

R15

Code No: E743AC

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	1 cm.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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