

Roll No.

Total No. of Questions : 09]

[Total No. of Pages : 02

B. Tech. (Sem. - 6th)

EXPERT SYSTEM

SUBJECT CODE : IT - 312 (Elective - I)

Paper ID : [A0524]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.
- 3) Attempt any **Two** questions from Section - C.

Section - A

Q1)

(10 × 2 = 20)

- a) What are the general features of an expert system?
- b) What is the role of knowledge engineer in expert system?
- c) Differentiate between knowledge based system and expert system.
- d) What do you understand by semantic nets?
- e) State the disadvantages of rule based expert systems.
- f) Differentiate between membership and activation functions.
- g) What is the need of planning in expert system?
- h) How does prolog deals with reasoning?
- i) Why knowledge acquisition is not so easy?
- j) Define fuzzy logic.

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Section - B

(4 × 5 = 20)

- Q2)** Explain the concept of Hierarchical planning with suitable example.
- Q3)** Describe the structured knowledge representation techniques.
- Q4)** What are the challenges and issues in designing of a good end user interface in an expert system? Explain with examples.
- Q5)** Describe the following :
(a) Domain exploration.
(b) Meta-knowledge.
- Q6)** What are the advantages and disadvantages of expert system shells? Explain.

Section - C

(2 × 10 = 20)

- Q7)** Explain the following with reference to neural system :
(a) Structure of neural system.
(b) Its use in designing expert system.
- Q8)** Give the technical details of any real time expert system with its architecture and its implementation.
- Q9)** Describe the working of any two industrial and commercial expert systems.

