

Question Bank for Module:

question	level
Define the term "heuristic search procedure" in the context of game playing.	Knowledge
Identify the two players involved in a game playing scenario.	Knowledge
State the purpose of the static evaluation function in the minimax search procedure.	Knowledge
List the factors that influence the decision to stop the recursion in the MINIMAX procedure.	Knowledge
Summarize the main reasons why games were considered a good domain for exploring machine intelligence.	Comprehension
Explain how the minimax search procedure works in a two-ply search scenario.	Comprehension
Describe the role of the opponent in the minimax search procedure and how their actions affect the search process.	Comprehension
Categorize the different types of cutoffs used in the alpha-beta pruning technique.	Comprehension
Determine the best move for the maximizing player in a given game state using the minimax search procedure.	Application
Implement the MINIMAX algorithm in a programming language of your choice.	Application
Solve a simple game using the alpha-beta pruning technique.	Application
Interpret the results of a minimax search with alpha-beta pruning and explain the impact of the cutoffs.	Application
Compare and contrast the minimax search procedure with the alpha-beta pruning technique.	Analysis
Analyze the effectiveness of the "waiting for quiescence" strategy in mitigating the horizon effect.	Analysis

Question the assumption that the opponent will always choose the optimal move in the minimax procedure.	Analysis
Connect the concept of iterative deepening to the idea of branch-and-bound techniques in search algorithms.	Analysis
Design a game playing program that incorporates the minimax search procedure with alpha-beta pruning.	Synthesis
Compose a detailed explanation of the iterative deepening algorithm and its advantages over traditional depth-first search.	Synthesis
Construct a game tree for a simple game and demonstrate how the minimax search procedure would be applied.	Synthesis
Formulate a new heuristic function for a specific game and evaluate its effectiveness in improving the performance of the minimax search.	Synthesis