

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

MCA (Sem.-3)

ARTIFICIAL INTELLIGENCE & SOFT COMPUTING

Subject Code : PGCA1926

M.Code : 90799

Date of Examination : 19-12-2022

Time : 3 Hrs.

Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION - B & C have FOUR questions each.**
3. **Attempt any FIVE questions from SECTION B & C carrying TEN marks each.**
4. **Select atleast TWO questions from SECTION - B & C.**

SECTION-A

- 1. Write short notes on :**
- a) What is artificial Intelligence?
 - b) Define neuron.
 - c) Define First Order Logic.
 - d) What is a Clause?
 - e) What is the best way to go for Game playing problem?
 - f) How do you represent “*All dogs have tails*”?
 - g) What is top-down parsing?
 - h) Define Supervised Learning Networks.
 - i) Define Activation Function.
 - j) Define Fuzzy Control Systems.

SECTION-B

2. What do you mean by Water Jug problem? Explain with its space search.
3. What is forward chaining and backward chaining in AI explain in details?
4. What do you mean by Heuristic Search? Discuss Memory bounded heuristic Search in detail by taking suitable example.
5. What is semantic analysis and pragmatics? Discuss with examples.

SECTION-C

6. Derive output equations and weight update equations for a multilayer feed forward neural network using back propagation algorithm.
7. Explain crisp and fuzzy implication rules.
8. Explain about the basic operations and technologies in genetic algorithms.
9. Explain the concept of associative memory in ANN. List its types.

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