2 Marks

1. List few applications of Artificial Intelligence.

2. Compare depth first search and breadth first search.

3. What is constraint satisfaction?

4. State the significance of alpha beta pruning.

5. Compare forward chaining and backward chaining.

6. Express "Every house is a physical object" in first order logic.

7. What are the features of an ideal planner?

8. Why does uncertainty arise?

9. Compare Passive and Active Reinforcement Learning.

10. List the various forms of learning.

11 Marks

11. What are agents? How do agents perceive environments? Explain.

12. Draw the structure of an agent and explain its role in problem solving.

13. Explain in detail the types of uninformed search strategies in detail.

14. Discuss the A\* algorithm with an example.

15. Explain the min max search procedure in detail with an example.

16. Explain iterative deepening with an example.

17. Explain how alpha beta pruning reduces number of nodes in min max strategy.

18. Explain in detail the basic components of propositional logic.

19. Explain in detail the AND - Elimination rule in propositional logic

20. Discuss the concept of resolution with an example.

21. How is knowledge represented in uncertain domains? Explain.

22. How is classical planning done efficiently? Give an example.

23. List the significance of a Bayesian network. Explain in detail how inferences are extracted in a Bayesian network.

24. Discuss how ensemble learning trains multiple learners to solve the same problem.

25. List some of the applications of artificial neural networks.

26. Explain in detail inductive logic programming.

27. What is active reinforcement learning? Explain with an example.