Roll No. .... Total Pages : 03

BT-7/M-20 **37154**

EXPERT SYSTEMS
CSE-425N

Time : Three Hours] [Maximum Marks : 75

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

Unit I

1. (a) Compare hill climbing algorithm and best first search techniques. **7**

   (b) What is Minmax strategy for game playing ? Develop an algorithm for Minmax. **8**

2. What is main difference between scripts and frame structures for knowledge representation ? Also write their advantages and limitations. **15**

Unit II

3. (a) Briefly give historical evolution of an expert system. **7**

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(b) Elaborate rule-based architecture of an expert system. **8**

4. (a) Explain, how uncertainty is propagated through a chain of rules during consultations with an expert system ? **7**

(b) Identify and describe two good application areas for an expert system with a medical college and hospital environment. **8**

Unit III

5. Discuss the following expert system development phases :
(a) Problem Identification
(b) Development of prototype
(c) Planning a full stage system. **5,5,5**

6. (a) Elaborate the major problems faced in knowledge acquisition. **8**

(b) How expert system tools help in expert system development ? **7**

Unit IV

7. Discuss the role of the following personals in an expert system development :
(a) User
(b) Knowledge Engineer
(c) System Development personal. **5,5,5**

8. Write notes on the following : **5,5,5**
   (a) Tunning an expert system
   (b) Verifying an expert system
   (c) Validating an expert system