

ECAT Mathematics Chapter 21 Linear Inequalities and Linear Programming

Sr	Questions	Answers Choice
1	The corner point of the boundary lines, $x-2y$ $2x + y = 2$ is:	A. (2,6) B. (6,2) C. (-2,2) D. (2,-2)
2	If $x < y$, $2x = A$, and $2y = B$, then	A. $A = B$ B. $A \geq B$ C. $A \leq x$ D. $B \leq y$
3	$x = \underline{\hspace{2cm}}$ is in the solution of $2x + 3 < 0$	A. 0 B. 2 C. -1 D. -2
4	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
5	Which is in the solution set of $4x - 3y < 2$	A. (3, 0) B. (4, 1) C. (1, 3) D. None
6	The points (x, y) which satisfy a linear inequality in two variables x and y from its	A. domain B. range C. solution D. none of these
7	A point of a solution regions where two of its boundary lines intersect, is called:	A. Vertex of the solution B. Feasible point C. Point of inequality D. Null point of the solution region
8	$3x + 4 = 0$ is	A. not inequality B. equation C. identity D. inequality
9	(0,1) is in the solution of the inequality	A. $3x + 2y \geq 8$ B. $2x - 3y \leq 4$ C. $2x + 3y \geq 5$ D. $x - 2y \leq -5$
10	$3x + 4 > 0$ is	A. equation B. identity C. inequality D. none of these
11	The graph of $y < 2$ is the	A. Left half plane B. upper half plane C. Right half plane D. Lower half plane
12	Optimize means _____ a quantity under certain constraints	A. Minimize B. Maximize C. Maximize or minimize D. None of these
13	The solution set of the inequality $ax + by < c$ is	A. straight line B. half plane C. parabola D. none of these
14	x is a member of the set [-1, 0, 3, 5] y is a member of the set {-2, 1, 2, 4} which is possible?	A. $x - y = -6$ B. $x - y \leq -6$ C. $x - y \geq -6$ D. None
15	A point where two of its boundary lines intersect is called	A. Corner point B. Feasible point C. Vertex D. Feasible solution

16	$x = 1$ is in the solution of the inequality	<p>A. $x + 1 > 0$</p> <p>B. $x - 2 > 0$</p> <p>C. $3x - 1 < 0$</p> <p>D. $x + 2 < 0$</p>
17	$2x + 3y > 4$ is a linear inequality in	<p>A. one variable</p> <p>B. two variables</p> <p>C. three variables</p> <p>D. none of these</p>
18	$ab > 0$ and $a > 0$ then	<p>A. $a > b$</p> <p>B. $a < b$</p> <p>C. $a = b$</p> <p>D. None</p>
19	Which of the following is not a solution of system of inequalities $2x - 3y \leq 6, 2x + y \geq 2, x + 2y \leq 8, x \geq 0, y \geq 0$	<p>A. (1,0)</p> <p>B. (0,4)</p> <p>C. (3,0)</p> <p>D. (8,0)</p>
20	An expression involving any of the symbols $<, >, \leq$ or \geq is called	<p>A. equation</p> <p>B. inequality</p> <p>C. linear equation</p> <p>D. identity</p>