

R19

Code No: 763AC

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

MBA III Semester Examinations, September - 2023

DATA ANALYTICS

Time: 3 Hours

Max.Marks:75

Note: i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART - A

(25 Marks)

- 1.a) List out the types of unstructured data available for Analysis. [5]
- b) What is Random Sampling? How does one ensure randomness? What are its advantages? [5]
- c) What are the different methods of measuring Correlation? [5]
- d) What is cause and effect Modeling? [5]
- e) What are the merits and demerits of Simulation approach? [5]

PART - B

(50 Marks)

- 2.a) Briefly explain the scope of Business Analytics.
- b) Outline the steps for creating the following charts using Microsoft Excel.
 - i) Area chart .
 - ii) Scatter chart. [5+5]

OR

- 3.a) What is Percentile? How would you use Excel Rank and Percentile tool for computing the academic performance of students in a class?
 - b) What is Descriptive statistics? Explain in brief. [6+4]
4. A survey of 200 college graduates who have been working for at least 3 years found that 90 owned only mutual funds, 20 owned only stocks, and 70 owned both.
- a) What is the probability that an individual owns a stock? A mutual fund?
 - b) What is the probability that an individual owns neither stocks nor mutual funds? [10]

OR

- 5.a) Which are the theoretical distributions that find their use in Distribution Fitting? Explain.
- b) What is Multiplication law of Probability? Illustrate your answer with an example. [5+5]

- 6.a) What is ANOVA and where is it used?
b) Describe the procedure followed in ANOVA. [4+6]

OR

7. The following table shows the age of six people and their certain body parameters.

Age X	52	63	25	36	72	65
Body parameter Y	43	53	25	33	79	62

Obtain regression of Y on X and find out the expected body parameter of a person who is 45 years old. [10]

- 8.a) Data mining is Primarily a predictive Analytic approach. Briefly comment on the statement.
b) What is Affinity Analysis? Explain. [5+5]

OR

- 9.a) What is Cluster Analysis? Explain how it can be used to explore and reduce data.
b) Brief on Logistics Regression. [5+5]

- 10.a) Briefly explain the process of Monte Carlo Simulation.
b) What is a Pseudo Random number generator? What are its applications? [5+5]

OR

11. A businessman has two independent investment portfolios A and B available to him, but he lacks the capital to undertake both of them simultaneously. He can choose A first and then stop, or if A is not successful, then take B or vice versa. The probability of success for A is 0.6, while for B it is 0.4. Both investment schemes require an initial capital outlay of Rs.10,000 and both return nothing if the venture is unsuccessful. Successful completion of A will return Rs.20,000 over cost and successful completion of B will return Rs.24,000 over cost. Draw decision tree and determine the best strategy. [10]

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