

Roll No.

Total Pages : 3

BT-8/M-20

38199

EXPERT SYSTEMS

Paper-IT-424-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. (a) What is the difference between Uninformed and Informed search? Write the algorithm of depth first search and discuss its time and space complexities.
- (b) What is First Order Predicate Logic (FOPL)? Discuss the knowledge representation using FOPL.
2. (a) Differentiate between hill climbing and best first search.
- (b) How is the knowledge represented using rules? Explain using suitable examples.

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UNIT-II

3. (a) Define expert system and give a brief overview of its applications.
(b) What do you understand by rule based architecture of Expert system? Explain.
4. (a) What are the different components of Expert system? Discuss.
(b) What do you understand by Knowledge engineering? What are the different sources of knowledge? Explain.

UNIT-III

5. What are the different stages in Expert system development? How is it different from conventional software development? Explain.
6. What are the different tools available for Expert system development? Explain.

UNIT-IV

7. (a) What are the common problems when knowledge is represented using rules? Discuss.
(b) What are the problems in knowledge elicitation from Human experts? Discuss.

8. (a) “Expert knowledge is intuitive and subconscious in nature”. Comment.
- (b) Write a brief note on the difficulties in Expert system development.

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