

R19

Code No: 763AC

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

MBA III Semester Examinations, February - 2025

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) Compare and analyze how big data differs from traditional data in supporting business analytics. [5]
- b) Interpret the significance of measures of association in understanding relationships between variables in a dataset. [5]
- c) Demonstrate the process of building a good regression model, incorporating the method of least squares. [5]
- d) Translate the principles of cluster analysis into a business scenario for customer segmentation. [5]
- e) Outline the procedure for validating a simulation model to ensure reliable outputs. [5]

PART - B

(50 Marks)

2. Judge the significance of data visualization tools in making business decisions and explain how they can enhance data interpretation. [10]

OR

3. Interpret the role of statistical methods in summarizing large datasets and determine their effectiveness in providing insights for business growth. [10]

- 4.a) let the three coins be tossed and the number of heads observed, then the sample space is $S = \{0,1,2,3\}$. How do you calculate the probability?

- b) Describe the measures of dispersion. [6+4]

OR

- 5.a) A Person numbered as 2 tosses a die marked as 1,1,2,2,3,3 twice. Find the probability that, he gets his number at least once (Assume all cases are equally likely).

- b) Brief on data modeling and distribution fitting. [6+4]

6. Find karl pearson's coefficient of correlation from the following data between height of father (x) and height of son (y). [10]

x	64	65	66	67	68	69	70
y	66	67	65	68	70	68	72

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OR

7. Calculate coefficient of correlation from the following data : [10]

QA

x	1	2	3	4	5	6	7	8	9
y	9	8	10	12	11	13	14	16	15

8. Assess the impact of data exploration and reduction on improving the quality and efficiency of data mining models. [10]

OR

9. Prioritize the importance of data exploration and reduction in preparing a dataset for machine learning and explain how they influence model outcomes. [10]

QA

10. Explain the role of random number generation in simulations and how it impacts the accuracy of outcomes. [10]

OR

11. Describe a scenario where decision tree analysis is the most suitable tool for risk evaluation and justify its application. [10]

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