USN | | | | | | | | | | 15MT832

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

Time: 3 hrs.   Max. Marks: 80

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

Module-1

1   a. Define Artificial Intelligence. Discuss AI Task domains.   (08 Marks)
     b. Discus the scope of Artificial Intelligence.   (08 Marks)

OR

2   a. Explain Alan Turning Machine with schematic diagrams and needs of computer to implement it.   (08 Marks)
     b. Explain Intelligent Agents with Schematic diagram characteristics of Agents, and its applications.   (08 Marks)

Module-2

3   a. Explain Breadth First search algorithm with its merits and demerits.   (08 Marks)
     b. Explain Depth First search algorithm with its merits and demerits.   (08 Marks)

OR

4   a. Explain simple Hill Climbing Algorithm.   (08 Marks)
     b. Explain steepest Ascent Hill Climbing Algorithm.   (08 Marks)

Module-3

5   a. Define Expert system and Explain Expert system Architecture.   (08 Marks)
     b. Discuss characteristics of Expert System and step to develop an expert system.   (08 Marks)

OR

6   a. Explain the Expert System MYCIN with an explain and working methodology.   (08 Marks)
     b. Explain the Expert System DENDRAL with all features, Types and working process.   (08 Marks)

Module-4

7   a. Explain Decision Tree Architecture with neat structure and relevant details.   (08 Marks)
     b. Explain Blackboard system Architecture with all its components.   (08 Marks)

OR

8   a. Explain Neural Network Architecture with a multilayer neural network, and its working.   (08 Marks)
     b. Explain Semantic Network Architecture with an example.   (08 Marks)

Module-5

9   a. Explain a simple perception with neat diagram.   (08 Marks)
     b. Explain Learning Automata with a model and temperature control process.   (08 Marks)

OR

10 a. Explain Genetic Algorithm with the detail of cross over, Inversion and mutations.   (08 Marks)
     b. Explain checkers playing example with a two move Look – Ahead sequence.   (08 Marks)

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