

**ASSIGNMENT : 6**

**UNIT : 3 Exercise and case problems on Transportation and Transshipment Problems.**

1. A Manufacturer wants to ship 8 loads of his product as shown in following matrix. The matrix gives the mileage from origins, O to the destinations, D. The shipping cost is Rs. 10 per load per mile. What will be the optimal schedule and optimal cost? Use Vogel's approximation method to find initial basis feasible solution and MODI method to obtain optimal solution.

	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	Supply
O <sub>1</sub>	50	30	220	1
O <sub>2</sub>	90	45	170	3
O <sub>3</sub>	250	200	50	4
Demand	4	2	2	

2. Company has factories A<sub>1</sub>, A<sub>2</sub> & A<sub>3</sub> which supply to warehouses at W<sub>1</sub>, W<sub>2</sub> & W<sub>3</sub>. Weekly factory capacities are 240, 200 & 130 units respectively. Weekly warehouses requirements are 190, 150 & 110 units respectively. Unit transportation costs Rs. As follows:- Find I.B.S. BY VAM method & Optimum solution BY MODI method.

	W <sub>1</sub>	W <sub>2</sub>	W <sub>3</sub>	SUPPLY
A <sub>1</sub>	16	20	12	240
A <sub>2</sub>	14	8	18	200
A <sub>3</sub>	26	24	16	130
DEMAND	190	150	110	450