

## **Day: 1 (Anmol): [07-03-2023]**

- Programming fundamentals & Elements of a Program
- Basic data types: – Arithmetic, Logical and Assignment operators

## **Day: 2 (Anmol): [09-03-2023]**

- Taking inputs
- Data types and their variations (long, double etc)
- Loops
- Functions, user defined and inbuilt
- Integer overflow

## **Day: 3 (Tyagi): [11-03-2023]**

- Introduction to Data structure and Algorithm
- Arrays, String and Matrix

## **Day: 4 (Anmol): [16-03-2023]**

- Stacks and Queues
- Stack and Queue STL
- Structs, Class

## **Day: 5 (Tyagi): [18-03-2023]**

- LinkedList
- Pointers

## **Day: 6 (Tyagi): [19-03-2023]**

- Introduction to analysis of algorithms
- Lambda
- Sorting algorithms
  - Selection sort
  - Bubble sort
  - Insertion sort

## **Day: 7 (Anmol): [21-03-2023]**

- sort(), find()
- Searching algorithms
  - Linear search
  - Binary search

## **Day: 8 (Anmol): [23-03-2023]**

- Recursion – 1: Basic idea, Recursion call stack
- Recursion – 2: Leap of faith approach towards recursion

**Day: 9 (Tyagi): [25-03-2023]**

- Merge sort and Quick sort

**Day: 10 (Tyagi): [26-03-2023]**

- Trees, Binary Tree
- Sets and Maps (ordered and unordered)
- Binary Search Trees (BST) and Balanced BST

**Day: 11 (Tyagi): [28-03-2023]**

- Hash Tables
- unordered\_map, unordered\_set

**Day: 12 (Tyagi): [30-03-2023]**

- Bit Manipulation

**Day: 13 (Tyagi): [01-04-2023]**

- Introduction to graphs

**Day: 14 (Anmol): [04-04-2023]**

- Backtracking, solving sudoku

**Day: 15 (Anmol): [11-04-2023]**

- Greedy Algorithms

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TEST – MID

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**Day: 16 (Anmol): [13-04-2023]**

- Introduction to Dynamic Programming

**Day: 17 (Anmol): [15-04-2023]**

- Sliding Window – Two pointers

**Day: 18 (Tyagi): [16-04-2023]**

- Problem set: 1 – 10/12 Easy level DSA problems

**Day: 19 (Tyagi): [18-04-2023]**

- Problem set: 2 – 7/8 Medium level DSA Problems

**Day: 20 (Anmol): [20-04-2023]**

- Problem set: 3 - 3/4 Hard level DSA Problems

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