PVP 20

Code: 20CS4501D

III B.Tech - I Semester – Regular / Supplementary Examinations
NOVEMBER 2023

ARTIFICIAL INTELLIGENCE
(COMPUTER SCIENCE & ENGINEERING)

Duration: 3 hours Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.
2. All parts of Question must be answered in one place.

BL – Blooms Level CO – Course Outcome

			BL	CO	Max. Marks
		UNIT-I			
1	a)	Define Intelligent Agent. Illustrate the characteristics of Intelligent Agent.	L2	CO1	7 M
	b)	Illustrate about the structure of agent.	L2	CO2	7 M
		OR			
2	a)	Explain in detail the applications of Artificial Intelligence.	L2	CO1	7 M
	b)	Discuss about Goal-based agents and utility based agents.	L2	CO2	7 M
		UNIT-II			
3	a)	Define uniformed search. What is breadth first search Illustrate with an example?	L2	CO3	7 M
	b)	Explain about hill climbing heuristic search technique.	L2	CO3	7 M

		OR			
4	a)	Take your own example and apply A* algorithm.	L3	CO3	7 M
	b)	Define problem solving agents and list its algorithms.	L2	CO1	7 M
		UNIT-III			
5	a)	Discuss the forward-chaining algorithm for propositional logic.	L2	CO2	7 M
	b)	Summarize the desired properties and representation of knowledge.	L2	CO2	7 M
		OR			
6	a)	Explain in detail about knowledge based agents.	L2	CO2	7 M
	b)	Discuss syntax and semantics in first order logic in detail.	L2	CO2	7 M
		UNIT-IV			
7	a)	What is the role of planning in artificial intelligence? Explain with an example.	L4	CO4	7 M
	b)	Discuss in detail about hierarchical planning.	L2	CO3	7 M
		OR			
8		Why multi agent planning needed? Explain this technique with an example.	L4	CO4	14 M
		UNIT-V			
9	a)	What is Reinforcement learning? Discuss its applications.	L2	CO1	7 M

	b)	What is learning? Explain about artificial neural networks.	L2	CO1	7 M
		OR			
10	a)	Relate the concept of logical formulation of learning with suitable example.	L4	CO4	7 M
	b)	Summarize the concept of Inductive Logic Programming.	L2	CO1	7 M