

No. of Printed Pages : 03

Roll No.

F183

B.Tech. EXAMINATION, May 2019

(Sixth Semester)

(B. Scheme) (Main & Re-appear)

(IT)

IT306B

ARTIFICIAL INTELLIGENCE AND EXPERT
SYSTEMS

Time : 3 Hours]

[Maximum Marks : 75

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.

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P.T.O.

Unit I

1. Explain the Simple Hill climbing and Steepest Ascent Hill climbing algorithm. What are the limitations of Hill Climbing ? **15**
2. What is different operation on string ? What a program for breadth first search using PROLOG ? **15**

Unit II

3. Define and describe the difference between knowledge, belief, hypothesis, data and intelligence. Also discuss how you represent a problem using data space technique. **15**
4. (a) Explain semantic networks in detail and make the semantic net for the computer system. **10**
(b) Discuss knowledge representation schemes with examples. **5**

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Unit III

5. Write short notes on the following :
(a) Statistical reasoning
(b) Temporal reasoning. **15**
6. (a) Differential between Boolean and Fuzzy Logic and their applications. **8**
(b) Explain Dempster Shafer Theory in details with suitable example. **7**

Unit IV

7. Explain the use of expert system shells. Explain with neat block diagram what are the different ways to make the expert system effective ? **15**
8. Write short notes on the following :
(a) Rule based system architecture **5**
(b) Natural language processing **5**
(c) AI application of Robotics. **5**

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