



TKRCE
Wishes In Character | Information In Excellence

R20 Regulation

Subject code:3P4HC

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech IV Semester Supplementary Examinations, December 2025

DATA VISUALIZATION
(CSE(DS))

Maximum Marks: 70

Date: 29.12.2025

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

All the following questions carry equal marks (10X2M=20 Marks)		Marks	CO	BTL
1	What are computer graphics? .	2M	1	L1
2	Define Data Visualization and its advantages.	2M	1	L1
3	What is spatial Data	2M	2	L1
4	Define Frequency Histogram.	2M	2	L1
5	What are pixelmaps?	2M	3	L1
6	What is a scatter matrix?	2M	3	L1
7	What are the multiple actions that can be performed on a screen space	2M	4	L1
8	What is carpora?	2M	4	L1
9	Define view in Data Visualization?	2M	5	L1
10	What are keys, labels and legends?	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	a) Define Data visualization. Explain the role of Data Visualization in Day-to-day life. b) Explain Data processing in detail with a neat illustration.	5M 5M	1	L2
OR				
12	a) What is Data and its various? Explain different types of Data with differences. b) What is a scatterplot explain its application with an example.	6M 4M	1	L2
13	a) Explain different phenomenon of spatial data b) Explain the process of linear and Quadratic probing in detail	5M 5M	2	L2
OR				
14	a) What are iso surfaces? Explain the process of Direct Volume rendering b) Explain task taxonomy by Data Type by Shneiderman	5M 5M	2	L2
15	a) Explain the keys steps in building useful dashboards. b) Explain scatterplots and scatter matrices in detail with example	4M 6M	3	L2
OR				

16	a) What are the different types of GLYPHS in Data Visualization. b) Explain different ordering strategies in Data Visualization.	5M 5M	3	L2
17	a) What is corpora? b) Detail single and multiple document visualization techniques in brief.	2M 8M	4	L2
OR				
18	a) Explain vector space model with its applications in various sectors. b) Explain i. self-organizing maps ii. Themescapes	6M 4M	4	L2
19	a) List out all the user tasks to perform assessment of visualization technique. b) Explain at least 5 Data characteristics.	5M 5M	5	L2
OR				
20	a) Explain structures for evaluating visualizations. b) Explain in detail any two benchmarking procedures.	5M 5M	5	L2