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

II B.Tech II Sem Regular End Examination, July 2022
Artificial Intelligence
(CSM)

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)	What is the need of AI?	2M	CO1	BL1
	b)	What is Blind Search?	2M	CO1	BL1
	c)	Define Heuristic Function?	2M	CO2	BL1
	d)	Write the properties of Search algorithms?	2M	CO2	BL1
	e)	Write about the representation of knowledge base for Wumpus world?	2M	CO3	BL1
	f)	What is Deductive Reasoning?	2M	CO3	BL1
	g)	Define Quantifier?	2M	CO4	BL1
	h)	What is Semantic Network?	2M	CO4	BL1
	i)	Write about Resource constraint?	2M	CO5	BL1
	j)	How do you represent an Action in Planning?	2M	CO5	BL1

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

2	a)	Explain Bi-directional search?	5M	CO1	BL4
	b)	Explain Iterative Deepening Depth First search?	5M	CO1	BL4

OR

3		What is an Intelligent agent? Explain various agents in detail?	10M	CO1	BL4

4	a)	Explain Best-First Search method?	5M	CO2	BL4
	b)	Write about Alpha-Beta Pruning method?	5M	CO2	BL1

OR

5		Explain about adversal search in game playing.	10M	CO2	BL4

6	a)	Explain knowledge base representation in reasoning?	5M	CO3	BL4
	b)	Write about the properties of good and bad knowledge bases?	5M	CO3	BL1

<div align="center">OR</div>

7	What is Knowledge Engineering? Explain its process in detail?	10M	CO3	BL4

8	a)	Explain various types of Inference Rules? Explain Universal and Existential quantifiers?	5M	CO4	BL4
	b)	Define Unification? Write the conditions for Unification and algorithm for it?	5M	CO4	BL1

<div align="center">OR</div>

9	Write about Forward Chaining? Differentiate Forward and Backward chaining?	10M	CO4	BL1

10	a)	Explain various representations of Planning?	5M	CO5	BL4
	b)	Explain Pratial Planners?	5M	CO5	BL4

<div align="center">OR</div>

11	Write about Partial-Order planning Algorithm? Explain in detail?	10M	CO5	BL4

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