BT-8/M-19   **38199**

EXPERT SYSTEM

IT-424N

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) Write the algorithm for Breadth First Search and discuss its time and space complexities.

   (b) What are the describe characteristics of a knowledge representation scheme ? Discuss.

2. (a) What is Hill Climimbing Search ? What are its constraints ? Explain.

   (b) Differentiate between declarative and procedural frames using suitabe examples.

Unit II

3. Define Expert System. Write a note on the rule-based architecture of expert system and give a brief overview of its applications.

4. (a) Discuss the factors motivating the development of Expert Systems.
   (b) What are the different stages in Expert System Development ? Explain.

Unit III

5. What are the problems in knowledge elicitation from human experts ? Discuss the different methods of knowledge aqcquisition.

6. (a) What do you understand by Expert System Shell ? Explain.
   (b) What Expert System development in an interative process ? Discuss.

Unit IV

7. What are the challenges in Expert System Development ? Explain.

8. What is the role of domain experts in expert system deveopment ? Explian.