R20 Regulation *Subject code: 3E7FA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VII Semester Regular/Supplementary Examinations, December 2024

INTRODUCTION TO DATA ANALYTICS

(IT)

Maximum Marks: 70 Date:07.01.2025 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	CO	Bloom Tx level
All the following questions carry equal marks (10x2M=20 Marks)				
1		What function is used to read a .csv file into R? Write its basic syntax.	1	L2
2		What is the primary difference between a data frame and a matrix in R?	1	L2
3		What are the various types of Probability Distribution curves	2	L1
4		What is Normal Distribution Curve and Why it is called as Bell Curve?	2	L1
5		What are the threats of NoSQL?	3	L1
6		Why do we use No SQL?	3	L1
7		What are the different tests for grouped data?	4	L1
8		What is meant by dummy variable?	4	L1
9		How does manufacturing differ from production in terms of systems?	5	L2
10		Write the full form of S.M.A.R. T.	5	L1
		Part-B		
Answer All the following questions. (5X10M=50Marks)				Bloom Tx level
11	a	Discuss the features of R programming Languages. [5M]	1	L2
	b	Explain in detail about dataframe and arrays with example R code. [5M]	1	L2
		OR		
12		Discuss about the time management and work management in detail. [10M]	1	L2
13	a	What is the importance of normal distribution? Describe the properties of normal distribution. [5M]	2	L2
	b	How the random variables are classified? Discuss in brief. [5M]	2	L2
		OR		
14	a	Explain why Central Limit Theorem is called as a heart of the Data Science. [5M]	2	L2
	b	Define probability distribution and explain the difference between discrete and continuous distributions. [5M]	2	L2
15	a	Differentiate SQL and NoSQL. [5M]	3	L2
	b	How do you Read R output in Excel? [5M]	3	L3
		OR		

16	a	How SQL is used in R? [5M]	3	L3
	b	How do you fully integrate R and Excel? [5M]	3	L3
17	a	What is ANOVA? Explain with examples. [5M]	4	L2
	b	Differentiate between simple and multiple regression with examples. [5M]	4	L2
		OR		
18	a	Discuss the dummy variables in the regression analysis with examples. [5M]	4	L2
	b	Describe ordinary least squares method. [5M]	4	L2
19	a	Discuss the need for fitting the model in multiple regression. [5M]	5	L2
	b	Describe the important rules your surveys should follow. [5M]	5	L2
		OR		
20	a	Discuss the different approaches that can be used to gather information about a business. [5M]	5	L2
	b	Describe the various steps involved in Organization Decision making. [5M]	5	L2