

Time : Three hours

Maximum : 75 marks

PART A — ($10 \times 1 = 10$ marks)

Answer any TEN questions.

1. Define the term — AI.
2. What is Rationality?
3. What is meant by Cognitive science?
4. Define the term — Search tree.
5. What is Adversarial search?
6. Define the term — Semantic Nets.
7. Mention any two issues in Knowledge representation.
8. Differentiate — Procedural versus Declarative knowledge.
9. What is meant by Explanation based learning?

10. What is Unification and Lifting in first-order logic?
11. Define the term — Machine learning.
12. Mention the problem areas addressed by Expert system.

PART B — ($5 \times 5 = 25$ marks)

Answer any FIVE questions.

13. Discuss on the nature of Environments in intelligent agents.
14. Describe about the Problem solving Agents.
15. Explain the method of Searching with partial information.
16. Discuss on Informed (Heuristic) Search strategies.
17. Describe about Breadth first and Depth first search strategies.
18. Explain the method of using First-order Logic.
19. How the Expert system works? Discuss on the types Expert systems.

PART C — ($4 \times 10 = 40$ marks)

Answer any FOUR questions.

20. Explain the history of Artificial Intelligence.
 21. Describe about the Uninformed Search strategies.
 22. Discuss on Optimal decisions in Multiplayer games and Alpha-Beta pruning.
 23. Explain the Knowledge representation issues.
 24. Describe about the concept of Resolution in first-order logic.
 25. Discuss on the methods of Knowledge acquisition, reasoning in AI, model-based and case-based reasoning.
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