CBCS SCHEME

USN | | | | | | | | | | |

20MAR/MCM31

Third Semester M.Tech. Degree Examination, Feb./Mar.2022
Artificial Intelligence & Expert System in Automation

Time: 3 hrs.   Max. Marks: 100

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

1 a. Explain with a neat diagram, Knowledge Acquisition system.   **(10 Marks)**
   b. Define Expert System. Describe organization of an expert system with a neat diagram.
                                                                                    (10 Marks)

OR

2 a. Explain production system and its characteristics.   **(10 Marks)**
   b. Define Artificial Intelligence. Explain any eight applications of AI.   **(10 Marks)**

Module-2

3 a. Explain five types of knowledge Acquisition techniques.   **(10 Marks)**
   b. Explain the architecture of knowledge based agent with an neat diagram.   **(10 Marks)**

OR

4 a. Discuss in brief interpreters and embedded languages.   **(10 Marks)**
   b. Explain recursive unification function in detail.   **(10 Marks)**

Module-3

5 a. Define total life cycle cost and explain sensitivity analysis.   **(10 Marks)**
   b. Explain compatibility analysis with an example.   **(10 Marks)**

OR

6 a. Explain Life Cycle Ranking in detail.   **(10 Marks)**
   b. Explain five different types of Decision Support System.   **(10 Marks)**

Module-4

7 a. Explain with a neat sketch competitive learning.   **(10 Marks)**
   b. Explain briefly methods of inference.   **(10 Marks)**

OR

8 a. Explain briefly artificial life and society.   **(10 Marks)**
   b. Explain five states of General Problem solver.   **(10 Marks)**

Module-5

9 a. Explain Backward and Forward chaining Inference techniques.   **(10 Marks)**
   b. Explain expert system shells with a neat diagram.   **(10 Marks)**

OR

10 a. Explain the structure of fuzzy logic controller.   **(10 Marks)**
    b. Write a short note on:
       (i)   MYCIN
       (ii) PROSPECTOR
       (iii) DENDRAL.   **(10 Marks)**

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