CRM08	Rev 1.16	AI	07/04/25

CONTINUOUS INTERNAL EVALUATION - 1

Dept: AI	Sem / Div: 4	Sub: Artificial Intelligence	S Code: BAD402
Date:15/04/25	Time: 3:00-4:30	Max Marks: 50	Elective:N

Note: Answer any 2 full questions, choosing one full question from each part.

QN		Questions	Marks	RBT	CO's
		PART A			
1	a	Outline the definition of Artificial Intelligence organized into 4 categories. Explain how the multiple disciplines lead to the foundation of Artificial Intelligence.	8	L2	CO1
	b	Define: (i) An Agent (ii) PEAS Description (iii) Good Behaviour: Rationality Draw the block diagram how the agent interacts with the environment through Sensors and Actuators.	10	L2	CO1
	c	The agent is interested in whether the adjacent squares [1,2], [2,2], and [3,1] contain pits. Illustrate the concept of Logic by taking 8 possible models.	7	L3	CO3
		OR			
2	a	Write a function code for a Table Driven Agent that is invoked for each new precept and Compare the differences between: Model-based reflex agents and Utility-based agents.	8	L2	CO1
	b	Identify the PEAS description of Part Picking Robot also Describe the properties of Task Environments (Any 6).	10	L2	CO1
	c	Interpret the Propositional Logic syntax and semantics	7	L3	CO3

		using the truth table.			
		PART B			
3	a	Compare the General Tree Search and Graph Search Algorithms.	8	L2	CO2
	b	Discuss the differences between Breadth First Search, Depth First Search and Depth-Limited Search along with an example.	10	L2	CO2
	c	Illustrate the A* search algorithm by taking the goal state as Bucharest with an example.	7	L3	CO3
		OR			
4	a	Explain Goal Formulation and Problem Formulation with examples.	8	L2	CO2
	b	Discuss briefly the example problems that uses Problem Solving Methods.	10	L2	CO2
	c	Show the sequence of a Knowlege Based Agent, given a percept and the agent adds it to the Knowledge Base. Make use of TELL, ASK and TELL mechanism.	7	L3	CO3

Prepared by: Prof. Akshaya D. Shetty