

**FACULTY OF COMMERCE**  
**B. Com. (CBCS) (Business Analytics) IV – Semester Examination, April 2025**  
**(Only for Business Analytics)**  
**Subject: Forecasting & Predictive Analytics**  
**Paper : DSC – 403**

Time: 2 Hours

Max. Marks: 50

**PART – A**  
**(Short Answer Type)**

(5 x 2 = 10 Marks)

Note: Answer any five questions.

- 1/ Multivariate Regression
- 2/ Seasonal Indices
- 3/ Advantages of Decision Tree
4. Hyper Plane
5. Soft Clustering
6. Applications of Optimization
7. Naïve Bayes Classifier
8. Advantages of Simulation

**PART – B**  
**(Essay Answer Type)**

(5 x 8 = 40 Marks)

Note: Answer all the questions.

9. (a) What is Regression? Explain Role of Bivariate Regression in Data Analysis.  
 (OR)  
 (b) Identify the Components of Time Series Forecast in order to Predict Future Values.
10. (a) Explain KNN Algorithm in detail.  
 (OR)  
 (b) Explain how SVM Algorithm is used to solve Business Problems.
11. (a) Explain Role of Clustering Techniques in Statistical Data Analysis.  
 (OR)  
 (b) What is Clustering? Differentiate between K-mean and Hierarchical Clustering.
12. (a) What is Optimization? Explain types of Optimization in detail.  
 (OR)  
 (b) Explain the Role of Linear Optimization in solving a Business Problem
13. (a) What is Data Analysis? Explain types of Data Analysis Methods.  
 (OR)  
 (b) What is Simulation? Explain Role of Simulation in Predictive Analysis.

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