13. Explain the scope of Operations Research in Business &
    Management with examples.

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DH-266

M.B.A. (PT) IIIrd Semester Examination, 2014

Operation Research

Paper - P-301

Time : 3 Hours]   [Maximum Marks : 70

Section - 'A'   4×7=28

Short Answer Type Questions

Note :- Answer any four questions. Each question carries 7
        marks.

1. Define operations research and state is limitations.

2. Define transportation problem & give an example.

3. Briefly exaplin the theory of replacement.

4. Explain sequancing problem with an example.

P.T.O.

5. For the following 'two-person, zero sum' game, find the optional strategies for the two players & value of the game

Player B

	B_1	B_2	B_3
A_1	5	9	3
A_2	6	−12	−11
A_3	8	16	10

Player A

6. Define linear programming problem with an example.

7. Differentiate between critical path method (CPM) and programme evaluation & Review technique (PERT).

8. What is a model ? Explain any two useful 'or' models.

SECTION - 'B'   3×14=42

Long Answer Type Questions

Note :- Attempt any **three** question. Each question carries 14 marks.

9. Explain the methodology of O.R.

10. Explain each of the following with an example.

   (i)   Decision making under certainty.

   (ii) Decision making under uncertainty.

   (iii) Decision making under risk.

   (iv) Decision making under conflict.

11. For the following transportation problem, obtain initial feasible solution by least cost method

		Destination				Supply
		1	2	3	4	↓
Source	1	10	8	11	7	20
	2	9	12	14	6	40
	3	8	9	12	10	35
Demand→		16	18	31	30	

The entries in the matrix indicate the cost in rupees for transporting a unit from a source to a destination.

12. Solve the following assignment problem to minimize the total cost

		Jobs			
		1	2	3	4
	1	15	13	14	17
Workers	2	11	12	15	13
	3	13	12	10	11
	4	15	17	14	16

P.T.O.