1. What is Game theory?

2. Explain Heuristic Alpha–Beta Tree Search

3. Explain Stochastic Games, Partially Observable Games

4. Explain Constraint Satisfaction Problems (CSP)

5. Discuss Inference in CSPs, Backtracking Search for CSPs

3.2

4. Explain Limitations of Game Search Algorithms

3.3

1. Explain optimal decisions in Games

2. Discuss in detail Monte Carlo Tree Search

4.1

1. Explain Logical Agents, Knowledge-Based Agents

2. Explain The Wumpus World

3. Give Propositional Theorem Proof

4. What is Effective Propositional Model Checking

5. Explain First-Order Logic

4.2

4. Discuss Syntax and Semantics of First-Order Logic

5. Discuss Knowledge Engineering in First-Order Logic

5.1

1. What is Inference in First-Order Logic

2. Explain Unification and First-Order Inference

3. Explain Resolution, Knowledge Representation

4. Explain Mental Objects and Modal Logic

5. Discuss Reasoning with Default Information

5.2

2. Explain propositional

3. Explain First-Order Interface

4. Explain Forward Chaining

5. Explain Backward Chaining

5.3

1. Differentiate Propositional vs. First-Order Inference

2. Compare Forward Chaining, Backward Chaining

4.Explain Ontological Engineering

6.1

1. Explain Classical Planning

2. Discuss in detail Heuristics for Planning

3. Explain in detail Planning and Acting in Nondeterministic Domains, Time, Schedules, and Resources

4. Explain Analysis of Planning Approaches, Limits of AI

5. Compare and contrast Ethics of AI, Future of AI

6.2

1. Explain Automated Planning

2. Explain Time

3. Explain in detail Planning

4. Explain Algorithms for Classical Planning

6.3

3. Explain Resources

5 AI Architecture.

6.4

1. Explain Schedules.