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BCACAC 384

Choice Based Credit System Sixth Semester B.C.A. Degree Examination, July/August 2023 (2021-22 Batch Onwards) E1: PROGRAMMING FOR ANALYTICS

Time: 3 Hours

Max. Marks: 80

Note: Answer **any ten** questions from Part – **A** and **any one full** question from **each** Unit in Part – **B**.

PART - A

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a) How to get help on any function of R? Give an example.

 $(10 \times 2 = 20)$

- b) What is the purpose of typeof() function in R? Give an example.
 - c) Name the functions used to add additional rows and columns in a Matrix.
 - d) What is Primary Key and Candidate Key?
- e) Write any two differences between flat file and relational database.
- f) Write any four types of database users.
- g) Expand SQL, CRUD.
- h) What is the use of COMMIT and ROLLBACK statements in SQL?
- i) Name any two Scalar functions.
- j) What is SAS?
- k) Mention two types of SAS variables.
- I) Mention two methods to import external data into SAS.

PART - B

Unit - I

- 2. a) Write a note on reserved words in R programming.
 - b) What is Data Frame in R? How do you create and access items in it? Explain with an example.
 - c) Briefly explain sort() function and order() function.

(4+5+6)

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in SAS.



(5+5+5)

3. a) What is the output of the following built-in constants? a) LETTERS b) letters c) month.name d) month.abb b) Explain briefly types of data in descriptive statistics. c) Briefly explain any three graphics used for analysis in R. (4+5+6)Unit - II 4. a) Explain the functions of Database Management System. b) Briefly explain Hierarchical model. c) Explain the features of MYSQL. (5+5+5)5. a) Explain the characteristics of Database Management System. b) Explain Network model. c) Write a note on types of DBMS Architecture. (5+5+5)Unit - III 6. a) Explain ORDER BY clause and GROUP BY clause with the help of examples. b) Write a note on Granting and Revoking permissions. c) Explain the steps involved in Processing an SQL Statement. 7. a) Explain the following statements with an example: i) CREATE ii) INSERT b) Explain any five Aggregate functions. c) Write a note on JOIN operation in SQL. Unit - IV 8. a) With syntax and programming example, explain DO statement in SAS. b) How do you import a delimited file into SAS? Explain with an example. Briefly explain SAS architecture with diagram. (5+5+5)9. a) Explain different datatypes for SAS data sets. b) How do you merge data sets in SAS? Explain. c) With syntax and programming example, explain any two forms of IF statement