

Roll No.

Total No. of Pages : 02

Total No. of Questions :10

MBA (Sem.-3)

DATA SCIENCES USING R

Subject Code :MBA-962-18

M.Code :77058

Date of Examination: 24-11-2025

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A** contains **EIGHT** questions carrying **TWO** marks each and students has to attempt **ALL** questions.
2. **SECTION-B** consists of **FOUR** Subsections : Units-I, II, III & IV. Each Subsection contains **TWO** questions each carrying **EIGHT** marks each and student has to attempt any **ONE** question from each Subsection.
3. **SECTION-C** is **COMPULSORY** and consist of **ONE** question carrying **TWELVE** marks.

SECTION-A

1. Explain briefly:

- Write about all the basic components of R software.
- Explain the responsibilities of data scientist in business analytics.
- What do you mean by decision tree?
- Write about clustering.
- What is the use of holdout method?
- What do you mean by "training data"?
- What is the use of confusion matrix?
- What do you mean by "mining stream data"?

SECTION - B

UNIT - I

2. Write about fraud and risk detection.

3. How do you find the following values using R software :

- a) Correlation
- b) Covariance

UNIT - II

4. Explain Support Vector Machine in detail.

5. Where do we use logistic regression?

UNIT - III

6. Explain random forest algorithm in detail.

7. Write the application of hierarchical clustering.

UNIT - IV

8. Write a detailed note on performance of classifiers.

9. What is the use of scalable machine learning?

SECTION - C

10. **Read the following Case study of Uber on Transportation and route optimization and answer the questions.**

Uber revolutionized the transportation industry by using data science to optimize ride-sharing and delivery routes. Their algorithms consider real-time traffic conditions, driver availability and passenger demand to provide efficient, cost-effective transportation services.

How data science could have played an important role in transportation and route optimization:

- a) By optimizing drive routes and minimizing detours.
- b) Uber's data-driven approach.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.