## ASSIGNMENT: 7

## UNIT : 3 Exercise and case problems on Assignment and Travelling sales man Problems

1. Solve the following assignment problem by minimization method.

|  | I | II | III | IV | V |
| :--- | :--- | :--- | :--- | :--- | :--- |
| M1 | 12 | 5 | 9 | 18 | 11 |
| M2 | 13 | 7 | 6 | 12 | 14 |
| M3 | 3 | 2 | 3 | 4 | 5 |
| M4 | 18 | 9 | 12 | 16 | 15 |
| M5 | 12 | 6 | 14 | 19 | 10 |

2. The owner of a small machine shop has four machinists available. To assign jobs for the days. Five jobs are offered with the expected profit in rupees for each machinist on each job has been shown in matrix below. Find the assignment of machinists to jobs that will result in a maximum profit. Which job should be declined?

|  | JOB |  | 4 |  | $\square$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | A | B | C | D | E |
| MACHINIST | 1 | 6.20 | 7.80 | 5.00 | 10.10 | 8.20 |
|  | $2]=$ | 7.10 | 8.40 | 6.10 | 7.30 | 5.90 |
|  | 3 | 8.70 | 9.20 | 11.10 | 7.10 | 8.10 |
|  | 4 | 4.80 | 6.40 | 8.70 | 7.70 | 8.00 |

