

**21U475**

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Name: .....

Reg. No: .....

**FOURTH SEMESTER B.Voc. DEGREE EXAMINATION, APRIL 2023**

(Information Technology – Skill Component Course)

**CC21U SDC4 DS13 – DATA SCIENCE WITH R PROGRAMMING**

(2021 Admission - Regular)

Time: 2 Hours

Maximum: 60 Marks

Credit: 3

**PART A**

Answer *all* questions. Each question carries 2 marks.

1. What are the features of R?
2. How do you do comments in R?
3. What are data frames in R?
4. Define Vectorized Operations.
5. What are the different operations on dates and times in R?
6. Explain the working of repeat loop in R.
7. What is ... Argument?
8. Define tapply.
9. Name some functions which can be used for debugging in R.
10. Explain KMean clustering.
11. Define Naïve Bayes classifier.
12. Define Regression.

**(Ceiling: 20 Marks)**

**PART B**

Answer *all* questions. Each question carries 5 marks.

13. What are the advantages and disadvantages of R?
14. What is an array? Explain how would you create an array with example.
15. Explain how do you create connections to a text file in R.
16. Explain the subsetting of list.
17. Give examples of “select” and “filter” functions from “dplyr” package.
18. What is Exploratory data analysis? What are the objectives of exploratory data analysis?
19. Explain different regression analysis techniques.

**(Ceiling: 30 Marks)**

### **PART C**

Answer any *one* question. The question carries 10 marks.

20. Explain loop functions in R.

21. What is clustering? What are the applications of clustering? Explain KMean clustering.

**(1 × 10 = 10 Marks)**

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