Roll No:
Date: __/__/____

St. Claret College

Autonomous, Bengaluru

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UG END SEMESTER EXAMINATION-MAY 2026
BBA II SEMESTER
BM 2525: BUSINESS ANALYSIS TECHNIQUES

TIME: 3 hours. **MAX. MARKS: 80**

This paper contains TWO printed pages and FOUR parts

Instructions:
1. **Verify and ensure that the question paper is completely printed.**
2. **Any discrepancies or questions about the exam paper must be reported to the COE within 1 hour after the examination.**
3. **Students must check the course title and course code before answering the questions.**

PART-A

Answer ALL questions. Each answer carries ONE mark. **[10 x 1 = 10]**

1. What is R primarily used for?
   a) Web development b) Statistical computing c) Game design d) Networking
2. Which function is used to create dataframes in R?
   a) pd.read_table() b) Create DataFrame() c) data.frame() d) DF()
3. Which data structure stores elements of the different types in R?
   a) List b) Vector c) Factor d) Array
4. Which function is used to filter rows based on a condition in R?
   a) select() b) filter() c) arrange() d) mutate()
5. Logistic regression is used for:
   a) Regression b) Classification c) Clustering d) Visualization
6. Time series analysis deals with:
   a) Spatial data b) Data over time c) Text data d) Images
7. Which is an example of unsupervised learning?
   a) Regression b) Classification c) Clustering d) Prediction
8. Linear programming is used for:
   a) Data cleaning b) Optimization problems c) Visualization d) Coding
9. Big Data is characterized by:
   a) Small volume b) 5Vs c) Only structured data d) No storage
10. Tableau is mainly used for:
    a) Programming b) Visualization c) Networking d) Database design

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PART-B

Answer any THREE questions. Each answer carries EIGHT marks. **[3 x 8 = 24]**

11. Discuss the data types and data structures in R with examples.
12. Analyze the role of functions in R. Illustrate different types of functions such as built-in functions, user-defined functions, and inline functions with syntax and examples.
13. Describe linear regression in detail. State the LINE assumptions.
14. What is Machine Learning? Differentiate between supervised vs unsupervised learning.
15. Discuss the concept of Big Data and its characteristics (5Vs).

PART-C

Answer any THREE questions. Each answer carries TWELVE marks. **[3 x 12 = 36]**

16. Describe time series analysis and forecasting methods.
17. Analyze the model evaluation techniques(MSE, R2, Accuracy, Precision, Recall and F1 Score) in machine learning/predictive modelling.
18. Discuss the types of big data(structured, unstructured and semi-structured) with examples. Write briefly about the importance of big data technologies.
19. What makes Tableau one of the most powerful BI tools? Differentiate between measures and dimensions in Tableau.
20. What is optimization? Describe Linear Programming and Integer Programming in detail, and briefly discuss their practical applications in real-world scenarios.

PART-D

Answer the question. The answer carries TEN marks. **[1 x 10 = 10]**

21. A Dataset contains the following fields: Order ID, Order Date, Region, Category, Sub-categories, Sales and Profit. Assume the dataset contains sufficient records across categories and time. Using Tableau, write the steps to:
    a) Create a Bar Chart showing Sales by Category.
    b) Create a Line Chart with Forecasting to show Sales trends over time.
    c) Discuss the 80-20 rule and how it can be applied to the above dataset.