

**Roll No.**

**Total No. of Pages : 02**

**Total No. of Questions : 09**

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

## ARTIFICIAL INTELLIGENCE

**Subject Code : BTEC-908A-18**

**M.Code : 90678**

**Date of Examination : 27-05-2023**

**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 do you mean by intelligent control?
  - b. What is declarative knowledge?
  - c. Explain ANN.
  - 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 Architecture of Intelligent control system?
3. Explain Self Organizing Networks in detail.
4. Explain Fuzzy set operations with suitable example.
5. What do you mean Mutation and Crossover probabilities? Explain.
6. Explain GA in route planning for travelling sales person.

### **SECTION-C**

7. What are the characteristics of AI problem, explain with the help of example.
8. Explain Crisp Vs Fuzzy set theory in detail with appropriate example.
9. Explain Single and multi-point crossover operation in detail with suitable examples.