

Code No: 721CN

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MBA II Semester Examinations, October/November-2020
QUANTITATIVE ANALYSIS FOR BUSINESS DECISIONS

Time: 2 hours

Max. Marks: 75

Answer any five questions
 All questions carry equal marks

1. Elucidate the Nature and scope of Operations Research. [15]
2. Explain the guidelines for formulation of Linear Programming problem. [15]
3. Discuss algorithm for solving assignment model. [15]
4. Explain the importance of Decision Theory in taking managerial decisions. [15]
5. A company has three plants A, B, C and three ware houses X, Y, Z. The number of units available at the plants is 60, 70, 80 respectively. The demands at X, Y, Z are 50,80,80 respectively. The unit costs of transportation are as follows:

	X	Y	Z
A	8	7	3
B	3	8	9
C	11	3	5

Find the allocation so that the total transportation cost is a minimum. [15]

6. A company has four machines to do three jobs. Each job can be assigned to one and only one machine. The cost of each job on each machine is given in the following table.

		Machines			
		1	2	3	4
Jobs	A	18	24	28	32
	B	8	13	17	19
	C	10	15	19	22

What are the job assignments which will minimize the cost? Also find the optimum cost. [15]

7. A repair facility shared by a large number of machines has 2 series stations with respective service rates of 2 per hour and 3 per hour. If the average rate of arrival is 1 per hour, find a) the average number of machines in the system. b) the average waiting time in the system. c) Probability that both service stations are idle. [15]
8. Write short notes on
 - a) Northwest corner Method
 - b) Queue Discipline
 [15]

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