

Q. No.	Questions	CO	Bloom Taxonomy Category	Marks	
Section I					
1	Short Answer type questions			4 x 5 = 20	
a	Define the following terminologies :- i. Turing Test ii. Agent iii. Environment or Explain Simple Reflex Agents and Goal Based Agents with the help of suitable diagrams.	CO1	Remember		
b	State the difference between generate-and-test and hill-climbing techniques. or Briefly explain Alpha-Beta pruning in adversarial search.	CO2	Understand		
c	Explain the role of Bayesian networks in statistical reasoning. or Write a short note on fuzzy logic.	CO3	Understand		
d	What is a planning graph? Briefly describe its role in planning algorithms. or Describe the concept of multi-agent planning.	CO4	Understand		
Section II					
Long Answer type questions					
2	Describe the algorithms used for planning in non-deterministic domains. or Explain the key components of knowledge representation in AI.	CO4	Understand		3 x 10 = 30
3	Describe Conjunctive Normal Form and Disjunctive Normal Form? Convert $((A \rightarrow B) \wedge A) \rightarrow B$ into CNF and DNF. or Differentiate between Breadth first search and Depth First search algorithm with an example.	CO2	Apply		
4	What is Robotics? Explain the concept of robot along with its major components. or Describe the structure of agents and how they interact with their environments.	CO1	Analyze		
5	a) State and prove Modus Ponens and Modus Tollens. (8 marks) b) List the rules of inference for propositional logic. Consider the following facts and construct a step-by-step proof by resolution of the statement: "God Does not exist". (12 marks) i) If the bible is literally true then the earth was created in six days. ii) If the earth was created in six days then carbon dating techniques are useless and scientists are frauds. iii) Scientists are not frauds. iv) The bible is literally true. or Analyze the role of knowledge representation, covering categories, objects, events, and reasoning with default information in artificial intelligence.	CO4	Analyze		
Section III					
Application based questions					
5	a) State and prove Modus Ponens and Modus Tollens. (8 marks) b) List the rules of inference for propositional logic. Consider the following facts and construct a step-by-step proof by resolution of the statement: "God Does not exist". (12 marks) i) If the bible is literally true then the earth was created in six days. ii) If the earth was created in six days then carbon dating techniques are useless and scientists are frauds. iii) Scientists are not frauds. iv) The bible is literally true. or Analyze the role of knowledge representation, covering categories, objects, events, and reasoning with default information in artificial intelligence.	CO4	Analyze	1 x 20 = 20	
		CO4	Create		

COURSE OUTCOME

At the end the course the candidate will able to

CO1: To understand the basic idea of artificial intelligence and its application areas.

CO2: To apply basic principles of AI in solutions that requires problem solving, inference, perception, knowledge representation, and learning.

CO3: To demonstrate awareness and a fundamental understanding of various applications of AI techniques.

CO4: To understand about Logic programming and about Reasoning related to AI.

CO5: To know about the different representational techniques in AI.