

2111040102010002
EXAMINATION NOVEMBER 2024 (ATKT EXAM)
MASTER OF COMPUTER APPLICATION
(SECOND SEMESTER)
ARTIFICIAL INTELLIGENCE (COURSE-201) - LEVEL 1

[Time: As Per Schedule]

[Max. Marks: 70]

Instructions:

- 1. Fill up strictly the following details on your answer book**
 - a. Name of the Examination : **MASTER OF COMPUTER APPLICATION (SECOND SEMESTER)**
 - b. Name of the Subject : **ARTIFICIAL INTELLIGENCE (COURSE-201) - LEVEL 1**
 - c. Subject Code No : **2111040102010002**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

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Student's Signature

- Q.1**
- | | |
|---|----------|
| A. Describe various applications of AI. | 6 |
| B. What do you understand by FOPL? | 5 |
| C. Explain satisfiable and valid statement. | 3 |

OR

- | | |
|-----------------------------|----------|
| C. Explain inference rules. | 3 |
|-----------------------------|----------|

- Q.2**
- | | |
|--|----------|
| A. Explain Breadth first search algorithm in detail. | 6 |
|--|----------|

OR

- | | |
|---|----------|
| A. Explain initial state, goal state and cost function in detail. | 6 |
| B. Explain A*search algorithm in detail. | 5 |
| C. Explain MiniMax algorithm in brief. | 3 |

- Q.3**
- | | |
|--|----------|
| A. Differentiate between informed and uninformed search. Also explain divide and conquer method. | 6 |
| B. Differentiate Conditional probability and joint probability. | 5 |
| C. What is heuristics? | 3 |

Q.4 A. Explain iterative deepening search in detail. **6**

OR

A. Explain Performance of learning model in detail with relevant example. **6**

B. What is the difference between supervised and unsupervised learning? **5**

C. What is Knowledge Gathering? **3**

Q.5 A. Explain depth first search algorithm in detail. **5**

OR

A. What are the applications of AI in Natural Language Processing? **5**

B. Describe the architecture of an expert system. **6**

C. What are Expert Systems? **3**
