R22 Regulation *Subject code:4P7HA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VII Semester Regular/Supplementary Examinations, October 2026

EXPLORATORY DATA ANALYSIS

(CSE(DS))

Maximum Marks: 60 Date: 30.10.2026 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

All the following questions carry equal marks (10X1M=10 Marks)		Marks	CO	BTL
1.a)	List out core activities of data analysis.	1M	1	1
b)	What is expectation?	1M	1	1
c)	What is specificity?	1M	2	2
d)	List different types of questions.	1M	2	2
e)	What is 'normal model' in data science?	1M	3	2
f)	What is ABC?	1M	3	2
g)	Define model.	1M	4	1
h)	What is linear relationship.	1M	4	1
i)	What is inference question?	1M	5	1
j)	What is sample?	1M	5	1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
2	a) How do you analyze exploratory plots in EDA? b) Why analyst need to establish expectations in data science?	5M 5M	1	2 3
	OR			
3	a) Distinguish between 'collecting information' steps during EDA. b) Justify the statement 'Data analysis is an art' with reference to analysis.	5M 5M	1	3 2
4	a) Illustrate predictive questions with suitable example. b) What are characteristics of good question?	5M 5M	2	2 3
	OR			
5	a) Explain plausible framework in epicycle analysis. b) Illustrate the EDA analysis of 'Fit on Fleek' company with epicycle phases.	5M 5M	2	2 3
6	a) Specify several goals of exploratory data analysis. b) Tabulate the informal check list of things to do in EDA.	5M 5M	3	2 3

	OR			
7	a) Write about reading data using reader library in R. b) Describe about the validate with atleast one external data source and how it is plot.	5M 5M	3	3 2
8	a) Illustrate normal model with a suitable example. b) Exemplify modelling using Gamma distribution.	5M 5M	4	3
	OR			
9	a) Write about establishing nonlinear relationships using loess smoother. b) Describe the mode of decision analysis based on evidence.	5M 5M	4	2 3
10	a) What is meant by sampling variability? Give example. b) List out the metrics to be considered in analyzing the outcomes of Apple music watch usage.	5M 5M	5	2 3
	OR			
11	a) Write about Associational analysis. b) Model penguins' dataset using population.	5M 5M	5	3 2