

Name: _____						Subject: Mathematics		Class: 12 th		Time: 80 minutes		Total Marks: 40	
Chapter No.05				MJDexpert.com				Obtained marks					

Note: Please attempt any 10 short questions from Question 2. Also, attempt both parts of Question 3. Cutting and removal of any content is strictly prohibited.

Question.No.01:- Choose the correct answer. (10x01=10)

i.	Solution inequality $x + 2y < 6$ is	(1 , 1)	(1 , 3)	(1 , 4)	(1 , 5)
ii.	An expression involving any one of the symbols $>, <, \leq, \geq$ is called	Equation	Inequality	Identity	Linear equation
iii.	$ax + b < c$ is linear inequality in	One variable	Two variable	Three variable	Four variable
iv.	$X = 4$ is the solution of	$x + 3 > 0$	$x - 3 < 0$	$x + 3 = 0$	$x - 3 = 0$
v.	The region restricted to the first quadrant is called	Solution set	Optimal solution	Feasible region	None of these
vi.	The non-negative inequalities is called	Parameter	Constant	Decision variable	Vertices
vii.	If P (x, y) is point in co-ordinate system then x is called	Co-ordinate	Ordinate	Abcissa	`origin
viii.	A function which to be maximized or minimized is called	Feasible function	Objective function	Both A and B	None

Question.No.02:-Attempt all parts: (03x08=24)

i.	Graph the linear equation $3x + 7y \geq 21$
ii.	Graph the System of inequality $2x + y \leq 6$, $5x - 4y \leq 20$
iii.	Graph the System of inequality $x - 2y \leq 6$, $2x + y \geq 20$, $y \geq 0$
iv.	Define Decision variables.
v.	Graph the feasible region $2x - 3y \leq 6$, $2x + 3y \leq 12$, $x \geq 0$, $y \geq 0$
vi.	Define vertex.
vii.	Define linear inequalities.
viii.	Graph the linear equation $2x + 1 \geq 0$

Question.No.03:- Attempt all parts: (02x04=08)

i.	Indicate the solution region of the system of linear equalities by shading $x + y \leq 5$ $y - 2x \leq 2$ $x \geq 0$
ii.	Maximize $f(x, y) = x + 3y$ subject to constraints $2x + 5y \leq 30$ $5x + 4y \leq 20$ $x \geq 0$, $y \geq 0$