) Maximum $Z = 6x_1 + 8x_2$

Subject to Con

$5x_1 + 10x_2 \leq 60$ — (1)

$4x_1 + 4x_2 \leq 40$ — (2)

$x_1, x_2 \geq 0$

Graph LPP ல் under Graphical Method.

(1) $5x_1 + 10x_2 = 60$

$5 \times 0 + 10x_2 = 60$

$0 + 10x_2 = 60$

$10x_2 = 60$

$x_2 = 60/10 = 6$

(0, 6)

$5x_1 + 10x_2 = 60$

$5x_1 + 10 \times 0 = 60$

$5x_1 + 0 = 60$

$5x_1 = 60$

$x_1 = 60/5 = 12$

(12, 0)

(2) $4x_1 + 4x_2 = 40$

$4 \times 0 + 4x_2 = 40$

$0 + 4x_2 = 40$

$4x_2 = 40$

$x_2 = 40/4 = 10$

(0, 10)

$4x_1 + 4x_2 = 40$

$4x_1 + 4 \times 0 = 40$

$4x_1 + 0 = 40$

$4x_1 = 40$

$x_1 = 40/4 = 10$

(10, 0)

Objective Function:

$6x_1 + 8x_2$.

$6 \times 0 + 8 \times 0 =$

$0 + 0 = 0$

$6 \times 0 + 8 \times 6 =$

$0 + 48 = 48$

$6 \times 8 + 8 \times 2 =$

$48 + 16 = 64$

$6 \times 10 + 8 \times 0 =$

$60 + 0 = 60$

Maximum $Z = 64$.

ஆசிரியர் கையொழுத்து: _____

(0,0)

(0,6)

(8,2)

(10,0)