Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

Mid - Term Examinations –October 2025

Date: 27-10-2025 **Time:** 11.00am to 12.30pm

School: SOCSE/SOE	**Program:**	
Course Code : CAI3407	**Course Name:** Agentic AI	
Semester: VII	**Max Marks**:50	**Weightage**: 25%

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

Instructions:*Read all questions carefully and answer accordingly.*

(i) 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	List any two advantages of Agentic AI systems.	**2 Marks**	**L1**	**CO1**
2	What is the purpose of the OpenAI API in building agentic systems?	**2 Marks**	**L2**	**CO1**
3	Give one example of a task that benefits from parallel processing.	**2 Marks**	**L3**	**CO1**
4	Illustrate the use of agents and tasks in a CrewAI workflow.	**2 Marks**	**L3**	**CO2**
5	Compare single-agent and multi-agent architectures.	**2 Marks**	**L2**	**CO2**

Part B

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

6.	**a.**	Explain the concept of Agentic AI and illustrate how multi-step LLM workflows enable autonomous decision-making in real-world applications.	**10 Marks**	**L3**	**CO1**
	b.	Illustrate how to set up a complete development environment for building agentic systems, including Git, Cursor IDE, and API integration. Why is each component important?	**10 Marks**	**L3**	**CO1**
		Or			
7.	**a.**	Interpret the principles of prompt engineering for achieving tool-based autonomy. How can effective prompts enhance agent performance?	**10 Marks**	**L3**	**CO1**
	b.	Demonstrate how asynchronous programming in Python can improve the efficiency of LLM-based systems. Include code examples.	**10 Marks**	**L3**	**CO1**

8.	**a.**	Demonstrate the major components of CrewAI such as agents, tasks, tools, processes, and memory.	**10 Marks**	**L3**	**CO2**
	b.	Apply the principles of CrewAI to design a workflow for a finance-based multi-agent system.	**10 Marks**	**L3**	**CO2**
		Or			
9.	**a.**	Examine the interaction between agents, tasks, and tools in CrewAI during a complex process execution.	**10 Marks**	**L3**	**CO2**
	b.	Sketch a conceptual model of a multi-agent CrewAI-based system for managing energy grids, detailing the roles of agents, message passing, and collaboration mechanisms.	**10 Marks**	**L3**	**CO2**