

Code No.: AD502PC

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CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
III-B.TECH-I-Semester End Examinations (Regular) - January- 2024
INTRODUCTION TO ARTIFICIAL INTELLIGENCE
(AI&DS)

[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.

PART-A

(20 Marks)

1. a) List the applications of AI. [2M]
- b) Define Breadth First Search. [2M]
- c) Define Backward Reasoning. [2M]
- d) Define Minimax Algorithm. [2M]
- e) Define the syntactic elements of first Order logic. [2M]
- f) Define Forward Chaining. [2M]
- g) What is a Plan? [2M]
- h) Define State Space search. [2M]
- i) Define Probabilistic reasoning. [2M]
- j) List the applications of Baye 's theorem. [2M]

PART-B

(50 Marks)

2. What is Greedy Best First Search? Explain with an example the different stages of Greedy Best First search. [10M]
- OR**
3. Explain about Hill Climbing Search with an example. [10M]
4. Give a brief note on minimax and alpha-beta pruning with examples and a neat sketch. [10M]
- OR**
5. Explain about Horn and definite clauses. [10M]
6. Give a detailed note on models for first-order logic. [10M]
- OR**
7. Explain the types of knowledge. [10M]
8. Explain about Classical Planning Approaches. [10M]
- OR**
9. Explain about Hierarchical Planning. [10M]
10. Explain about Bayes theorem in AI. [10M]
- OR**
11. Explain about Relational and First-order Probability. [10M]
