Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

Mid - Term Examinations – March 2026

Date: 13-03-2026 **Time:** 02:00pm – 03:30pm

School: SOIS	**Program:** BCA Data Science	
Course Code: CSA1203	**Course Name**: Essentials of Data Science	
Semester: II	**Max Marks**:50	**Weightage**:25%

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

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	Define Data Science Process.	**2 Marks**	**L1**	**CO1**
2	List the metrics used for model evaluation.	**2 Marks**	**L1**	**CO1**
3	Compare structured data with quasi-structured data.	**2 Marks**	**L2**	**CO1**
4	Find the mode of the following data: 4, 6, 8, 6, 10, 6, 12	**2 Marks**	**L2**	**CO2**
5	Find the 50th percentile of: 5, 10, 15, 20, 25	**2 Marks**	**L2**	**CO2**

Part B

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

6.	**a.**	Illustrate different facets of data in detail.	**10 Marks**	**L3**	**CO1**
		Or			
7.	**a.**	Demonstrate key aspects of data mining and data warehousing.	**10 Marks**	**L3**	**CO1**

8.	**a.**	Explain Data Science Process in detail.	**10 Marks**	**L2**	**CO1**
		Or			
9.	**a.**	Examine different types of data and variables with examples.	**10 Marks**	**L3**	**CO1**

10.	**a.**	The population of all verbal GRE scores are known to have a standard deviation of 8.5. The UW Psychology department hopes to receive applicants with a verbal GRE score over 210.This year, the mean verbal GRE scores for the 42 applicants was 212.79. Using a value of = 0.05 is this new mean significantly greater than the desired mean of 210.	**10 Marks**	**L2**	**CO2**
		Or			
11.	**a.**	From a statistics standpoint, the standard deviation of a dataset is a measure of the magnitude of deviations between the values of the observations contained in the dataset. From a financial standpoint, the standard deviation can help investors quantify how risky an investment is and determine their minimum required return on the investment. Solve the standard deviation for the following 12 weeks data set.	**10 Marks**	**L2**	**CO2**

Weeks	Expenditure
1	$48.50
2	$87.40
3	$19.98
4	$59.74
5	$40.87
6	$105.51
7	$40.80
8	$23.10
9	$98.10
10	$60.54
11	$64.81
12	$48.01

12.	**a.**	i) A garden contains 39 plants. The following plants were chosen at random, and their heights were recorded in cm: 38, 51, 46, 79, and 57. Calculate their heights' standard deviation. **[5 Marks]** i) Explain mean, median, mode, range, variance, standard deviation, iqr with examples. **[5 Marks]**	**10 Marks**	**L2**	**CO2**
		Or			
13.	**a.**	Illustrate different types of charts with neat diagram.	**10 Marks**	**L2**	**CO2**