

Roll No. :

Total No. of Questions : 9]

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**B.Tech. (CSE) 6th Semester (Supplementary)
Examination, July-2021
(G Scheme)**

ARTIFICIAL INTELLIGENCE

Paper-PCC-CSE-304-G

Time : Three Hours]

[Maximum Marks : 75

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note :- Question No. 1 is compulsory. Attempt five questions in total by selecting one question from each Unit.

1. (a) Differentiate between informed and uninformed search.
- (b) Write a short note on Semantic Network.
- (c) What do you mean by term Heuristics ?

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(1)

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(d) Explain the term Non-monotonic reasoning.

(e) Write a short note on genetic algorithms. $3 \times 5 = 15$

Unit-I

2. (a) Define term Artificial Intelligence. What are applications of AI in the various fields? Explain its applications.

(b) Explain Hill Climbing strategy with example. What are the problems faced while applying this strategy? 7,8

3. (a) What do you mean by Game playing in AI? 7,8

(b) Explain Alpha-Beta pruning with example. What is the need of pruning a game tree? 7,8

Unit-II

4. (a) Differentiate between propositional logic and predicate logic.

(b) What do you mean by Skolemization? Explain with the help of example. 8,7

5. Explain the various ways of knowledge representation in AI. Also discuss underlying issues. 15

Unit-III

6. (a) Explain how uncertainty is managed in AI.

(b) Explain Dempster shafer theory with the help of example. 5,10

7. (a) Differentiate partial-order plan with total-order plan.

(b) How do we represent states, goals and actions in planning? Explain with example. 7,8

Unit-IV

8. What is an Expert System? Explain its architecture in detail. Also, write its applications in the various domains. 15

9. (a) Explain ANN with its architecture. How artificial Neural networks are similar to biological neural networks?

(b) Explain ANN applications in the various fields. 8,7