

**DECEMBER 2022**

**P/ID 17633/PCATF**

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Time : Three hours

Maximum : 80 marks

**PART A — (10 × 2 = 20 marks)**

Answer any TEN questions.

1. Define the term AI.
2. What do you mean by Intelligent Agent?
3. Name different types of learning.
4. What is meant by Heuristic search?
5. Write the goal of recursive best first search.
6. Define the term uncertainty.
7. What is meant by Alpha-Beta pruning?
8. What is called constraint propagation?
9. Differentiate between forward chaining and backward chaining.
10. Write down the syntax and semantics of First order logic.

11. Define Baye's theorem.
12. Write any two methods to handle uncertainty.

PART B — ( $5 \times 6 = 30$  marks)

Answer any FIVE questions.

13. Explain the applications of AI.
14. Explain how agents should act.
15. Compare BFS and DFS search algorithms.
16. What do you mean by Heuristic search? Explain.
17. Describe Hill climbing algorithm.
18. Explain about resolution mechanism in First order logic.
19. Describe Naive Bayes model.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

20. Discuss on Intelligent agents and Environment.
21. Explain Greedy Best first search algorithm.
22. Describe AND-OR search trees with neat sketch.

23. Explain in detail about constraint satisfaction problem with diagram.
  24. Explain about automated planning.
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