



QP CODE: 26019631



Reg No :

Name :

M.Sc DEGREE (CSS) EXAMINATION, MARCH 2026

Fourth Semester

MSC Data Analytics

ELECTIVE - ST900401 - ARTIFICIAL INTELLIGENCE

2020 Admission Onwards

A98E69D9

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. Define State space in AI problem.
2. Describe the algorithm to solve a problem in steps.
3. Define RETE matching algorithm.
4. Define First Order Logic. What are its two main parts?
5. Briefly explain the Isa and instance relationships.
6. What are the different types of knowledge representation?
7. What do you mean by Temporal logic?
8. Define Bayes' Theorem.
9. What do you meant by Knowledge Base?
10. What do you mean by Rule based expert system?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. Explain Hill Climbing algorithm.
12. What do you mean by Mean End Analysis algorithm.





13. Describe the structure and working of LISP program.
14. Give the truth table for conjunction and disjunction.
15. Briefly explain about non monotonic reasoning.
16. Explain what do you mean by Certainty factors and Rule based systems.
17. Discuss the core components of an expert system shell.
18. Discuss about fuzzy expert system.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Explain Heuristic Search algorithm with an example.
20. Explain PROLOG. Explain the 3 different elements of PROLOG.
21. Explain Fuzzy system with diagram.
22. Explain blackboard architecture with a diagram.

(2×5=10 weightage)

