CBCS SCHEME

17MT832

Eighth Semester B.E. Degree Examination, July/August 2022
Artificial Intelligence

Time: 3 hrs.

Max. Marks: 100

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

Module-1

1 a. Define Artificial Intelligence. Explain the scope of artificial intelligence. (10 Marks)
   b. Explain in detail Alan Turning Machine. State the limitations of turning test. (10 Marks)

OR

2 a. Discuss the multidisciplinary aspects of artificial intelligence and related fields. (10 Marks)
   b. What is an intelligent agent? Explain in detail intelligent agent with its characteristics and applications. (10 Marks)

Module-2

3 a. Explain simple Hill climbing algorithm with relevant details. (10 Marks)
   b. Explain Breadth First search algorithm and mention its advantages. (10 Marks)

OR

4 a. Explain steepest Ascent Hill climbing algorithm with relevant details. (10 Marks)
   b. Explain Generate and Test algorithm with relevant details. (10 Marks)

Module-3

5 a. Explain the steps to develop an Expert system with relevant details. (10 Marks)
   b. Explain the operation of MYCIN as an expert system in diagnosing bacterial infections. (10 Marks)

OR

6 a. Explain expert system architecture with relevant details. (10 Marks)
   b. Explain the operation of DENDRAL as an expert system in helping an organic chemist. (10 Marks)

Module-4

7 a. Explain Decision Tree architecture with relevant details. (10 Marks)
   b. Explain Semantic Network architecture with relevant details. (10 Marks)

OR

8 a. Explain Blackboard system architecture with relevant details. (10 Marks)
   b. Explain Neural Network architecture with relevant details. (10 Marks)

Module-5

9 a. Explain Genetic algorithm with flow chart. (10 Marks)
   b. Define Perceptron. Explain simple perceptron with neat diagram and relevant details. (10 Marks)

OR

10 a. Explain Learning automation model with a case study of temperature control model. (10 Marks)
    b. What is the role of an Intelligent Editor? Explain Intelligent editors with relevant details. (10 Marks)

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