

Q1) List all the methods which could be used to solve the tower of Hanoi problem

Ans 1) Recursion: Divides the problem into smaller subproblems until a base case is reached.

2) Iterative approach: Simulates the recursive process using loops and stacks or queues.

3) Binary representation: Represents the problem using binary numbers and manipulates them to determine moves.

Q2) Which is the best approach and why?

Ans The recursive approach is favored for solving the tower of Hanoi problem because it naturally aligns with the problem's recursive nature.

Q3) What are the applications of the Tower of Hanoi?

Ans 1) Computer science: It serves as a classic problem for teaching recursion and algorithms.
2) Operations research: It can model logistical and scheduling problems where the objective is to minimize the number of moves or time required to complete a task.