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

Sr	Questions	Answers Choice
1	A _____ divides the plane into left and right half planes.	A. Vertical line B. Horizontal line C. Non vertical line D. Inequality
2	3x + 4 = 0 is	A. not inequality B. equation C. identity D. inequality
3	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
4	There may be _____ feasible solution in the feasible region	A. Infinite B. Finite C. Defined D. None of above
5	If x < y, 2x = A, and 2y = B, then	A. A = B B. A < B C. A < x D. B < y
6	The liner equation ax + by = c is called _____ of the inequality ax +by > c.	A. Associated equation B. Non-associated equation C. disjoint equation D. Feasible equation
7	The real numbers which satisfy an inequality form its	A. solution B. coefficient C. domain D. range
8	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
9	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
10	If 4 - x >5, then	A. x > 1 B. x > -1 C. x < 1 D. x < -1
11	The set of ordered pairs (x,y) such that ax+ by < c, and (x,y) such that ax + by>0, are called	A. Half planes B. Boundary C. Linear Inequalities D. Feasible regions
12	x = _____ is in the solution of 2x - 5 > 0	A. 0 B. 2 C. -2 D. 3
13	(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
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. 0

15	x = _____ is in the solution of 2x + 3 < 0	B. 2 C. -1 D. -2
16	Which of the following is not a solution of system of inequalities 2x- 3y ≤6,2x +y≥ 2,x +2y≤ 8, x≥ 0,y ≥ 0	A. (1,0) B. (0,4) C. (3,0) D. (8,0)
17	The total cost of 2 apples and 3 oranges is $1.70, which of the following is true	A. The cost of one apple B. The cost of one orange C. Both have equal cost per item D. Cost of each single item can not be determined
18	If -1 < x < 0, which of the following statements must be true?	A. x < x²< x³ B. x < x³< x² C. x²< x³< x D. x²< x < x³
19	Which is not a half plane	A. ax + by < c B. ax + by > c C. Both A and B D. None
20	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)