

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:

- a) Write about all the basic components of R software.
- b) Explain the responsibilities of data scientist in business analytics.
- c) What do you mean by decision tree?
- d) Write about clustering.
- e) What is the use of holdout method?
- f) What do you mean by "training data"?
- g) What is the use of confusion matrix?
- h) 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.