



# PRESIDENCY UNIVERSITY

BENGALURU

Roll No.														
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## End - Term Examinations – MAY 2025

Date: 27-05-2025

Time: 09:30 am – 12:30 pm

School: SOCSE	Program: B Tech	
Course Code : CSE2026	Course Name :DATA HANDLING AND VISUALIZATION	
Semester: VI	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	State Date preparation in the context of data visualization	2 Marks	L2	C01
2	List any two methods used for plotting graph in python libraries	2 Marks	L2	C01
3	Define: Transfer Function	2 Marks	L2	C02
4	Identify the types of mapping color models available in visualization	2 Marks	L2	C02
5	List the difference between the Raster and Vector data visualization.	2 Marks	L2	C03
6	Outline the python libraries used to analyse and visualize the time series data	2 Marks	L1	C03
7	List out the Multivariate Data Visualization techniques	2 Marks	L1	C03
8	Define : Streaming data	2 Marks	L1	C04
9	List out the Challenges of Stream Data Processing	2 Marks	L2	C04
10	Describe the Stream the sensor data and image data using visualization techniques.	2 Marks	L1	C04

**Part B**  
**Answer the Questions**

**Total 80 Marks.**

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

**or**

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

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

**or**

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

<b>15.</b>	<b>a.</b>	Classify the spatial data visualization technology with their category and explain time series of data visualization with example.	<b>20 Marks</b>	<b>L2</b>	<b>CO 3</b>
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**Or**

<b>16.</b>	<b>a.</b>	Explain any four types of multivariate data visualization in detail with diagrams.	<b>20 Marks</b>	<b>L2</b>	<b>CO 3</b>
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<b>17.</b>	<b>a.</b>	Explain data-stream-management system with a neat architectural diagram. Compare DSMS with DBMS.	<b>10 Marks</b>	<b>L2</b>	<b>CO 4</b>
	<b>b.</b>	Use python code to visualize the streaming data by considering random data point in 2D space.	<b>10 Marks</b>	<b>L3</b>	

**Or**

<b>18.</b>	<b>a.</b>	Explain about the Guidelines for designing successful visualizations.	<b>10 Marks</b>	<b>L2</b>	<b>CO 4</b>
	<b>b.</b>	Classify the do's and don'ts of data visualizations in detail	<b>10 Marks</b>	<b>L3</b>	

**\*\*\*\*\* BEST WISHES \*\*\*\*\***