ECAT Mathematics Chapter 21 Linear Inequalities and Linear Programming

Sr	Questions	Answers Choice
1	If ab > 0 and a < 0, which of the following is negative?	A. b B. -b C. -a D. (a - b)²
2	(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
3	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
4	Optimize means _____ a quantity under certain constraints	A. Minimize B. Maximize C. Maximize or minimize D. None of these
5	Corner point of the system x - y≤ 2,x + y≤ 4,2x -y≤ 6,x≥ 0,y≥ 0	A. (1,4) B. (4,2) C. (3,1) D. (4,1)
6	3x + 4 = 0 is	A. not inequality B. equation C. identity D. inequality
7	3x + 4 > 0 is	A. equation B. identity C. inequality D. none of these
8	A point (x,y) which satisfy a linear inequality in two variables form its	A. Solution B. Domain C. Range D. None
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	x = _____ is in the solution of 2x - 3 < 0	A. 2 B. -2 C. 3 D. 4
11	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)
12	Which of the following ordered pair is a solution of the inequality x+2y<6?	A. (2,3) B. (2,2) C. (6,0) D. (1,1)
13	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
14	3x + 4 ≥ 0 is	A. equation B. inequality C. identity D. none of these
15	2x + 3y > 4 is a linear inequality in	A. one variable B. two variables C. three variables

		D. none of these
16	A farmer possesses 100 hectometers of land and wants to grow corn and wheat. Cultivations of corn requires 3 hours per hectometer while cultivation of wheat requires 2 hours per hectometer. Working hours cannot exceed 240. If he gets a profit of Rs. 20 per hectometer for corn and Rs. 15 per hectometer for wheat. The profit function for the farmer is	A. P(x, y) = 20x + 15y B. P(x, y) = 2x + 3y C. P(x, y) = x + y D. P(x, y) = 3x + 2y
17	The point _____ is in the solution of the inequality 4x - 3y < 2	A. (0,1) B. (2,1) C. (2,2) D. (3,3)
18	The solution set of the inequality ax + by < c is	A. straight line B. half plane C. parabola D. none of these
19	(0,0) is in the solution of the inequality	A. x + y > 3 B. x - y > 2 C. 3x + 2y > 5 D. 3x - 2y < 2
20	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