Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

Mid - Term Examinations – October 2025

Date: 11-10-2025 **Time:** 09.30am to 11.00am

School: SOCSE	**Program:** B.Tech. – CSD	
Course Code :CSD3413	**Course Name:** Data Visualization and Dashboards	
Semester: V	**Max Marks**: 50	**Weightage**: 25%

CO - Levels	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**
Marks	**26**	**24**	**NA**	**NA**	**NA**

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. **5Q x 2M=10M**

1	What is Data Visualization?	**2 Marks**	**L1**	**CO1**
2	Give an example of categorical and numerical data.	**2 Marks**	**L2**	**CO1**
3	Define Data Abstraction.	**2 Marks**	**L1**	**CO1**
4	Define correlation matrix in data visualization.	**2 Marks**	**L1**	**CO2**
5	What is a heatmap?	**2 Marks**	**L1**	**CO2**

Part B

Answer the Questions. **Total Marks 40M**

6.	**a.**	Describe the four levels of analysis for validation in data visualization with suitable examples.	**10 Marks**	**L2**	**CO1**
		Or			
7.	**a.**	List and explain the process of data collection and preparation with examples.	**10 Marks**	**L2**	**CO1**

8.	**a.**	What is task abstraction? Illustrate with an example how task abstraction helps in visualization design.	**10 Marks**	**L2**	**CO1**
		Or			
9.	**a.**	Discuss Data transformation techniques used in visualization. Give examples using Python libraries.	**10 Marks**	**L2**	**CO1**

10.	**a.**	Explain the process of creating static plots like histograms, boxplots, and pair plots with examples in Python.	**10 Marks**	**L2**	**CO2**
		Or			
11.	**a.**	Discuss in detail about vector visualization with examples.	**10 Marks**	**L2**	**CO2**

12.	**a.**	Discuss the role of statistical visualization and explain correlation matrices and regression plots with examples.	**10 Marks**	**L2**	**CO2**
		Or			
13.	**a.**	Describe visualization methods used for trees, graphs, and networks with its applications.	**10 Marks**	**L2**	**CO2**