

## ECAT (Pre-Eng) Mathematics Chapter 21 Linear Inequalities & Linear Programming

Sr	Questions	Answers Choice
1	$3x + 4 = 0$ is	A. not inequality B. equation C. identity D. inequality
2	$3x + 4 < 0$ is	A. inequality B. equation C. identity D. not inequality
3	Inequalities have _____ symbol	A. 2 B. 3 C. 4 D. 1
4	Question Image 	A. $p \leq r$ B. $p > r$ C. $p + r \leq 0$ D. $p - r \leq 0$
5	The corner point of the boundary lines, $x - 2x + 2y = 10$ is:	A. (8,1) B. (1,8) C. (6,10) D. (3,5)
6	(1, 1) is the in the solution of the inequality	A. $3x + 4y \geq 3$ B. $2x + 3y \leq 2$ C. $4x = 3y \geq 5$ D. $2x - 3y \geq 2$
7	If $-1 < x < 0$ , which of the following statements must be true?	A. $x \leq x^2$ B. $x \leq x^3$ C. $x^2 \leq x$ D. $x^2 \leq x^3$
8	If $ab > 0$ and $a < 0$ , which of the following is negative?	A. b B. -b C. -a D. $(a - b)^2$
9	A _____ divides the plane into left and right half planes.	A. Vertical line B. Horizontal line C. Non vertical line D. Inequality
10	$s > t$ then	A. $(s - t)^2 > (t - s)^2$ B. $(s - t)^2 < (t - s)^2$ C. $(s - t)^2 = (t - s)^2$ D. None
11	Order (or sense) of an inequality is changed by multiplying or dividing its each side by a:	A. Zero B. one C. negative constant D. Non negative constant
12	A function which is to be maximized or minimized is called an	A. Explicit function B. Implicit function C. Objective function D. None
13	Corner point of the system $x - y \leq 2, x + y \leq 4, x \geq 0, y \geq 0$	A. (1,4) B. (4,2) C. (3,1) D. (4,1)
14	$x = -1$ is in the solution of the inequality	A. $x + 5 \leq 0$ B. $2x + 3 \leq 0$ C. $x \geq 0$ D. $x + 5 \geq 0$

$$D. 2x + 3 > 0$$

15	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)
16	The point _____ is in the solution of the inequality $4x - 3y < 2$	A. (0,1) B. (2,1) C. (2,2) D. (3,3)
17	(0,1) is in the solution of the inequality	A. $3x + 2y > 8$ B. $2x - 3y < 4$ C. $2x + 3y > 5$ D. $x - 2y < -5$
18	(1,0) is in the solution of the inequality	A. $3x + 2y > 8$ B. $2x - 3y < 4$ C. $2x + 3y > 3$ D. $x - 2y < -5$
19	$r + 3 > 5$ then which is true	A. $r + 2 > 4$ B. $r + 2 < 4$ C. $r + 2 = 4$ D. None
20	$2x + 3y > 4$ is a linear inequality in	A. one variable B. two variables C. three variables D. none of these