CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
II–B.TECH–II–Semester End Examinations (Regular) - June- 2022
ARTIFICIAL INTELLIGENCE
(CSM)

[Time: 3 Hours]   [Max. Marks: 70]

Note: 1. Answer *any FIVE* questions. Each question carries 14 marks.
2. All questions carry equal marks.
3. Illustrate your answers with NEAT sketches wherever necessary.

                                                                    5X14=70

1. a) What is Heuristic Search? Explain the A* Algorithm. [7M]
   b) Discuss the characteristics of AI problem. Can Towers of Hanoi problem be considered as AI problem? Justify your answer with suitable discussions. [7M]

2. a) Explain BFS (Breadth First Search) and DFS (Depth First Search) with suitable example. [7M]
   b) Explain the Knowledge Representation using Semantic Network. [7M]

3. a) Discuss the Bayesian Networks. [7M]
   b) List and explain the Knowledge Representation Issues in detail. [7M]

4. a) Define Learning? What are Learning problems? Explain in brief. [7M]
   b) Explain the Winston's Learning program. [7M]

5. a) Discuss about the Expert System shell in LISP. [7M]
   b) List and discuss any two Expert Systems in detail with examples. [7M]

6. a) Explain about Defining the Problem as a State Space Search. [7M]
   b) What do you mean by Game playing in Artificial Intelligence? Explain. [7M]

7. a) Give a brief note on Propositional Logic. [7M]
   b) Discuss the First Order Logic in detail. [7M]

8. a) Explain the Non-Monotonic Reasoning. [7M]
   b) What is Knowledge and how to represent the Knowledge? Explain Forward Reasoning and Backward Reasoning. [7M]

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