18AI55

USN

Fifth Semester B.E. Degree Examination, June/July 2023
Principles of Artificial Intelligence

Time: 3 hrs.   Max. Marks: 100

Note: Answer any FIVE full questions, choosing one full question from each module.

Module-1

1	a. Explain brief history of artificial intelligence.	(10 Marks)
	b. Explain Intelligent systems in AI.	(10 Marks)

OR

2	a. Explain current trends and development of AI.	(10 Marks)
	b. Describe water Jug problem with production rules and give solution.	(10 Marks)

Module-2

3	a. Explain two player perfect information games.	(10 Marks)
	b. Explain alphabeta pruning with example.	(10 Marks)

OR

4	a. Explain Iterative deepeing.	(05 Marks)
	b. Write the algorithm for MINIMAX.	(10 Marks)
	c. List the properties of α - β pruning.	(05 Marks)

Module-3

5	a. Write the algorithm for conversion to clause form with example.	(10 Marks)
	b. Write the propositional resolution algorithm with example.	(10 Marks)

OR

6	a. Write the resolution algorithm for predicate logic with example.	(10 Marks)
	b. Explain semantic tableau system.	(10 Marks)

Module-4

7	a. Explain non linear planning strategies.	(10 Marks)
	b. Explain block world problem.	(10 Marks)

OR

8	a. Explain the types of planning system.	(10 Marks)
	b. Explain means end analysis with example.	(10 Marks)

Module-5

9	a. Explain the property inheritance algorithm.	(08 Marks)
	b. Explain simple relation knowledge and procedural knowledge using example.	(12 Marks)

OR

10	a. Explain 4 approaches to knowledge representation.	(12 Marks)
	b. Explain expert systems.	(08 Marks)

* * * * *