

MASTER OF COMPUTER APPLICATIONS (M.C.A.)
Elective Subject: ARTIFICIAL INTELLIGENCE AND EXPERT SYSTEM

Time: Three hours
Maximum: 75 marks
Passing Minimum : 38 marks
PART A - (5 x 5 = 25 marks)

Answer ALL questions.
All question carry equal marks.

1. (a) Discuss Hill climbing technique.

Or

(b) Explain back tracking technique with example.

2. (a) Discuss alpha-beta pruning with examples.

Or

(b) What are the advantages and disadvantages of declarative knowledge?

3. (a) Write a short not on expert system tools.

Or

(b) Discuss fuzzy sets with examples.

4. (a) Compare expert systems and knowledge based systems.

Or

(b) Write a short note on knowledge refining.

5. (a) Discuss the certainty factors used in MYCIN.

Or

(b) What is Understanding? Discuss.

PART B - (5 x 10 = 50 marks)

Answer any Five questions.
All questions carry equal marks.

6. (a) What are the advantages of production systems?

(b) What are the advantages of heuristic search?

7. (a) With an example of your own explain how predicate calculus can be use d in Answer extraction process.

(b) Write a short note on connective of predicate calculus.

8. Discuss the various stages of development of expert system.

9. (a) Write a short note on scripts.

(b) Discuss structural representation of knowledge.

10. (a) Discuss how statistical techniques are used in the development of expert systems.

(b) Write a short note on forward chaining.

11. Discuss the areas suitable for expert system development.

12. Discuss the knowledge representation technique of MYCIN. 13. Write a short note on the following:

(a) Perception

(b) Neural networks.

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