



R22 Regulation **Subject code: 405FA**
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech V Semester Regular Examinations, December 2024

FUNDAMENTALS OF DATA SCIENCE
(IT)

Maximum Marks: 60

Date: 08.01.2025

Duration: 3 hours

- Note:**
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 10 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
All the following questions carry equal marks (10X1M=10 Marks)			
1. a)	State Data Science?	1	L1
b)	What is Datafication?	1	L1
c)	What is the Attribute?	2	L1
d)	List Measures of Central Tendency.	2	L1
e)	State Ordered Factor.	3	L2
f)	Define data frame.	3	L1
g)	What are the various mathematical functions in R programming?	4	L1
h)	List Recursive Functions in R Programming.	4	L1
i)	How do you create a box plot?	5	L1
j)	Define Scatter plots.	5	L1
Part-B			
Answer All the following questions. (5X10M=50Marks)		CO	Bloom Tx
2	a) Explain the current landscape of perspectives in detail. [5M] b) Elaborate Statistical Inference. [5M]	1	L2 L6
OR			
3	a) What is the purpose of statistical modeling in data science? Explain. [5M] b) Illustrate the Basic Data Types. [5M]	1	L2 L3
4	a) List and explain various Attributes with suitable examples. [5M] b) Discuss the Measuring of the Central Tendency with respect to Mean and median with the help of an example. [5M]	2	L2 L6
OR			
5	a) Distinguish discrete versus continuous attributes. [5M] b) Explain Graphic Displays of Basic Statistical Descriptions of Data in detail. [5M]	2	L2 L2
6	a) Describe the naming vectors and vector arithmetic with examples. [5M] b) Summarize a Factor and Ordered Factors. [5M]	3	L5 L2

	OR		
7	a) Describe the sub setting of Data Frames. [5M] b) How to convert a list into vector? Explain. [5M]	3	L6 L2
8	a) List and explain Relational Operators with suitable examples. [5M] b) Distinguish Logical Operators and Vectors with an example [5M]	4	L2 L2
	OR		
9	a) Explain loops in R programming with suitable examples. [5M] b) Explain nested functions with examples. [5M]	4	L2 L2
10	a) Write a short not on Pie Chart. [5M] b) Discus about multiple line in graphs. [5M]	5	L2 L6
	OR		
11	Explain Linear Regression Analysis with advantages and disadvantages. [5M]	5	L2