Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – December 2025

Date: 10- 12- 2025 **Time:** 1.00pm to 04.00pm

School: SOIS	**Program:** BCA	
Course Code : CSA3007	**Course Name**: Data Analytics and Business Intelligence	
Semester: V	**Max Marks**: 100	**Weightage**: 50%

CO - Levels	**CO1**	**CO2**	**CO3**		
Marks	**32**	**34**	**34**		

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 any two reasons why data analysis is important for businesses.	**2 Marks**	**L1**	**CO1**
2.	What is the function of Matplotlib in Python?	**2 Marks**	**L1**	**CO1**
3.	List any two benefits of data sampling.	**2 Marks**	**L1**	**CO1**
4.	What are the main challenges of data sampling?	**2 Marks**	**L1**	**CO1**
5.	Define Data Quality in the context of data analytics?	**2 Marks**	**L1**	**CO1**
6.	What is data completeness in data analysis?	**2 Marks**	**L1**	**CO1**
7.	Explain the difference between structured, semi-structured, and unstructured data.	**2 Marks**	**L2**	**CO2**
8.	Why is it difficult to manage unstructured data?	**2 Marks**	**L2**	**CO2**
9.	How can *schema integration* combine student and course databases into one view?	**2 Marks**	**L3**	**CO3**
10.	How does *instance integration* resolve different address formats in customer data?	**2 Marks**	**L3**	**CO3**

Part B

Answer the Questions. **Total Marks 80M**

11.	**a.**	Explain the Data Analysis Process in detail with suitable examples.	**10 Marks**	**L1**	**CO 1**
		Or			
12.	**a.**	Describe the different types of Data Analysis. Give examples for each type.	**10 Marks**	**L1**	**CO 1**

13.	**a.**	Explain Data Sampling in detail. Discuss its process, benefits, and challenges.	**10 Marks**	**L1**	**CO 1**
		Or			
14.	**a.**	What is Data Cleaning? Explain the steps involved in the data cleaning process.	**10 Marks**	**L1**	**CO 1**

15.	**a.**	Explain the different sources of data and their roles in data collection	**10 Marks**	**L2**	**CO 2**
		Or			
16.	**a.**	Interpret the importance of Data Quality attributes in analytics with examples.	**10 Marks**	**L2**	**CO 2**

17.	**a.**	Apply appropriate data cleaning techniques to a dataset and explain how the process improves the accuracy and reliability of data analysis.	**10 Marks**	**L3**	**CO 3**
		Or			
18.	**a.**	Apply suitable techniques to handle missing data in a given dataset and explain your approach with examples.	**10 Marks**	**L3**	**CO 3**

19.	**a.**	Explain the different types of digital data with examples. Discuss their characteristics and management techniques.	**20 Marks**	**L2**	**CO 2**
		Or			
20.	**a.**	Discuss the challenges of storing and managing unstructured data and explain the possible solutions.	**20 Marks**	**L2**	**CO 2**

21.	**a.**	Apply solutions to overcome development, technological, and organizational challenges in data integration.	**20 Marks**	**L3**	**CO 3**
		Or			
22.	**a.**	Apply appropriate data integration technologies to design a system that combines data from multiple heterogeneous sources.	**20 Marks**	**L3**	**CO 3**