

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. What is an AI Technique?
2. What is operationalization?
3. List the requirements of good control strategies.
4. What is Best-first Search?
5. What is a Local maximum?
6. What is Acquisitional Efficiency?
7. What is Frame problem?
8. What is Natural detection?
9. What is unification algorithm?
10. What is logic programming?
11. What is search control knowledge?
12. List any two characteristics of an Expert systems.

PART B — ( $5 \times 5 = 25$  marks)

Answer any FIVE questions.

13. Explain Depth First search algorithm with an example.
14. Explain briefly the production systems.
15. Explain the steps in Generate-And-Test algorithm.
16. Explain the steepest-Ascent Hill Climbing algorithm with an example.
17. Write a brief note on Representations and Mappings.
18. Explain the use of predicate logic with an example.
19. Distinguish between Forward and Backward reasoning.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

20. Explain the water-Jug problem with production rules.
21. Explain the problem Reduction algorithm with an example.

22. Discuss the several issues in knowledge representation.
  23. Explain the Resolution in predicate logic with an example.
  24. Explain the knowledge Acquisition strategies in detail.
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