

Code No: 743AC
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MBA III Semester Examinations, April/May-2019
DATA ANALYTICS
Time: 3hours
Max.Marks:75

Note: This question paper contains two parts A and B.
 Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A
5 × 5 Marks = 25

- 1.a) What is data? Explain the importance of Analytics? [5]
- b) What is the best measure of location? [5]
- c) What is simple and multiple Regressions? [5]
- d) Define Data mining? Explain the scope of Data mining? [5]
- e) What is simulation? [5]

PART -B
5 × 10 Marks = 50

2. Explain the different types of data visualization tools? [10]
- OR**
3. What is business Analytics and its types. [10]

4. A random variable X has the following probability function:

X	0	1	2	3	4	5	6	7
P(X)	0	k	2k	2k	3k	k ²	2k ²	7k ² +k

- a) Find k
- b) Evaluate $p[x < 6]$, $p[x >= 6]$
- c) If $p[x <= c] > 1/2$ find the minimum value of c. [10]

OR

5. Explain about Random sampling methods with merits and demerits. [10]
6. The 3 samples given below have been obtained from a normal population with equal variance. Test the hypothesis that sample means are equal. [10]

A	8	10	7	14	11
B	7	5	10	9	9
C	12	9	13	12	14

OR

7. Obtain the regression lines associated with the following data by the method of least squares. [10]

X	1	2	3	4	5
Y	166	184	142	180	338

8. Explain about the cluster Analysis with an example. [10]

OR

9. Explain about different types of learning and brief on data exploration and reduction. [10]



10. Explain the steps involved in Monte-Carlo simulation. [10]

OR

11. The occurrence of rain in a city on a day is dependent upon whether or not it rained on the previous day. If it rained on the previous day, the rain distribution is:

Event	No rain	1cm.rain	2cm.rain	3cm .rain	4cm.rain	5cm.rain
Probability	0.50	0.25	0.15	0.05	0.03	0.02

If it did not rain on the previous day the rain distribution is:

Event	No rain	1cm.rain	2cm.rain	3cm .rain
Probability	0.75	0.15	0.06	0.04

Simulate the city's weather for 10 days and determine by rainfall during the period.

Use the following random number for simulation: 67, 63, 39, 55, 29, 78, 70, 06, 78, 76

Assume that for the first day of the simulation it had not rained the day before. [10]

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