

## ECAT Mathematics Chapter 21 Linear Inequalities and Linear Programming Online Test

Sr	Questions	Answers Choice
1	The point (1,3) is one solution of	A. $3x + 5y > 29$ B. $3x + 5y \leq 7$ C. $x + 2y \leq 4$ D. $x + 4y > 3$
2	Optimal solution is found by evaluation the objective function at	A. All point of feasible region B. Corner point C. Origin D. None
3	A function which is to be maximized or minimized is called an	A. Explicit function B. Implicit function C. Objective function D. None
4	Each point of the feasible region is called	A. Solution B. feasible solution C. Both a & b D. None
5	A point (x,y) which satisfy a linear inequality in two variables form its	A. Solution B. Domain C. Range D. None
6	A point where two of its boundary lines intersect is called	A. Corner point B. Feasible point C. Vertex D. Feasible solution
7	Corner point of the system $x - y \leq 2, x + y \leq 4, 2x - y \leq 6, x \geq 0, y \geq 0$	A. (1,4) B. (4,2) C. (3,1) D. (4,1)
8	Which of the following is not a solution of system of inequalities $2x - 3y \leq 6, 2x + y \geq 2, x + 2y \leq 8, x \geq 0, y \geq 0$	A. (1,0) B. (0,4) C. (3,0) D. (8,0)
9	Sum of two quantities is at least 20 is denoted by	A. $x + y = 20$ B. $x + y \geq 20$ C. $x + y \neq 20$ D. $x + y \leq 20$
10	Maximum value of $z = 15x + 20y$ subject to $3x + 4y \leq 12, x, y \geq 0$ is given by	A. 46 B. 60 C. 50 D. 70
11	The maximum value of $Z = 3x + 4y$ subjected to the constraints $x + y \leq 40, x + 2y \leq 60, x \geq 0$ and $y \geq 0$ is	A. 120 B. 100 C. 140 D. 160
12	The feasible region which can be enclosed within a circle is called	A. Bounded region B. Convex region C. Unbounded region D. None
13	The graph of $y < 2$ is the	A. Left half plane B. upper half plane C. Right half plane D. Lower half plane