

Chapter 12

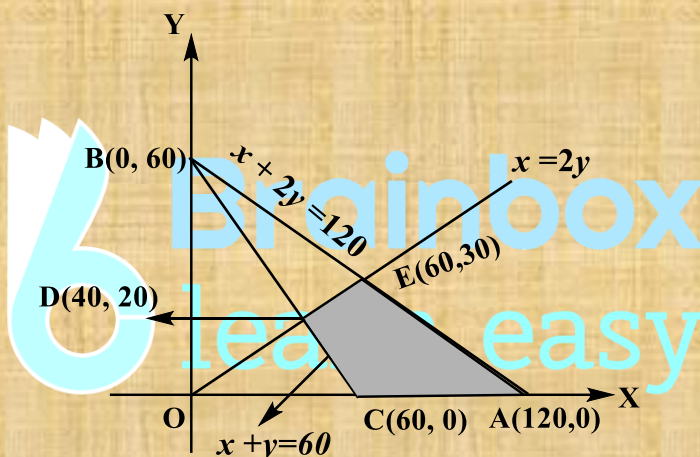
LINEAR PROGRAMMING

EXAMPLE- 4:

Maximise and minimise $z = 5x + 10y$ subject to
 $x + 2y \leq 120$, $x + y \geq 60$, $x - 2y \geq 0$, $x, y \geq 0$.

SOLUTION:

The feasible region is shown in the graph.



$$\therefore z(C) = 300$$

$$z(A) = 600$$

$$z(E) = 600$$

$$z(D) = 400$$

$\therefore$ Minimum value of 'z' is 300 at point C(60,0) .

Maximum value of 'z' is 600 along AE .