Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – May/June 2026

Date: 15– 05-2026 **Time:** 09:30am – 12:30pm

School: SOCSE	**Program**: B. Tech	
Course Code : CSD2501	**Course Name:** Predictive Analytics	
Semester: VI	**Max Marks**:100	**Weightage**: 50%

CO - Levels	CO1	CO2	CO3	CO4	CO5	CO6
Marks	24	22	14	14	14	12

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** the purpose of Descriptive Analytics.	**2 Marks**	**L1**	**CO1**
2.	**Identify** any two applications of Prescriptive Analytics.	**2 Marks**	**L1**	**CO1**
3.	**Name** any four predictive models.	**2 Marks**	**L1**	**CO2**
4.	**What** is meant by data collection and preprocessing?	**2 Marks**	**L1**	**CO3**
5.	**Match** the algorithm with its corresponding learning type (supervised or unsupervised).	**2 Marks**	**L1**	**CO3**
6.	**Select** the algorithm that belongs to unsupervised learning.	**2 Marks**	**L1**	**CO4**
7.	**Cite** one example of a supervised learning task.	**2 Marks**	**L1**	**CO4**
8.	**List** the components of an ARMA model.	**2 Marks**	**L1**	**CO5**
9.	**Define** the ARIMA model in time series analysis.	**2 Marks**	**L1**	**CO5**
10.	**Identify** the purpose of the ARFIMA model.	**2 Marks**	**L1**	**CO6**

Part B

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

11.	**a.**	**Summarize** how data flows through a Predictive Analytics model to produce predictions.	**10 Marks**	**L2**	**CO1**
		Or			
12.	**a.**	**Explain** the role of predictive models in the telecom industry.	**10 Marks**	**L2**	**CO1**
13.	**a.**	**Describe** the key consumer engagement principles with examples.	**10 Marks**	**L2**	**CO1**
		Or			
14.	**a.**	**Illustrate** how consumer insight capabilities help in understanding customer behavior.	**10 Marks**	**L3**	**CO1**
15.	**a.**	**Explain** how analytics builds on business intelligence.	**10 Marks**	**L2**	**CO2**
		Or			
16.	**a.**	**Describe** the key consumer engagement principles with examples.	**10 Marks**	**L2**	**CO2**
17.	**a.**	**Interpret** the purpose of cluster models in data analysis.	**10 Marks**	**L3**	**CO2**
		Or			
18.	**a.**	**Summarize** the significance of results generated by an analytic model.	**10 Marks**	**L2**	**CO2**
19.	**a.**	**Compare** user-based and item-based collaborative filtering.	**10 Marks**	**L2**	**CO3**
		Or			
20.	**a.**	**Classify** the types of statistical analysis based on their applications.	**10 Marks**	**L2**	**CO3**
21.	**a.**	**Describe** the concept of multivariate statistical analysis.	**10 Marks**	**L2**	**CO4**
		Or			
22.	**a.**	**Illustrate** how exploratory data analysis helps identify patterns and anomalies.	**10 Marks**	**L2**	**CO4**
23.	**a.**	**Show** how temporal relationships can be modeled using temporal mining techniques.	**10 Marks**	**L3**	**CO5**
		Or			
24.	**a.**	**Examine** the process of building a time series model using ARIMA.	**10 Marks**	**L4**	**CO5**
25.	**a.**	**Analyze** the components (AR, I, MA) of the ARIMA model and their individual roles.	**10 Marks**	**L4**	**CO6**
		Or			
26.	**a.**	**Investigate** the suitability of ARMA, ARIMA, and ARFIMA models for various types of time series data.	**10 Marks**	**L4**	**CO6**