Sr. No.	Questions	A	B	C	D
1	In the following, linear equation is:	$5x > 7$	$4x - 2 < 1$	$2x + 1 = 1$✓	$4 = 1 + 3$
2	Solution of $5x - 10 = 10$ is:	0	50	4✓	-4
3	If $7x + 4 < 6x + 6$, then x belongs to the interval	$(2, \infty)$	$[2, \infty)$	$(-\infty, 2)$✓	$(-\infty, 2]$
4	A vertical line divides the plane into	left half plane	right half plane	full plane	two half planes✓
5	The equation formed from the linear inequality is called	cubic equation	associated equation✓	quadratic equation	feasible region
6	$3x + 4 < 0$ is:	equation	inequality✓	not inequality	identity
7	Corner point is also called:	code	vertex✓	curve	region
8	$(0,0)$ is solution of inequality:	$4x + 5y > 8$	$3x + y > 6$	$-2x + 3y < 0$✓	$x + y > 4$
9	The solution region restricted to the first quadrant is called:	objective region	feasible region✓	solution region	constraints region
10	A function that is to be maximized or minimized is called:	solution function	objective function✓	feasible function	none of these

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Solution of MCQs

1	A linear equation has an equality sign (=) and degree 1. So, $2x + 1 = 1$ is linear
2	$5x - 10 = 10 \Longrightarrow 5x = 20 \Longrightarrow x = 4$
3	$7x + 4 < 6x + 6 \Longrightarrow x < 2$ The solution is $x \in (-\infty, 2)$
4	A vertical line divides the plane into two half-planes. By geometry definition.
5	Linear inequality becomes an equation ⇒ Associated Equation
6	The expression contains an inequality sign (<), so it is an inequality.
7	Another name for a corner point is Vertex
8	Try $(0,0)$ in options: $-2(0) + 3(0) < 0$ ⇒ false, but none of the options satisfy $(0,0)$. Note: The question may have an error as none of the inequalities are satisfied by $(0,0)$.
9	The region satisfying all constraints in the first quadrant is the feasible region.
10	In optimization, this is the **objective function**.