Standard from Ifos - 2013 Find the optimal assignment cost from the following Cost matrix :>) by flungarian populog => There norof The Rows = no. of columns = order of square matrix. Cost matrix Substract min cost of each row from corresponding (since each) Agin Substract 0 0 2 2 0 Juliant it from 4 we get same Table-2 after Now and Tolumn Reduction, cover all zeros with mainimum no. of straight lines. Toble-3 4 lines, which is equal too oreder of matrix are required so cover all zero. Hence optimal Solution has see obtained. 10 Ø Optimal assignment is grows for Jarley -

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	Optimal Solution (Assignment) is =>	1 7/10/20
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Tolin Solve the following Salesman Problem - [hum Rolling 2 - Sec 2nd last page of this Notebook.

 $\alpha_1 = 4_1 \quad \alpha_2 = 1_1 \quad \alpha_3 = 3$ is a feasible solution of the [14]

system of equations! -

ne1 + 2x2 + 3x3 = 15 reduce the feasible solution to two different basic

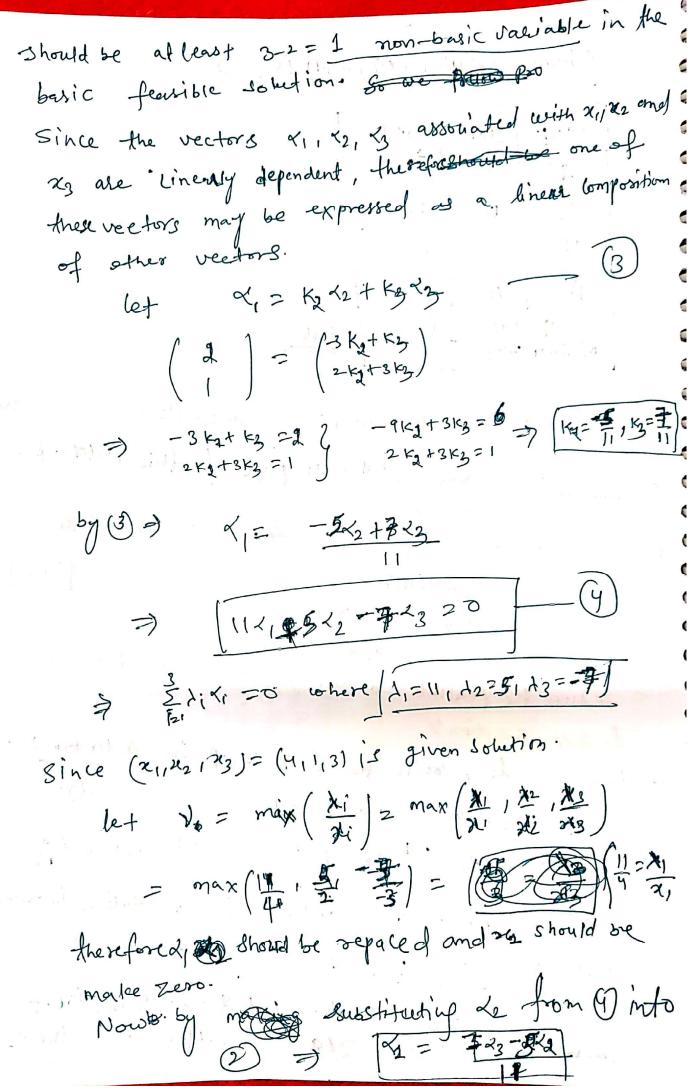
feasible solutions.

Solution: first write the given L. P.P in Vector form: x, x, + x2 x2 + x3 x3 = b

where $\langle 1, \mathbf{d} \rangle = \begin{pmatrix} 2 \\ 1 \end{pmatrix}, d_2 = \begin{pmatrix} -\frac{3}{2} \\ \frac{7}{2} \end{pmatrix} = \begin{pmatrix} 1 \\ 3 \end{pmatrix}$ and $b_2 \begin{pmatrix} 8 \\ 15 \end{pmatrix}$

Since $x_1 = 4$, $x_2 = 1$, and $x_3 = 3$ is a solution, therefore

Since there are 3 valiables and 2 equations, there cannot be more than 2008ic variables and there



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$$\frac{4x_{1}+(5x_{1}-1)x_{2}}{2} + 3x_{3} = 5$$

$$\Rightarrow 4x_{1}+x_{2}+3x_{3} = 5$$

$$\Rightarrow 4x_{1}+x_{2}+3x_{3} = 5$$

$$\Rightarrow 6x_{1}+3x_{2}+4x_{3} = 5$$

$$\Rightarrow 6x_{1}+3x_{2}+4x_{3} = 5$$
Hence the New Basic Solution is
$$(x_{1}, x_{2}, x_{3}) = (0, \frac{3}{11}, \frac{3}{11}) \qquad \text{and}$$

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$$(x_{1}, x_{2}, x_{3}) = (x_{1}, x_{1}+5x_{2}) = 5$$

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