AI Exam Revision Topics

Question 1: Compulsory Topics

Students should read across all the following areas:

- **Basic AI**
- **CSP (Constraint Satisfaction Problems)**
- **Machine Learning**
- **Inferencing**
- **Logic**
- Other foundational AI concepts

Question 2: Search Algorithms

- **a. Metaheuristic Algorithms**
  - Focus on understanding and applying metaheuristics to solve problems.
- **b. Informed and Uninformed Search**
  - Application to solve a problem

Question 3: Logic

- **a. Propositional Logic**
  - Converting statements to **Clausal Form** and **CNF (Conjunctive Normal Form)**
  - Applying **Resolution**
- **b. Predicate Logic**
  - Converting statements to **Clausal Form** and **CNF**
  - Applying **Resolution** in Predicate Logic

Question 4: Advanced Topics

- **a. CSP (Constraint Satisfaction Problems)**
  - **Backtracking**
  - Improving **Arc Consistency**
- **b. Minimax and Alpha-Beta Algorithms**
  - Applications of **Minimax** and **Alpha-Beta Pruning**

Question 5: Prolog Programming

- Write a **Prolog program** with certain features (details will be specified in the exam).