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Total No. of Pages : 02

Total No. of Questions : 09

**B.Tech. (CSE / ECE / IT / ME) (Sem.-7)**

**ARTIFICIAL INTELLIGENCE**

**Subject Code : BTCS-602-18**

**M.Code : 90611**

**Date of Examination : 21-01-2023**

**Time : 3 Hrs.**

**Max. Marks : 60**

**INSTRUCTIONS TO CANDIDATES :**

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

**SECTION-A**

**1. Write briefly :**

- a. What is Decision Tree?
- b. What is Declarative Knowledge?
- c. What is rule based learning?
- d. Explain Fuzzy logic.
- e. What do you mean by Open list?
- f. Define Probability.
- g. Define temporal difference learning.
- h. What is state space?
- i. Role of AI in today's era?
- j. What do you mean by policy iteration?

## **SECTION-B**

2. Explain Knowledge based system in detail with suitable example.
3. Explain Depth First Search in detail.
4. Explain Bayesian Network with suitable example.
5. What do you mean by MDP? Explain.
6. Explain Passive reinforcement learning in detail.

## **SECTION-C**

7. What are the characteristics of AI problem, explain with the help of example.
8. Explain adaptive dynamic programming and active reinforcement learning in detail with appropriate examples.
9. Explain Best first search and game search in detail with suitable examples.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**