

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

Sr	Questions	Answers Choice
1	If $x < y$ , $2x = A$ , and $2y = B$ , then	A. $A = B$ B. $A < B$ C. $A < x$ D. $B < y$
2	$3x + 4 \leq 0$ is	A. not inequality B. equation C. identity D. inequality
3	$3x + 4 \geq 0$ is	A. equation B. inequality C. identity D. none of these
4	The graph of $y > 0$ is the upper - half of:	A. $y$ -axis B. $x$ -axis C. 1st and 4th quadrant D. 2nd and 3rd quadrant
5	$x = \underline{\hspace{2cm}}$ is in the solution of $2x + 3 \geq 0$	A. 1 B. -2 C. -3 D. -4
6	For which of the following ordered pairs $(s, t)$ is $s + t > 2$ and $s - t < -3$ ?	A. $(3, 2)$ B. $(2, 3)$ C. $(1, 8)$ D. $(0, 3)$
7	The point $\underline{\hspace{2cm}}$ is in the solution of the inequality $2x + 3y < 5$	A. $(1, 1)$ B. $(2, 2)$ C. $(0, 1)$ D. $(0, 2)$
8	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
9	$ab > 0$ and $a > 0$ then	A. $a > b$ B. $a < b$ C. $a = b$ D. None
10	Inequalities have $\underline{\hspace{2cm}}$ symbol	A. 2 B. 3 C. 4 D. 1
11	The real numbers which satisfy an inequality form its	A. solution B. coefficient C. domain D. range
12	$s > t$ then	A. $(s - t)^2 > (t - s)^2$ B. $(s - t)^2 < (t - s)^2$ C. $(s - t)^2 \geq (t - s)^2$ D. None
13	The feasible region which can be enclosed within a circle is called	A. Bounded region B. Convex region C. Unbounded region D. None
14	Optimal solution is found by evaluation the objective function at	A. All point of feasible region B. Corner point C. Origin D. None
		A. straight line B. curve

15	The solution set of the inequality $ax + by < c$ is	B. half plane C. parabola D. none of these
16	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
17	For graphing a linear inequality, solid line is drawn if the inequality involves the symbols:	A. $>$ or $<$ B. $>\!\!>$ or $<\!\!<$ C. $=$ or $\neq$ D. $=$ or $>$
18	A function which is to be maximized or minimized is called an	A. Explicit function B. Implicit function C. Objective function D. None
19	The point _____ is in the solution of the inequality $4x - 3y < 2$	A. (0,1) B. (2,1) C. (2,2) D. (3,3)
20	The point _____ is in the solution of the inequality $2x - 3y < 4$	A. (0, -2) B. (1, -3) C. (2, 2) D. (3, 0)