

Roll No. ....

**67113**

**MCA 3rd Semester (with old Notes)**

**Examination – December, 2016**

**ARTIFICIAL INTELLIGENCE & EXPERT SYSTEM**

Paper : MCA-303

*Time : Three Hours ] [ Maximum Marks : 80*

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

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

**UNIT – I**

1. Differentiate blind search and heuristic search. When does blind search become better than heuristic search ? Also discuss the properties of heuristic search algorithms ?

2. Why is it important that an expert system be able to explain the why and how question related to problem solving ? Discuss the role of inference engine in expert system to solve the problem.

**UNIT – II**

3. Differentiate SDLC and ESDLC. Why formalization is considered as important phase in ESDLC. Explain the functions performed during this phase.
4. What is Truth Maintenance System ? Explain its different types and how TMS is used to deal the uncertainty of knowledge.

**UNIT – III**

5. What are the differences between biological and artificial neurons ? What is the role of back propagation network in ANN ? Discuss with an example.
6. (a) What is fuzzy set ? What is the membership function of a fuzzy set ? Can a fuzzy membership be TRUE and FALSE at the same time ? Illustrate with example.

- (b) Discuss the inference process for fuzzy expert system.

**UNIT – IV**

7. What is matching ? Discuss the role of Backtracking in matching ? How fail and cut predicates are used in backtracking ? Give example also.
8. Explain with examples :
- (a) Compound object
- (b) Recursion
- (c) Dynamic database
- (d) Types and components of list

---

<http://haryanapapers.com>

Whatsapp @ 9300930012

Your old paper & get 10/-

पुराने पेपर्स भेजे और 10 रुपये पायें,

Paytm or Google Pay से