

# **GATE DA: Programming & DSA Study Plan**

## **7-Day Study Plan for GATE DA (Programming & DSA)**

Date: April 13, 2025

This study plan is designed for GATE DA aspirants focusing on programming and data structures topics. It includes essential concepts, resources, and practice tips.

### **Focus Areas**

- Programming in Python
- Data Structures: Arrays, Stacks, Queues, Linked Lists, Trees, Hash Tables
- Search & Sorting: Linear, Binary, Bubble, Insertion, Selection
- Divide and Conquer: Merge Sort, Quick Sort
- Graph Theory: Traversals (BFS/DFS), Shortest Path (Dijkstra)

### **7-Day Plan**

Day 1: Python Programming Basics

- Resources: NPTEL, W3Schools Python
- Practice: Hackerrank challenges

Day 2: Arrays, Lists, Stacks, Queues

- Resources: GeeksforGeeks, Python Lists & Deques
- Practice: 10 GFG problems

Day 3: Linked Lists & Hash Tables

- Resources: GFG, Python dict
- Practice: Implement + quiz

Day 4: Trees & Traversals

# **GATE DA: Programming & DSA Study Plan**

- Resources: GFG, Visualgo.net
- Practice: Preorder, Inorder, Postorder

## **Day 5: Searching & Sorting Basics**

- Topics: Linear/Binary Search, Bubble, Insertion, Selection
- Practice: Code and trace examples

## **Day 6: Divide & Conquer**

- Topics: Merge Sort, Quick Sort
- Practice: Trace recursion, write code

## **Day 7: Graph Theory Basics**

- Topics: BFS, DFS, Dijkstra
- Practice: Solve 3-5 problems on GFG

## **Tips for Success**

- Allocate 30% time to theory and 70% to practicing problems.
- Learn by tracing code and doing dry runs.
- Take GATE DA mock tests from platforms like Made Easy, Unacademy, or Testbook.
- Join Telegram or Discord communities for GATE DA for discussions and materials.