

Time : Three hours

Maximum : 80 marks

**PART A — (10 × 2 = 20 marks)**

Answer any TEN questions.

1. Write down the risks in AI.
2. What are the components of Intelligent agent?
3. Name the uniformed search strategies.
4. What is meant by Iterative deepening?
5. Write the concept behind simulated Annealing.
6. What is local beam search?
7. What are called stochastic games?
8. What is called constraint propagation?
9. What are the merits of forward pruning?
10. Write a note on First order logic.
11. How to do Automated planning?
12. What is meant by ontological engineering?

PART B — ( $5 \times 6 = 30$  marks)

Answer any FIVE questions.

13. Bring out the History of AI.
14. Explain TIC TAC TOE game using problem solving approach.
15. Describe DFS search algorithm.
16. Explain Mini-Max search procedure with suitable example.
17. Write about Monte Carlo tree search.
18. Explain theorem proving using propositional logic.
19. Explain Baye's rule and its use.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

20. Explain the following:
  - (a) Intelligent Agents
  - (b) Structure of Agents
21. Explain A\* search algorithm.

22. Describe Alpha–Beta pruning with neat sketch.
  23. Explain about inference and Backtracking in CSP.
  24. Discuss the various methods for Knowledge representation.
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