1. Solve the Lpp
2. Solve the Lpp by simplex method
3. Solve the Lpp by big M method

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1. Solve the transportation problem by VAM

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | D1 | D2 | D3 | D4 |  |
| O1 | 5 | 8 | 3 | 6 | 30 |
| O2 | 4 | 5 | 7 | 4 | 50 |
| O3 | 6 | 2 | 4 | 5 | 40 |
|  | 30 | 20 | 40 | 30 |  |

1. Find the optimal cost from the cost matrix

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | A | B | C | D |
| I | 9 | 12 | 10 | 10 |
| II | 8 | 12 | 7 | 9 |
| III | 4 | 6 | 7 | 8 |
| IV | 8 | 4 | 5 | 5 |

1. Solve the system of equation by Gauss elimination
2. Using Newton Raphson method find a real root of correct to 3 decimal places with initial approximation
3. Find f(10.7) by Lagrange interpolation

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| x | 10.5 | 10.6 | 10.8 | 10.9 | 11.1 | 11.4 |
| y | 0.27 | 0.34 | 0.4 | 0.41 | 0.38 | 0.32 |

1. Evaluate by Trapezoidal Rule and Simpson’s 1/3 rd rule for n=10,compare the result between them.
2. Find y(0.4) by Runge Kutta method of forth order with h=0.2 ,where y(0)=0.8.