CBCS SCHEME

17MT832

Eighth Semester B.E. Degree Examination, July/August 2021
Artificial Intelligence

Time: 3 hrs.

Max. Marks: 100

Note: *Answer any FIVE full questions.*

1 a. Define Artificial Intelligence. Discuss the importance of Artificial Intelligence. **(10 Marks)**
   b. Outline the early work done in the field of Artificial Intelligence. **(10 Marks)**

2 a. What is an Intelligent agent? Explain in detail Intelligent agent with its characteristics and applications. **(10 Marks)**
   b. Explain in detail Alan Turing machine and state the limitations of Turing test. **(10 Marks)**

3 a. Explain Breadth First search algorithm and outline its merits. **(10 Marks)**
   b. Explain Depth First search algorithm and outline its advantages. **(10 Marks)**

4 a. Explain simple hill climbing algorithm with relevant details. **(10 Marks)**
   b. Explain steepest ascent hill climbing algorithm with relevant details. **(10 Marks)**

5 a. Define Expert system. Discuss the characteristics of Expert system. **(10 Marks)**
   b. Explain Expert system architecture with relevant details. **(10 Marks)**

6 a. Explain the operation of MYCIN as an Expert system in diagnosing bacterial infections. **(10 Marks)**
   b. Explain the operation of DENDRAL as an expert system in helping an organic chemist. **(10 Marks)**

7 a. Explain Semantic Network Architecture with relevant details. **(10 Marks)**
   b. Explain Blackboard system architectures with relevant details. **(10 Marks)**

8 a. Explain Decision Tree Architectures with relevant details. **(10 Marks)**
   b. Explain Neural Network Architectures with relevant details. **(10 Marks)**

9 a. Define Perceptron. Explain simple perceptron with neat diagram and relevant details. **(10 Marks)**
   b. Explain Learning Automation model with a case study of temperature control model. **(10 Marks)**

10 a. Explain Genetic Algorithm with flow chart. **(10 Marks)**
   b. What is the role of an Intelligent Editor? Explain Intelligent Editors with relevant details. **(10 Marks)**

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