Assignment 2

1.Solve by using "Simplex Method"

Maximize , $Z= 3x_1 +5x_2$

Subject to,

$x_1 \leq 4$

$2x_2 \leq 12$

$3x_1 +2x_2 \leq 18$

And

$x_1 \geq 0;\ x_2 \geq 0$

2.

Maximize $Z= 3x_1 +2x_2$

Subject to,

$2x_1 + x_2 \leq 6$

$x_1 + 2x_2 \leq 6$

And

$x_1 \geq 0, x_2 \geq 0$

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3.

Maximize $Z = 3x_1 + 2x_2$

Subject to,

$x_1 \leq 4$

$x_1 + 3x_2 \leq 15$

$2x_1 + x_2 \leq 10$

And

$x_1 \geq 0, x_2 \geq 0$

4.

Maximize, $Z=6x_1+x_2+4x_3$

Subject to,

$3x_1+7x_2+x_3 \leq 15$

$x_1-2x_2+3x_3 \leq 20$

$x_1,x_2,x_3 \geq 0;$