MB-116D

Sl.No. :

Total No. of Pages : 4

Third Semester M.B.A. Degree Examination, May/June - 2023
(NON CBCS) (SLM Scheme)
MANAGEMENT
Operations Research and Analytics (Elective - D)

Time : 3 Hours **Max. Marks : 80**

SECTION - A

Q1) **Answer any five sub-questions. Each sub-question carries three marks :** **[5 × 3 = 15]**

a) How operational Research helps in decision making?

b) What is co-efficient of Range.

c) What do you mean by data mining.

d) What are the applications of simulation.

e) How do you balance a unbalance to importation problem?

f) What is prescriptive analysis.

g) What is the need of replacement.

SECTION - B

Answer any four questions. Each question carries five marks : **[4 × 5 = 20]**

Q2) Write a note on supply Chain Analytics.

Q3) Samples of 4 each were taken for the study, the measurement of which were noted as follows :

Sample No.	Measurement in mn			
1	20	22	25	24
2	18	23	20	26
3	24	25	22	20
4	23	21	26	24
5	24	25	24	21

Q4) A manufacturing company keeps stock of a special product. Previous experience indicates the daily demand as given below.

Daily demand	5	10	15	20	25	30
Probability	1.01	0.20	0.15	0.50	0.12	0.02

Simulate the demand for the next 10 days. Also find the daily average demand for the product on the basis of Simulator data

Random numbers : 82, 96, 18, 96, 20, 84, 56, 11, 52, 03.

Q5) Explain various uses of Excel sheet is analyze data in statistics.

Q6) Explain the application Markov analysis with suitable example.

Q7) A person has 4 children who have various interest in different Jobs,. Assuming no two lien do the same job which job suits whom.

	1	2	3	4
1	1	4	6	3
2	9	7	10	9
3	4	5	11	7
4	8	7	8	5

SECTION - C

Answer any three questions. Each question carries ten marks : [3 × 10 = 30]

Q8) The cost of machine Rs. 10,000/-. Its operating cost and resale value are given below :

Year	1	2	3	4	5	6	7	8
Operating cost	1000	1200	1400	1700	2000	2500	3000	3500
Resale value	6000	4000	3200	2600	2500	2400	2000	1600

Determine at what time it could be replaces.

Q9) Bring out various challenges in managing by data and elaborate their effectiveness in creating organizational values.

Q10) A travelling salesman has to visit five cities. He wishes to start from a particular city, visit each city once and then return to his starting point.

The travelling lost for each with from a particular with is given below.

From/to	A	B	C	D	E
A	-	3	6	2	3
B	3	-	5	2	3
C	6	5	-	6	4
D	2	2	6	-	6
E	3	3	4	6	-

What is the sequence of visit of salesman so that lost is minimum.

Q11) Explain the application simulation in Business.

Q12) Explain the stages of data processing.

SECTION - D

Q13) **Case (Compulsory) :** **[1 × 15 = 15]**

Prepare a list of Business Analytics that would collect for a Retail store in order to improve.

a) Overall Customer Experience

b) Ease of store movement for the customer

c) Reducing customer time of the billing desk.

⌘⌘⌘