LPP - SIMPLEX METHOD

Important Question Bank

Designed By

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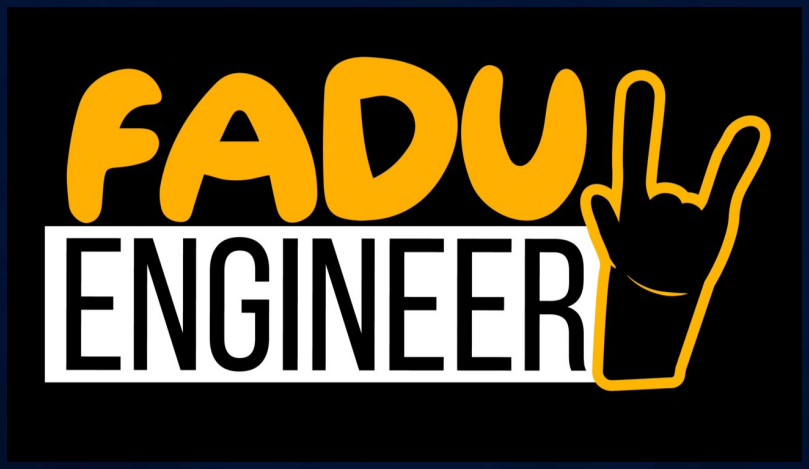

Important Questions

1) Solve the following LPP by Simplex Method,

Minimise: $Z = x_1 - 3x_2 + x_3$,

Sub. to: $3x_1 - x_2 + 2x_3 \leq 7$,

$2x_1 + 4x_2 \geq -12$,

$-4x_1 + 3x_2 + 8x_3 \leq 10$.

2) Solve the given LPP by Simplex Method.

Maximise: $Z = 4x_1 + 3x_2 + 6x_3$,

Sub. to: $2x_1 + 3x_2 + 2x_3 \leq 440$,

$4x_1 + 3x_3 \leq 470$,

$2x_1 + 5x_2 \leq 430$,

$x_1, x_2, x_3 \leq 0$.

3) Using Simplex Method Solve given LPP.

Maximise: $Z = 6x_1 - 2x_2 + 3x_3$,

Sub. to: $2x_1 - x_2 + 2x_3 \leq 2$,

$x_1 + 4x_3 \leq 4$,

$x_1, x_2, x_3 \geq 0$.

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4) Solve the following LPP using Simplex Method.

Maximise : $z = 5x_1 + 3x_2 + 7x_3$

Sub. to : $x_1 + x_2 + 2x_3 \leq 26,$

$3x_1 + 2x_2 + x_3 \leq 26,$

$x_1 + x_2 + x_3 \leq 18,$

$x_1, x_2, x_3 \geq 0$

5) Solve the following LPP by using Simplex.

Maximise : $z = 3x_1 + 2x_2 + 5x_3$

Sub. to : $x_1 + 2x_2 + x_3 \leq 430,$

$3x_1 + 2x_3 \leq 460,$

$x_1 + 4x_2 \leq 420,$

$x_1, x_2, x_3 \geq 0.$

6) Convert the following LPP into Standard form,

Maximise : $z = 3x_1 + 2x_2 + 5x_3$

Sub. to : $2x_1 - 3x_2 \leq 3,$

$x_1 + 2x_2 + 3x_3 \geq 5,$

$3x_1 + 2x_3 \leq 2,$

$x_1, x_2 \geq 0.$

7) Convert the following LPP into the Standard form,

Maximise: $Z = 3x_1 + 4x_2 - 2x_3$,

Subject to: $6x_1 - 4x_2 \leq 5$,

$3x_1 + x_2 + 4x_3 \geq 11$,

$4x_1 + 3x_2 \leq 2$,

$x_1, x_2 \geq 0$.