MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AN AUTONOMOUS INSTITUTION)
(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)
Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section2(f) & 12(B)of the UGC act,1956

III B.Tech I Sem Regular End Examination, December 2022
Artificial Intelligence
(CSI/IT)

Time: 3 Hours.   **Max. Marks: 70**

Note: 1. Question paper consists: Part-A and Part-B.
2. In Part – A, answer all questions which carries 20 marks.
3. In Part – B, answer any one question from each unit.
Each question carries 10 marks and may have a, b as sub questions.

PART- A
                                                  (10*2 Marks = 20 Marks)

1.	a)	Define Problem solving Agent	2M	CO1	BL1
	b)	Brief History of AI.	2M	CO1	BL1
	c)	What is Heuristic Function?	2M	CO2	BL1
	d)	What is pruning?	2M	CO2	BL1
	e)	What is Knowledge-Based Agent?	2M	CO3	BL1
	f)	Define First-Order Logic	2M	CO3	BL1
	g)	What is Indexing in knowledge base?	2M	CO4	BL1
	h)	Write about expert Systems.	2M	CO4	BL1
	i)	Define Simple Planning Agent.	2M	CO5	BL1
	j)	What is use of Practical Planning?	2M	CO5	BL1

PART- B
                                                  (10*5 Marks = 50 Marks)

2	a)	What is agent? Draw the diagram how an agent interacts with environment.	5M	CO1	BL1
	b)	What is the structure of Intelligent Agents? Explain in brief about them	5M	CO1	BL4

OR

3	a)	Give a brief note on Iterative deepening Depth-First search with examples	5M	CO1	BL1
	b)	Write about Bidirectional search wit example.	5M	CO1	BL1

4	a)	Write an algorithm for MINIMAX in game theory.	5M	CO2	BL3
	b)	Write about A* Memory Bounded Search Algorithm	5M	CO2	BL3

OR

5	a)	How could a chance based game have an element of skill?	5M	CO2	BL1
	b)	Explain Perfect Decisions in Two-Person Games.	5M	CO2	BL4
6	a)	Why Prepositional Logic is called very simple logic Explain.	5M	CO3	BL4
	b)	Explain Knowledge Engineering in First order logic.	5M	CO3	BL4

OR

7	a)	Explain in detail the Agent for the Wumpus World	5M	CO3	BL4
	b)	Explain Extensions and Notational Variations of First-Order Logic in Artificial intelligence	5M	CO3	BL4
8	a)	Which is a refutation complete inference procedure for propositional logic?	5M	CO4	BL1
	b)	Explain the procedure to prove The Completeness of the Resolution Process.	5M	CO4	BL4

OR

9	a)	Write about Logical Reasoning Systems in detail	5M	CO4	BL1
	b)	Write about Forward-Chaining Production Systems	5M	CO4	BL1
10	a)	What is a planning agent explain types of planning?	5M	CO5	BL1
	b)	Explain the Basic Representations for Planning	5M	CO5	BL4

OR

11	a)	Explain Planning with Hierarchical Decomposition Models	5M	CO5	BL4
	b)	Write about Analysis of partial order planning.	5M	CO5	BL1

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CO - Course Outcome   **BL - Blooms Taxonomy Levels**