R18 Regulation Subject code: 2P6EB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, July 2024

R PROGRAMMING

(Computer Science and Engineering)

Maximum Marks: 70 Date:26.07.2024 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.
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)		Bloom's Tx	CO
1	Define a list with its syntax.	L1	CO1
2	Define Array with syntax.	L1	CO1
3	Create a byrow() matrix.	L1	CO2
4	Define apply functions in matrix.	L1	CO2
5	What is contingency table?	L1	CO3
6	Write syntax to Extract sub data frame.	L1	CO3
7	What is assignment operator?	L1	CO4
8	Write any two differences between data frame and data table.	L1	CO4
9	Define grep(),regexpr().	L1	CO5
10	Give a syntax for "what" attribute in scan () function.	L1	CO5
	Part-B		
Answer All the following questions. (10M X 5=50Marks)			
11	a) What are the similarities and dissimilarities of Python and R.? [5M] b) Differentiate filtering and subset (). [5M]	L2	CO1
	OR		
12	Explain and differentiate NA and NULL with an example by applying mean () and mode (). [10M]	L2	CO1
13	a) Define a matrix and explain three ways of creating a matrix [5M] b) Write about list and its syntax and explain about accessing list components. [5M]	L2	CO2
	OR		
14	Explain briefly about applying functions to matrix rows and columns. [10M]	L2	CO2
15	Explain the following terms with syntax and examples a) rbind() b)cbind() c)apply(). [10M]	L2	CO3
	OR		

16	a) Explain how to merge two data frames with example. [5M] b) Explain aggregate () and cut () functions. [5M]	L2	CO3
17	a) What is anonymous function and explain replacement function. 5M] b) Write a program to print squares of numbers in a given range by using functions. [5M]	L1	CO4
	OR		
18	a) Explain random number generation statistical distribution functions. [5M] b) Find the minimum and maximum for 14, 23, 16, 20, 0, -17, and 100. [5M]	L2 L3	CO4
19	Write about abline(), points(), legend(), text(), locator(). [10M]	L1	CO5
	OR		
20	Explain String manipulation functions. [10M]	L2	CO5