

Roll No. ....

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BT-7/D-22

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## EXPERT SYSTEMS

Paper-PE-CS-D415A

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. (a) Explain the Holistic view of expert systems with the help of some real time examples. 8
- (b) What is meant by knowledge representation? Also explain different types of expert system. 7
2. (a) Which are the features and capabilities that must be there in any tool of expert system? 8
- (b) What are the application benefits of an expert system and different problem areas addressed by it? 7

### Unit-II

3. (a) What is main difference between Scripts and Frame structures for knowledge representation? Also write their advantages and limitations. 8
- (b) What is the role of knowledge engineering in expert system? Why knowledge acquisition is often called a bottleneck of the process of knowledge engineering? 7

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4. Elaborate in detail various stages in expert system development process with diagram. 15

### Unit-III

5. (a) Identify the role of selection of a tool in developing expert system. 8

- (b) What is the main issue in expert system development? What are the methods of developing expert systems? 7

6. (a) How is knowledge acquired in an expert system? Why knowledge acquisition is difficult in an expert system? 8

- (b) What is the correct process sequence of building an expert system? How do you build an expert system efficiently? 7

### Unit-IV

7. What is Domain expert in expert system? Who formulates the Domain expertise into an expert system? 15

8. What are the problems faced in expert systems? Which one is the biggest bottleneck in building an expert system? 15