

**MAY 2024**

**P/ID 17633/PCATF**

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Time : Three hours

Maximum : 80 marks

PART A — ( $10 \times 2 = 20$  marks)

Answer any TEN questions.

1. Mention the risks of AI.
2. What do you mean by agents in AI?
3. What are called redundant paths in search?
4. What is Heuristic function?
5. What is called simulated annealing?
6. What is Beta tree search?
7. What is constraint propagation?
8. How theorem proving is carried out using propositional logic?
9. Give an example for inference in First order logic.
10. Mention the various methods of Knowledge representation.
11. What is called classical planning?
12. State the use of Bayes rule.

PART B — ( $5 \times 6 = 30$  marks)

Answer any FIVE questions.

13. Bring out the history of AI.
14. Write about Intelligent agents.
15. Compare BFS and DFS Search strategy.
16. Outline the working principle of Hill climbing search.
17. Explain Alpha-Beta pruning.
18. Illustrate the backtracking search for CSPs.
19. Write about mental objects and modal logic.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

20. Describe the structure of agents.
  21. Illustrate Greedy Best First search strategy.
  22. Explain the working principle of AND – OR search trees.
  23. Describe the knowledge Engineering in First order logic.
  24. Discuss the algorithms for classical planning.
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