Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

Mid - Term Examinations – MARCH 2026

Date: 10- 03- 2026 **Time:** 09:30am – 11:00am

School: SOIS-PG	**Program:** Master of Computer Applications	
Course Code: CSA4049	**Course Name:** Cyber Digital Twin	
Semester: IV	**Max Marks**: 50	**Weightage**:25%

CO - Levels	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**
Marks	**25**	**25**			

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	Name two technology drivers of Digital Twin.	**2 Marks**	**L1**	**CO1**
2	Recognize the building blocks of Digital Twin and list the purpose.	**2 Marks**	**L1**	**CO1**
3	Apply data modelling to a simple manufacturing scenario.	**2 Marks**	**L3**	**CO2**
4	Use the concept of Digital Thread to explain data continuity.	**2 Marks**	**L3**	**CO2**
5	What is Digital Thread?	**2 Marks**	**L1**	**CO1**

Part B

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

6.	**a.**	Describe the working principle of a Cyber Digital Twin.	**10 Marks**	**L2**	**CO1**
		Or			
7.	**a.**	Interpret how Digital Twin can help in predictive maintenance.	**10 Marks**	**L2**	**CO1**

8.	**a.**	Sketch a basic model management framework for Digital Twin.	**10 Marks**	**L3**	**CO2**
		Or			
9.	**a.**	Teach the steps to implement a simple Digital Twin for monitoring.	**10 Marks**	**L3**	**CO2**

10.	**a.**	Classify Digital Twins based on their functionality.	**10 Marks**	**L2**	**CO1**
		Or			
11.	**a.**	Use Cloud and IoT technologies to explain Digital Twin implementation.	**10 Marks**	**L3**	**CO2**

12.	**a.**	Modify a traditional data collection method using Digital Twin concepts.	**10 Marks**	**L3**	**CO2**
		Or			
13.	**a.**	Develop a simple plan to implement Digital Twin in a small factory.	**10 Marks**	**L3**	**CO2**