ECAT Pre General Science Mathematics Chapter 21 Linear Inequalities and Linear Programming Online Test

Sr	Questions	Answers Choice
1	The graph of y> 0 is the upper - half of:	A. y-axis B. x-axis C. 1st and 4th quandrant D. 2nd and 3rd quadrant
2	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)
3	The corner point of the boundary lines, x-2y 2x + y = 2 is:	A. (2,6) B. (6,2) C. (-2,2) D. (2,-2)
4	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
5	For graphing a linear inequality, solid line is drawn if the inequality involves the symbols:	A. $>$ or $<$ B. $\underline{>}$ or $\underline{<}$ C. $=$ or $\neq$ D. $=$ or $>$
6	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)
7	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
8	A _____ divides the plane into left and right half planes.	A. Vertical line B. Horizontal line C. Non vertical line D. Inequality
9	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
10	The graph of the linear equation of the form ax =by = c is a line which divided the plane into:	A. Two similar regions B. Two disjoint regions C. Four equal parts D. One region
11	Multiplying each side of an inequality by (-1) will:	A. Not effect B. Change the sign C. Become zero D. Not defined
12	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
13	The solution set of x < 4 is	A. $-\infty < x < 4$ B. $-\infty > x > 4$ C.

"Times New Roman"; font-size: 24px; color: rgb(34, 34, 34); text-align: center; background-color: rgb(255, 255, 248);"><i>∞</i>< x < 2
D. -<i>∞</i>> x > 2

14	The graph of linear equation 2x + 3y = 10	A. Parabola B. Circle C. Hyperbola D. Straight line
15	Inequalities have _____ symbol	A. 2 B. 3 C. 4 D. 1
16	There may be _____ feasible solution in the feasible region	A. Infinite B. Finite C. Defined D. None of above
17	Optimize means _____ a quantity under certain constraints	A. Minimize B. Maximize C. Maximize or minimize D. None of these
18	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
19	ab > 0 and a > 0 then	A. a > b B. a < b C. a = b D. None
20	r + 3 >5 then which is true	A. r + 2 > 4 B. r + 2 < 4 C. r + 2 = 4 D. None
21	x is a member of the set [-1, 0, 3, 5] y is a member of the set {-2, 1, 2, 4} which is possible?	A. x - y = -6 B. x - y < -6 C. x - y > -6 D. None
22	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
23	Question Image	A. p < r B. p > rr C. p + r < 0 D. p - r < 0
24	If -1 < x < 0, which of the following statements must be true?	A. $x < x^2 < x^3$ B. $x < x^3 < x^2$ C. $x^2 < x^3 < x$ D. $x^2 < x < x^3$
25	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)
26	Which is in the solution set of 4x - 3y < 2	A. (3, 0) B. (4, 1) C. (1, 3) D. None
27	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

28	A point of a solution region where two of its boundary lines intersect, is called	A. Boundary B. Inequality C. Half plane D. Vertex
29	Which is not a half plane	A. ax + by < c B. ax + by > c C. Both A and B D. None
30	If 4 - x >5, then	A. x > 1 B. x > -1 C. x < 1 D. x < -1