

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.CSc.(DS) - END SEMESTER EXAMINATIONS - APRIL 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. Describe the differences between structured, unstructured, and semi-structured data with examples.
2. Classify the various aspects of covariance. How to predict the relationship between two variables?
3. Discuss the methods used to handle missing values, such as imputation and deletion.
4. How can visualization techniques be used to evaluate a regression model?
5. How histogram is different from a bar chart? Predict how it is used to represent continuous data.
6. Compute the regression coefficients in a detailed example.
7. Explain the role of data discretization in transforming continuous data into discrete categories.
8. Why is cross-validation an important technique in model development, and how does it help in assessing model performance?

Section C

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

9. Illustrate the different steps involved in Exploratory Data Analysis (EDA).
10. Define skewness and kurtosis. Discuss how these two measures help in describing the shape of a distribution.
11. Examine the Karl Pearson's correlation coefficient in detail.
12. Classify the main strategies of data collection? Explain the differences between primary and secondary data collection methods with examples.
13. Explain the concepts of simple and multiple linear regression in How can visualization techniques be used to evaluate a regression model?
