



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

(Accredited by NAAC With "A" Grade)

Bharathidasan University, Tiruchirappalli - 23

Date: 22-04-2025

Time: 3 Hours

Program: M.C.A.(Computer Applications)

Course Code:

I SEMESTER

ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

SECTION-A (2 Marks Each)

1. Explain the Following: a) Elements of FOL b) Syntax of prolog?
 2. what is Ontological Engineering?
 3. what is Forward chaining? Explain with example
 4. List any 2 paramatric models
 5. Define forward chaining
 6. Mention any two application of AI in computer vision
 7. What is rational Agent
 8. What is resolution?
 9. What is unification in first order logic
 10. Differentiate supervised with unsupervised learning?
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SECTION-B (5 Marks Each)

1. a) With neat diagram deliberate the structure of agent and explain goal based agent ?
b) Distinguish between reflex and model based agent
 2. a) Clarify depth first search algorithm with example and complexity?
b) Describe the process of learning with decission tree with example
 3. a) How AI used in NLP
b) Is chess a stochastic game ? justify
 4. a) Mention the three components through which Intelligent in AI words?
b) What is agent and Rational agent in AI?
 5. a) Discuss the steps involved in K means clustering?
b) Explain backward with example
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SECTION-C (10 Marks Each)

1. a) Explain game playing in AI
b) Foundation of artificial intelligence and discuss different types of environment and agent can operate in
2. a) Explain text processing in text classification
b) What is convolutional neural network (CNN) ?
3. a) How does machine learning differ from traditional programming?
b) Discuss hill climbing algorithm and problems with hill climbing