

ASSIGNMENT

1. Solve the following transportation problem by North-West corner rule and find the total transportation cost.

From	To			Supply
	I	II	III	
A	7	12	9	160
B	8	10	6	100
C	10	9	12	120
Demand	80	110	190	

Answer: A to I: 80, A to II: 80, B to II: 30, B to III: 70, C to III: 120.

Total transportation cost: 3680 Rs.

2. Obtain the initial basic feasible solution by matrix minima method.

From	To				Availability
	B1	B2	B3	B4	
A1	11	13	17	14	250
A2	16	18	14	10	300
A3	21	24	13	10	400
Requirement	200	225	275	250	

Answer: A1 to B1: 200, A1 to B2: 50, A2 to B2: 175, A2 to B3: 125, A3 to B3: 150, A3 to B4: 250.

Total transportation cost: 12200 Rs.

3. A firm has 3 plants A, B and C and three warehouses D, E and F. Daily production at three plants is 50, 40 and 60

units respectively and the daily requirements at three warehouses is 20, 95 and 35 units respectively. Shipping costs are given in the following table. If the firm wants to minimize the total shipping cost, how should it transport units?

Plant	Warehouse		
	D	E	F
A	6	4	1
B	3	8	7
C	4	4	2

Answer: A to E: 15, A to F: 35, B to D: 20, B to E: 20, C to E: 60.

Total shipping cost: 555 Rs.