CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
III–B.TECH–I–Semester End Examinations (Supply) - June- 2024
ARTIFICIAL INTELLIGENCE
(Common for CSE, IT)

[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) What are the problems underlying with AI?   [2M]
   b) Explain Backtracking.   [2M]
   c) State Bayes theorem.   [2M]
   d) Define Logic.   [2M]
   e) Explain Uncertainty.   [2M]
   f) Explain Non-monotonic Reasoning.   [2M]
   g) Where knowledge Representation can be used?   [2M]
   h) Explain Rote Learning.   [2M]
   i) What are the applications of Expert systems?   [2M]
   j) Address the various problems faced in Expert systems?   [2M]

PART-B   (50 Marks)

2. Explain the following uninformed search strategies with examples.   [10M]
   (i) Breadth First Search. (ii) Depth First Search.

OR

3. Explain the following local search strategies with examples.   [10M]
   (i) Hill climbing (ii) Generic Best-First.

4. Give a brief note on Alpha-Beta Pruning.   [10M]

OR

5. Compare and contrast Forward Chaining and Backward Chaining with examples in   [10M]
   detail.

6. Discuss the Bayesian Belief Networks with an example.   [10M]

OR

7. Explain How to represent Knowledge in uncertain domains.   [10M]

8. Discuss in detail about Winston's learning Program.   [10M]

OR

9. Define and Explain "Learning". Describe in detail, the range of activities covered by [10M]
   the concept "Learning". Justify the statement-that "learning is the most important
   characteristics of intelligence".

10. What are Expert System Shells, and how do they facilitate the development of expert   [10M]
    systems? Provide examples of popular expert system shells and their functionalities.

OR

11. Explain Knowledge Acquisition in detail.   [10M]

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