Questions Bank

Unit 1

1. What is Artificial Intelligence?
2. What is AI Technique?
3. Define an agent and agent function.
4. Differentiate an agent function and an agent program.
5. What are the different types of agents?
6. Define rational agent?
7. List down the characteristics of intelligent agent
8. What is problem reduction?
9. Explain common AI Techniques.
10. Explain AI underlying assumption.
11. Define the terms goal formulation and problem formulation
12. Explain problem characteristics.
13. Explain AI Problems.
14. List the steps involved in simple problem-solving agent.

Unit 2

1. What is best-first search and state space search?
2. What are the advantages and disadvantages of using breadth-first search in AI application?
3. What is depth first Search?
4. Explain are advantages and disadvantages of depth first Search in AI applications?
5. Explain hill climbing technique and explain its drawback
6. Explain in detail Heuristic search techniques.
7. Discuss iterative-deepening A*. with an example
8. Explain AO* algorithm. Give one example where AO* is suitable to apply
9. Importance of Game Playing
10. What are the Challenges in Game Playing?
11. Explain the Minimax Procedure with example.
12. Explain Alpha-Beta Pruning algorithm with example.
13. Solve Water Jug problem using production rule system.
14. What is Heuristic search? Explain characteristics of Heuristic search.

Unit 3

1. What is knowledge representation?
2. What is the role of inference in knowledge representation?
3. What is propositional logic in knowledge representation?
4. What is predicate logic? Explain the predicate logic representation with reference to suitable example
5. Write Issues in knowledge representation and provide solution of any 2 issues.

6. Explain Forward and Backward Reasoning with example.
7. Explain Knowledge Representation Schemes.
8. Explain properties of good knowledge representation
9. What are semantic nets? Explain advantages and disadvantages of semantic nets
10. What are frames? How do they differ from semantic nets?
11. Explain Semantic Tableau system.
12. Explain difference between Procedural and Declarative Knowledge

Unit 4

1. Explain the propositional logic in AI?
2. Explain First order logic (FOL)?
3. Explain the Quantifiers in FOL?
4. Explain properties of quantifiers?
5. Explain Free Bound variables in detail?
6. Explain the rules of inference in AI?
7. Explain types of inference rules?
8. What is learning? Explain different types of learning.
9. What is Rote Learning
10. What is Induction learning?
11. Explain Reinforcement Learning technique .
12. Explain forward chaining and Backward chaining.
13. Explain Statistical Learning with its methods.

Unit 5

1. What are Expert Systems? Explain its characteristics of Expert Systems
2. Explain architecture of expert systems, with its application areas.
3. Explain types of expert systems.
4. Differentiate between Expert systems Vs Traditional Systems.
5. Explain are advantages and disadvantages of Expert Systems
6. What is knowledge acquisition? Explain different methods of knowledge acquisition