(CSE-4-23-2) Roll No. .....

# PAPER ID—21136

## B.Tech. EXAMINATION, 2024

(Fourth Semester)

COMPUTER SCIENCES ENGINEERING

R Programming

*Time :* 3 *Hours* *Maximum Marks :* 70

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Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

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**Note :** Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory. Each question carries equal marks.

1. (i) Briefly explain the importance of dataframe in R.

   (ii) What is the purpose of help() in R ?

   (iii) How is a function called in R ?

   (iv) How are factors created in R ?

   (v) Explain the purpose of polygon( ) function used in R.

   (vi) What do you mean by data casting ?

   (vii) Explain the purpose of setwd( ). 2×7=14

## Unit I

2. Write down the advantages of R language over other programming languages of this category. 14

3. Write and explain the different types of data types supported by R programming language. 14

## Unit II

4. Write the code of a program in R which will accept the height and weight of all students of your class and it will display the details of all students whose height is less than 6 feet and weight is more than 90 kg. **14**

5. Explain the utility of the following built in functions of R with example : **14**

   (a) paste()

   (b) max()

   (c) seq()

   (d) mean().

## Unit III

6. Describe the R functions for reading a matrix or data frame from a file. Also demonstrate with some examples. List the different problems which can be encountered during this process. **14**

7. Write and explain the procedure to create and generate the R-factors and factor levels. **14**

## Unit IV

8. Explain about apply method used in R. Also explain lapply and sapply with suitable examples. **14**

9. Explain, how are multiple curves plotted in the same graph ? Illustrate with suitable example. **14**