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Class:- MSC CS Part 2 OR-Mini Project

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Page _____

- 1) A company has a current shipping schedule which is being questioned by the management as to whether or not it is optimal. The firm has three factories and five warehouses. The necessary data in terms of transportation costs in Rs per unit from a factory to a destination and factory capacities and warehouse requirements are as follows
- Lowest Cost Method

Warehouses	Factories cost in Rs per unit			Requirement of warehouse in units
	X	Y	Z	
A	5	⁴⁰⁰ 4	8	400 - 0
B	8	7	⁴⁰⁰ 4	400 400 - 0
C	6	7	⁵⁰⁰ 6	500 - 0
D	6	²⁰⁰ 6	²⁰⁰ 6	400 - 200 - 0
E	⁸⁰⁰ 3	5	4	800 - 0
Factory capacity	800 - 0	600 - 200 - 0	1100 - 100 - 200 - 0	

$$\begin{aligned}\text{Total cost} &= 400(4) + 400(4) + 500(6) + 200(6) + 200(6) \\ &= 1600 + 1600 + 3000 + 1200 + 1200 \\ &= \underline{\underline{8600}}\end{aligned}$$

∴ Hence Basic Feasible solution using Lowest Cost Method is 8600

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