

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

Sr	Questions	Answers Choice
1	The corner point of the boundary lines, x- 2x x+2y=10 is:	A. (8,1) B. (1,8) C. (6,10) D. (3,5)
2	ab > 0 and a > 0 then	A. a > b B. a < b C. a = b D. None
3	Each point of the feasible region is called	A. Solution B. feasible solution C. Both a & D. None
4	The graph of linear equation 2x + 3y = 10	A. Parabola B. Circle C. Hyperbola D. Straight line
5	The point is in the solution of the inequality 2x - 3y < 4	A. (0, -2) B. (1, -3) C. (2, 2) D. (3, 0)
6	The real numbers which satisfy an inequality form its	A. solution B. coefficient C. domain D. range
7	(1, 1) is the in the solution of the inequality	A. 3x + 4y > 3 B. 2x + 3y < 2 C. 4x = 3y > 5 D. 2c - 3y > 2
8	(2, 1) is in the solution of the inequality	A. 2x + y <u>&gt;</u> 7 B. x - y > 2 C. 3x + 5y < 6 D. 2x + y < 6
9	Which is not a half plane	A. ax + by < c B. ax + by > c C. Both A and B D. None
10	$3x + 4 \ge 0$ is	A. equation B. inequality C. identity D. none of these
11	If -1 < $x$ < 0, which of the following statements must be true?	A. x < x <sup>2</sup> < x <sup>3</sup> B. x < x <sup>3</sup> < x <sup>2</sup> C. x <sup>2</sup> < x <sup>3</sup> < x <sup>3</sup> < x <sup>3</sup> < x <sup>3</sup> < x D. x <sup>2</sup> < x
12	An expression involving any of the symbols <,>,≤ or ≥ is called	A. equation B. inequality C. linear equation D. identity
13	Maximum value of z =15x +20y subject to 3x+ 4y≤ 12,x,y≥ 0 is given by	A. 46 B. 60 C. 50 D. 70
14	The graph of y < 2 is the	A. Left half plane B. upper half plane C. Right half plane D. Lower half plane

15	There may be feasible solution in the feasible region	A. Infinite B. Finite C. Defined D. None of above
16	Which of the following is not a solution of system of inequalities $2x$ - $3y \le 6,2x + y \ge 2,x + 2y \le x \ge 0,y \ge 0$	A. (1,0) 8, B. (0,4) C. (3,0) D. (8,0)
17	3x + 4 > 0 is	A. equation B. identity C. inequality D. none of these
18	2x + 3y > 4 is a linear inequality in	A. one variable B. two variables C. three variables D. none of these
19	r + 3 >5 then which is true	A. r + 2 > 4 B. r + 2 < 4 C. r + 2 = 4 D. None
20	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