

No. of Printed Pages : 03

Roll No.

H-30

B. Tech. EXAMINATION, May 2017

(Eighth Semester)

(Electives) (Main & Re-appear)

EE, EEE

EE-446-B

ARTIFICIAL INTELLIGENCE

Time : 3 Hours]

[Maximum Marks : 100

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

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

(1-03/42) M-H-30

P.T.O.

Unit I

1. (a) State and explain breadth first search. **10**
(b) What is alpha-beta pruning ? Explain in detail. **10**
2. (a) Explain Hill climbing in detail. **10**
(b) Explain Heuristic depth first search in detail. **10**

Unit II

3. (a) Explain Semantic Nets in detail. **10**
(b) Explain rule based deduction system. **10**
4. (a) Explain algorithm for assumption based reasoning in detail. **15**
(b) State Baye's law of probability. **5**

Unit III

5. (a) Explain learning by analogy. **10**
(b) Explain discovery as learning in detail. **10**

6. (a) What are Neural Networks ? Explain learning by neural networks in detail. **10**
(b) What is situational calculus ? Explain planning by situational calculus in detail. **10**

Unit IV

7. (a) What is rule base ? Write algorithm for designing rule base for a simple vehicle braking system. **10**
(b) Explain Knowledge acquisition concept in detail. **10**
8. Write short notes on the following : **10×2=20**
(a) Genetic Algorithm
(b) Expert Systems.