

Roll.No.

22UDSCT4004

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai - 600 044.

B.Sc.Cs with DS - END SEMESTER EXAMINATIONS - NOVEMBER 2025
SEMESTER - IV

22UDSCT4004 -Data Analytics

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. Interpret the primary characteristics and the different types of Big Data.
2. Demonstrate the use a scatter plot to analyze the relationship between two variables.
3. Analyze the concept of outliers and relate two common methods used to detect them.
4. Apply the concept of a residual plot to assess a regression model and discuss its significance.
5. Categorize the measures of central tendency: mean, median, and mode with examples.
6. Differentiate Pearson and Spearman correlation.
7. Describe the process and importance of data discretization.
8. Dissect the role of simple linear regression in data analysis with an example.

Section C

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. Elucidate the three methods to handle missing data in real-world datasets with examples.
10. Outline the different univariate graphical tools (Bar chart, Pie chart, Histogram, Box plot) and their uses in data visualization.
11. Examine the regression analysis and how regression lines summarize multivariate data.
12. Formulate the data pre-processing steps: cleaning, integration, reduction, and transformation, and their importance.
13. Distinguish the model evaluation using residual/distribution plots, overfitting, and cross-validation.
