

Code No.: AI401PC

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**CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS**

**II-B.TECH-II-Semester End Examinations (Supply) - February- 2023
ARTIFICIAL INTELLIGENCE
(CSM)**

[Time: 3 Hours]

[Max. Marks: 70]

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A

(20 Marks)

1. a) Identify the need for Agents. [2M]
- b) Define the term "Breadth – First Search". [2M]
- c) Interpret the functionalities of Stochastic Search Method. [2M]
- d) Categorize the Quantifiers in First-Order Logic. [2M]
- e) Summarize the basic probability notion. [2M]
- f) Identify the methods to represent knowledge in an Uncertain Domain. [2M]
- g) Analyze the need for Learning. [2M]
- h) Recall the need for Winston's Learning Program. [2M]
- i) Identify the characteristic features of Expert Systems. [2M]
- j) List the components of Knowledge Base. [2M]

PART-B

(50 Marks)

2. Examine the features of Depth-First Search and Depth-First with Iterative Deepening Search methods. [10M]
- OR**
3. Identify and explain the features of Environments from the point of view of an Agent. [10M]
4. Explain the features of Minimax Search Algorithm with a suitable example. [10M]
- OR**
5. Distinguish the process of Forward Chaining and Backward Chaining Algorithm with a suitable example. [10M]
6. Illustrate the various Knowledge Representation Schemes with suitable example. [10M]
- OR**
7. Outline the features of Bayes' Rule with example. [10M]
8. Interpret the process of "Learning from Examples" in detail. [10M]
- OR**
9. Explain Decision Trees with an example. [10M]
10. Infer the steps regarding the Development of Expert Systems. [10M]
- OR**
11. Summarize the suggestions about the Knowledge Acquisition Process in the Expert Systems. [10M]
