R18 Regulation *Subject code: 2P6EB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

B.Tech VI Semester Regular/Supplementary Examinations, June 2021

R PROGRAMMING

(COMPUTER SCIENCE & ENGINEERING)

Maximum Marks: 70 Date:21.06.2022 Duration: 3 hours

Note: 1.This question paper contains two parts A and B.
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10x2M=20 Marks)

1 Differentiate between all() and any().
2 Enumerate on Vectors in R.
3 Find median and mode of following numbers
12,13,11,10,9,11,7,11,10,15,16,11
4 Outline the different matrix operation functions in R.
5 Mention the importance of data frame.
6 List the attributes of Factors in R Language.
7 Mention three math functions in R.
8 What is the nature of the data type of a variable in R.
9 How are reading and writing of files handled?
10 What is the purpose of nchr() function?

Part-B

Answer All the following questions. (10MX 5=50Marks)

11 Explain about variables, constants and data types in R programming with suitable examples. (10)

OR

12 Give a detailed note on Regression Analysis of Exam Grades. (10)

13 How to apply same functions to all rows and columns of a matrix? Explain with example. (10)

OR

14 Write R code to generate first n terms of a Fibonacci series. (10)

15 A. Describe R functions for reading a data frame from a file. (5)
B. Prepare the summary of employee details in a data frame choosing a sample set of employee salary details. (5)

OR

16 Elaborate on the creation and manipulation of Factors in R. (10)

17 A. Write R code to the function by using if else command (5)

$f(x) = x$ if $x<1/2$

$= (1-x)$ if $1/2<x<1$

$= 0$ otherwise

B. Elaborate on Anonymous functions in R. (5)

OR

18 A. Write about user defined functions in R with suitable example? (5)

B. Explain about default values and in return statements in functions? (5)

19 Give a detailed note on the string operations with relevant examples. (10)

OR

20 A. Following are the runs scored by a batsman in 10 consecutive matches: 22,98,13,54,77,61,45,32,19,85. Get this as input and store in a file. (5)

B. Retrieve the runs information from the file and calculate his average run rate (5)