**MAY 2021** **P/ID 17633/PCATF**

Time : Three hours Maximum : 80 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. Define the term AI.
2. Differentiate between Agent and Program.
3. What is meant by meta reasoning?
4. What is meant by knowledge base?
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. What are the different types of logics used in reasoning?
11. Define Baye's theorem.
12. What are the techniques used to overcome uncertainty inherent?

PART B — (5 × 6 = 30 marks)

Answer any FIVE questions.

13. Discuss the risks and benefits of AI.

14. Explain how agents should act.

15. Briefly describe Breadth first search algorithm.

16. What do you mean by Heuristic search? Explain.

17. Describe Hill climbing algorithm.

18. Write short notes on propositional logic.

19. Explain Naïve Bayes model.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

20. Discuss on Intelligent agents and Environment.

21. Describe A* algorithm.

22. Explain Mini-Max search procedure.

23. Explain in detail about constraint satisfaction problem with diagram.

24. Explain the algorithm for classical planning.

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