Roll No. ..... Total Pages : 2

BT-7/M-21 47154

EXPERT SYSTEMS

Paper–CSE-425 N

Time allowed : 3 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. (i) Explain Minimax strategy with alpha-beta cutoff ? 7
   (ii) Develop an algorithm for depth-First search technique with an example. 8
2. Differentiate between with examples :
   (i) Declarative frames v/s procedural frames 7
   (ii) Deductive learning and inductive learning 8

UNIT-II

3. (i) Devise an algorithm for acquiring knowledge by using conceptual dependency ? 7
   (ii) Explain role of decision making in the design of an expert system ? 8
4. Write notes on following tools : 5×3 = 15
   (i) Knowledge Engineering Environment (KEE)
   (ii) ART (Automated Reasoning Tool)
   (iii) Knowledge Craft (KC).

UNIT-III

5. Explain and draw the following expert system Architecture :
   (i) Network Architecture 7
   (ii) Blackboard system Architecture. 8
6. Explain the following expert system design stages :
   (i) Interrelation 4
   (ii) identification 4
   (iii) Monitoring 4
   (iv) Simulate. 3

UNIT-IV

7. How uncertainty is propagated through a chain of rules during consolation with an Expert system which is based on MYCIN Architecture ? 15

8. What are the problems that occurs during the planning, design, updation Review and changeover? 15