1. Basic Implementation 15

Link: https://oj.masaischool.com/contest/144

Password: firstwarmupcontest

2. Basic Implementation 2 53

Link: https://oj.masaischool.com/contest/176

Password: icontest2

3. Stacks & Queues 8

Link: https://oj.masaischool.com/contest/208

Password :stacksandqueues

4. Binary Search 24

Link: https://oj.masaischool.com/contest/355

Password: 24788

- 1. Wood Cutter
- 2. Everything related to Binary Search
- 3. Discover number
- 4. Minimum in sorted & rotated array
- 5. Minimum Router range
- 6. Restaurants during pandemic
- 7. Machines at work
- 8. Coding Practice time
- 9. Search in sorted & rotated array

5. Greedy 22

Link: https://oj.masaischool.com/contest/396

- 1. Manage stacks of bricks
- 2. Addition, Subtraction and its Cost
- 3. Marathon
- 4. Lifeboats (attempt it, we will have a discussion on it as well)
- 5. Perform Swapping and Sorting
- 6. Maximum Sum & Permutation

- 7. Hostel & Warden
- 8. Steal as much as you can
- 9. Manage Bricks

6.Recursion 28

Link: https://oj.masaischool.com/contest/436

Password: 93320

- 1. Number of ways problems
- 2. Similar texts V0
- 3. 2D Array and Phrase returns
- 4. Generate all subsequence
- 5. Solve it, Provide GUI, Put on resume
- 6. N Queens Variant
- 7. Generate Permutations
- 8. Easy but recursion
- 9. Mr Robot Elliot
- 10. Follow The Knight

7. Dynamic Programming 31

Link: https://oj.masaischool.com/contest/469

- 1. Fibonacci Returns Again
- 2. Masai Monetary System
- 3. Similar texts (LCS- longest common subsequence)
- 4. 91 springboard
- 5. Party or not question returns back (Subset sum problem)
- 6. Height of trees (LIS longest increasing subsequence)
- 7. Koramangala to BTM (Minimum jump to reach end)
- 8. Again an Optimization Problem (0/1 Knapsack)
- 9. Unique ways of Coin Change (Coin change)
- 10. Money and Shopping
- 11. Arrange discs
- 12. A question on Palindrome! Again! (Longest palindromic subsequence)
- 13. Different ways as a Sum
- 14. The question with immense practical application (Minimum Edit Distance / Levenshtein distance)
- 15. Maximal rectangle in a binary matrix

8. Graphs 20

Link: https://oj.masaischool.com/contest/528

Password: 112712

Adjacency List - ArrayList of Array List <u>Graph Representation using Java ArrayList</u> Adjacency List - HashMap of HashSet

https://oj.masaischool.com/status/a7541765cafb16c1c569630d35c35b8c

- 1. No google maps in bangalore!
- 2. College Event and the CR
- 3. Return to Origin
- 4. Bipartite graph
- 5. Emergency and Hospitals
- 6. Drugs and DEA
- 7. Bangalore and its traffic!
- 8. The shortest path
- 9. Detect Cycle in a Directed Graph
- 10. Arrival & Departure

9. Binary Tree & BST 30

Link https://oj.masaischool.com/contest/547

- 1. 3 traversals preorder, ,inorder, postorder
- 2. Level order traversal
- 3. Top View of Binary Tree
- 4. Right view of binary tree
- 5. Finding the tree
- 6. Depth of a binary tree
- 7. Diameter of a binary tree
- 8. Mirror image of a binary tree
- 9. Path sum
- 10. Symmetric Binary Tree
- 11. Binary Tree Paths
- 12. K distance from a given node
- 13. Insert Node in BST
- 14. Delete Node from BST

- 15. Validate a Binary Search Tree
- 16. Lowest Common Ancestor
- 17. Largest BST

10. Linked list contest: 14

Link - https://oj.masaischool.com/contest/683
Password - 95350

11. Heaps & Priority Queues 10

Link: https://oj.masaischool.com/contest/715