

Discrete Structure

1. Remembering:

- Define the basic concepts of set theory
- Recall the properties and operations of sets
- Identify the components of a Venn diagram
- List the different types of relations and functions

2. Understanding:

- Explain the significance of Cartesian products in discrete structures
- Interpret the role of predicates and quantifiers in logic
- Describe the application of the Pigeonhole Principle in solving problems
- Comprehend the concept of permutations and combinations

3. Applying:

- Utilize recursive algorithms to solve problems related to Fibonacci numbers and the Tower of Hanoi
- Apply divide and conquer strategy to solve problems
- Implement Prim's and Kruskal's Algorithms to find Minimum Spanning Trees in graphs
- Solve problems related to zero-one matrices and directed graphs

4. Analyzing:

- Analyze the order of a matrix and its implications
- Evaluate the efficiency and effectiveness of different tree traversal algorithms
- Compare and contrast the characteristics of Eulerian and Hamilton directed graphs

5. Evaluating:

- Evaluate the correctness and efficiency of linear transformations
- Assess the validity of representations of graphs
- Critically analyze solutions to complex problems in discrete structures

6. Creating:

- Design recursive algorithms to solve complex problems
- Develop strategies for finding Minimum Spanning Trees in graphs
- Construct solutions to problems involving Zero-One Matrices and Directed Graphs