c$  is called  
(a) Associated equation (b) Corresponding equation (c) Both a and b (d) None of these
- The graph of an associated equation represents  
(a) Solution of inequality (b) Boundary of half plane (c) Circle (d) None of these
- A point which is used to determine position of half plane is called  
(a) Corner point (b) Test point (c) Boundary point (d) None of these
- The common region of all the graphs is called  
(a) Feasible region (b) Solution region (c) Both a and b (d) None of these
- Feasible region is a region restricted to the  
(a) 1<sup>st</sup> quadrant (b) 2<sup>nd</sup> quadrant (c) 3<sup>rd</sup> quadrant (d) None of these
- Each point of the feasible region is called  
(a) Corner point (b) Vertex (c) Feasible solution (d) None of these
- A point of solution region where two of its boundary lines intersect is called  
(a) Corner point (b) Vertex (c) Both a and b (d) None of these
- The corner point for  $x - 2y \leq 6$  and  $2x + y \geq 2$  is  
(a) (1,2) (b) (2,2) (c) (2,-2) (d) (2,1)
- The corner point for  $x - 2y \leq 6$  and  $x + 2y \leq 10$  is  
(a) (1,3) (b) (2,3) (c) (-2,6) (d) None of these

23. A vertical line divides the plane into  
 (a) Upper and lower half planes (b) Left and right half planes  
 (c) Both a and b (d) None of these
24. The solution set of the inequality  $2x + y \leq 6$  lies on the \_\_\_\_\_ of the boundary line  
 (a) Left (b) Right (c) Upper side (d) Lower side
25. The solution set of the inequality  $3x - 4 \geq 0$  lies on the \_\_\_\_\_ of the boundary line  
 (a) Left (b) Right (c) Upper side (d) Lower side
26. The process used to maximize or minimize a quantity is called  
 (a) Optimization (b) Solution (c) Both a & b (d) None of these
27. A function which is used to maximize or minimize is called  
 (a) Objective solution (b) Objective function (c) feasible region (d) None of these
28. The variables used in the system of linear inequalities are  
 (a) Negative (b) Non-negative (c) Feasible region (d) None of these
29. Non-negative constraints are also known as  
 (a) Dependent variables (b) Discrete variable (c) Decision variables (d) None of these
30. x-intercept for  $x + 2y = 6$  is  
 (a) 1 (b) 2 (c) 6 (d) 12

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