

Code No: 763AC

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**MBA III Semester Examinations, July/August - 2021**  
**DATA ANALYTICS**

Time: 3 hours

Max.Marks:75

**Answer any five questions**  
**All questions carry equal marks**

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1. Explain the different types of data visualization tools and state the statistical tools for summarizing data. [15]

2. Define Business Analytics in detail with its types? [15]

3. The probability distribution for the random variable X follows

X	20	25	30	35
F(X)	0.20	0.15	0.25	0.40

a) Is this probability distribution valid? Explain.

b) What is the probability that  $X=30$ ?

c) What is the probability that X is less than or equal to 25?

d) What is the probability that X is greater than 30? [4+4+4+3]

4. In a study about viral fever, the numbers of people affected in a town were noted as:

Age in years	0-10	10-20	20-30	30-40	40-50	50-60	60-70
No. of people affected	3	5	16	18	12	7	4

Find its Standard deviation. [15]

5. Write down the characteristics of correlation coefficient. Also state how does rank correlation differ from Pearson correlation coefficient? [15]

6. Obtain a regression line associated with the following data by the method of least squares.

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

[15]

7.a) What is Classification and Regression Trees (CART)?

b) Explain about different types of learning and brief on data exploration and reduction.

[7+8]

8.a) Analyze in detail about Advantages and Disadvantages of simulation technique.

b) Explain the steps involved in Monte-Carlo simulation.

[8+7]

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