RV College of Engineering®
Mysore Road, RV Vidyaniketan Post,
Bengaluru - 560059, Karnataka, India

Department of Artificial Intelligence and Machine Learning

Date: 13.01.2026	**Test – 3**	**Max. Marks: 10 + 50**
Semester: VII	**UG**	**Duration: 2 Hrs.**
Course Title: Agentic Artificial Intelligence		**Course Code: AI373TA**

PART A

S. No	Questions	M	BT	CO
1	A customer uses an intelligent hotel booking assistant to reserve accommodation for an upcoming trip. The booking process follows a strict sequential flow, where each step depends on the successful completion of the previous one. Illustrate Sequential Processing involved in Hotel Booking.	2	3	2
2	What do you mean by Workflow optimization in Agentic Systems?	2	1	1
3	A large e-commerce platform deploys an intelligent agent to manage customer interactions, inventory updates, and order recommendations in real time. The agent maintains internal state models and environment representations to adapt its behavior based on user activity, system load, and external changes such as supply delays. To ensure reliable operation, the system continuously monitors several indicators. Identify the key performance metrics/ indicators used to measure the effectiveness of the system.	2	2	2
4	Demonstrates how an intelligent agent handles events that affect a travel booking's state.	2	3	3
5	What are the uses of System prompts in Agentic Applications.	2	4	1

PART B

S. No	Questions	M	BTL	CO
1a.	Design and discuss the coordinator-worker-delegator (CWD) model for the travel planner.	7	4	1
1b.	Differentiate Short-term and Long-term memory.	3	2	1
2a.	Summarize the Key principles of the CWD model.	6	2	1
2b.	Write a Crew AI snippet to illustrate the functionality of core travel worker agents in the CWD model.	4	3	3
3a.	In a multi-agent system designed using the Coordinator–Worker–Delegator (CWD) model, each agent is assigned a specific role along with a contextual backstory that defines its responsibilities, decision boundaries, and interaction style. This design enables agents to collaborate effectively while maintaining clear goals and operational consistency. Based on this scenario, explain how the combination of agent role and backstory enhances the effectiveness of agents in a CWD-based multi-agent system.	6	4	2
3b.	Illustrate Role-based agents within the CWD model for travel planner.	4	3	2

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4a.	An autonomous warehouse agent is responsible for managing inventory movement and order fulfilment. Its objective is to maximize throughput while ensuring worker safety and minimizing operational costs. The agent dynamically assigns picking tasks, adapts routes when congestion occurs, and reallocates resources during equipment failures. Discuss how clearly defined objectives act as the basis for shaping an agent's functionality.	6	3	2
4b.	Discuss Instruction formatting with an example.	4	3	2
5a.	Explain Contextual awareness within an intelligent agentic system	6	2	1
5b.	Discuss the role of Environmental modeling in intelligent agent design.	4	2	1