Code No: P18CST10
HALL TICKET NUMBER

PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE
(AUTONOMOUS)
III B.TECH I SEMESTER END SUPPLEMENTARY EXAMINATIONS, MARCH/APRIL – 2023
ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
(CSE Branch)

Time: 3 hours   Max. Marks: 60

Note: Question Paper consists of Two parts (Part-A and Part-B)
PART-A
Answer all the questions in Part-A (5X2=10M)

Q.No.		Questions	Marks	CO	KL
1.	a)	List the characteristics of intelligent agent.	[2M]	1	1
	b)	Mention the criteria's for the evaluation of search strategy	[2M]	2	1
	c)	What are the limitations in using propositional logic to represent the knowledge base?	[2M]	3	1
	d)	Explain Linear regression?	[2M]	4	1
	e)	Explain supervised learning?	[2M]	5	1

PART-B
Answer One Question from each UNIT (5X10=50M)

Q.No.		Questions	Marks	CO	KL
		UNIT-I			
2.	a)	List the applications of AI	[5M]	1	1
	b)	Explain the basic kinds of agent program?	[5M]	1	1
		OR			
3.		Using AI Techniques explain the approaches to solve the Tic-Tac-Toe game?	[10M]	1	2
		UNIT-II			
4.		Enumerate Classical "Water jug Problem". Describe the state space for this problem and give the solution.	[10M]	2	3
		OR			
5.		Define the heuristic search. Explain the Hill Climbing algorithm with the help of an example.	[10M]	2	2
		UNIT-III			
6.		Illustrate the use of predicate logic to represent the knowledge with suitable example.	[10M]	3	2
		OR			
7.		Illustrate frames? How do they differ from semantic nets?	[10M]	3	2
		UNIT-IV			
8.		What is the Support Vector Machine? Explain the working of a SVM	[10M]	4	2
		OR			
9.		Explain the K-NN algorithm?	[10M]	4	2
		UNIT-V			
10.		Discuss Bayesian Network in detail?	[10M]	5	2
		OR			
11.		Explain Back propagation algorithm and why it is required?	[10M]	5	2

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