CBCS SCHEME

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

15MT832

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

Time: 3 hrs. Max. Marks: 80

Note: ***Answer any FIVE full questions.***

1 a. Define Artificial Intelligence. Explain the scope of Artificial Intelligence. **(08 Marks)**
b. Outline the early work done in the field of Artificial Intelligence. **(08 Marks)**

2 a. What is an Intelligent agent? Explain in detail Intelligent agent with its characteristics and applications. **(08 Marks)**
b. Explain in detail Alan Turing machine and state the limitations of Turing test. **(08 Marks)**

3 a. Explain Breath first search algorithm and outline its merits. **(08 Marks)**
b. Explain Depth first search algorithm and outline its advantages. **(08 Marks)**

4 a. Explain simple hill climbing algorithm with relevant details. **(08 Marks)**
b. Explain steepest ascent hill climbing algorithm with relevant details. **(08 Marks)**

5 a. Define expert system. Discuss the characteristics of expert system. **(08 Marks)**
b. Explain expert system architecture with relevant details. **(08 Marks)**

6 a. Explain the operation of MYCIN as an expert system in diagnosing bacterial infections. **(08 Marks)**
b. Explain the operation of DENDRAL as an expert system in helping an organic chemist. **(08 Marks)**

7 a. Explain semantic network architectures with relevant details. **(08 Marks)**
b. Explain black board system architectures with relevant details. **(08 Marks)**

8 a. Explain decision tree architectures with relevant details. **(08 Marks)**
b. Explain neural network architectures with relevant details. **(08 Marks)**

9 a. Define Perceptron. Explain simple perceptron with neat diagram and relevant details. **(08 Marks)**
b. Explain learning Automation model with a case study of temperature control model. **(08 Marks)**

10 a. Explain genetic algorithm with flow chart. **(08 Marks)**
b. What is the role of an intelligent editor? Explain intelligent editors with relevant details. **(08 Marks)**

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

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