



PRESIDENCY UNIVERSITY

BENGALURU

Roll No.																			
----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Make Up Examinations - December 2025

Date: 26 - 12- 2025

Time: 9:30am - 12:30pm

School: SOCSE	Program: B.TECH	
Course Code : CSE2026	Course Name : DATA HANDLING AND VISUALIZATION	
Semester: MK	Max Marks: 100	Weightage: 50%

CO - Levels	C01	C02	C03	C04
Marks	24	24	26	26

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks.

10Q x 2M=20M

1	Explain 'data transformation' in brief with example.	2 Marks	L2	C01
2	Differentiate between a bar chart and a histogram.	2 Marks	L2	C01
3	Compare scalar and vector data with example	2 Marks	L2	C02
4	Explain the methods to displaying Hierarchical Structures	2 Marks	L2	C02
5	Describe one challenge faced when visualizing spatial data.	2 Marks	L2	C03
6	List the advantage of using time-series graphs in streaming visualization	2 Marks	L1	C03
7	List the visualization tools to represent temporal data	2 Marks	L1	C03
8	List the major challenges of streaming data	2 Marks	L1	C04
9	Describe one method used in the analysis of streaming data.	2 Marks	L2	C04
10	List the challenges of streaming data	2 Marks	L1	C04

Part B

Answer the Questions

Total 80 Marks.

11.	a.	Define data validation & Illustrate the levels on it.	10 Marks	L1	CO1
	b.	Explain Plotting Using pandas DataFrames, Displaying Figures and Saving Figures in Matplotlib.	10 Marks	L2	

or

12.	a.	Define Data Science? Describe in detail with suitable example.	10 Marks	L1	CO1
	b.	Explain the need of Data Visualization and its importance.	10 Marks	L2	

13.	a.	Explain the Tools and libraries used for visualization with appropriate examples.	10 Marks	L2	CO2
	b.	Describe about the scalar visualization with examples.	10 Marks	L2	

or

14.	a.	Explain about vector visualization techniques with own examples.	10 Marks	L2	CO2
	b.	Explain the different types of mapping color models	10 Marks	L2	

15.	a.	Classify the spatial data visualization technology with their category and explain time series of data visualization with example.	20 Marks	L2	CO3
-----	----	--	----------	----	-----

Or

16.	a.	Explain any four types of multivariate data visualization in detail with diagrams.	20 Marks	L2	CO3
-----	----	--	----------	----	-----

17.	a.	Explain data-stream-management system with a neat architectural diagram. Compare DSMS with DBMS.	10 Marks	L2	CO4
	b.	Use python code to visualize the streaming data by considering random data point in 2D space.	10 Marks	L3	

Or

18.	a.	Explain about the Guidelines for designing successful visualizations.	10 Marks	L2	CO4
	b.	Classify the do's and don'ts of data visualizations in detail	10 Marks	L3	