DECEMBER 2023 **P/ID 17633/PCATF**

Time : Three hours Maximum : 80 marks

PART A — ($10 \times 2 = 20$ marks)

Answer any TEN questions.

1. Define the term AI.

2. What are called Intelligent agents?

3. How do we define AI problems?

4. Name the various search strategies in AI.

5. What is called Local beam search?

6. What is forward pruning?

7. Write a note on stochastic games.

8. How will you define constraint satisfaction problem?

9. Give an example for propositional logic.

10. What do you mean by Unification?

11. Define the term uncertainty.

12. State Baye's rule.

PART B — (5 × 6 = 30 marks)

Answer any FIVE questions.

13. Explain the applications of AI.

14. Explain TIC TAC TOE game using problem solving approach.

15. Explain Best First Search algorithm.

16. Brief on the concept of simulated annealing.

17. Discuss the limitations of Game search algorithms.

18. Illustrate the inference in CSPs.

19. Describe briefly about Naïve Bayes model.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

20. Explain the risks and benefits of AI.

21. Illustrate A* algorithm with suitable example.

22. Explain the working of minimax search procedure.

23. Explain propositional logic and propositional theorem proving.

24. Discuss about Mental objects and modal logic.

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