Code No.: AI401PC   R20   H.T.No. | | | 8 | R | | | | | |

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
II–B.TECH–II–Semester End Examinations (Regular) - August- 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)	Explain BFS (Breadth First Search) with example.	[2M]
b)	Define Heuristic search and Heuristic function.	[2M]
c)	What is Stochastic search?	[2M]
d)	Explain Universal Quantifiers with example.	[2M]
e)	Differentiate between Declarative Knowledge and Procedural Knowledge.	[2M]
f)	Define Bayes rule.	[2M]
g)	List out the examples of Learning in problem solving.	[2M]
h)	What is Winston Learning problem?	[2M]
i)	Define Expert System.	[2M]
j)	What is Knowledge Acquisition?	[2M]

PART-B   (50 Marks)

2. Explain about Environment of an Agent with example?   10M

OR

3. Explain A* search algorithm. Discuss about the admissibility of Best-First A*   10M
Algorithm.

4. Define and Explain about Alpha-Beta Pruning Algorithm and its advantages.   10M

OR

5. Explain briefly about Forward Chaining and Backward Chaining.   10M

6. What is the role of Knowledge in Artificial Intelligence? Explain various techniques   10M
of Knowledge representation.

OR

7. Illustrate about Semantics of Bayesian Networks with example.   10M

8. What is Learning? Explain any one Learning problems with examples.   10M

OR

9. What is Decision Tree? Illustrate with example.   10M

10. Apply Knowledge Acquisition in Expert System with an example.   10M

OR

11. Write any six applications of Expert System.   10M

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