

| DSA by Shradha Ma'am                              |   |  |                          |
|---|---|--|--------------------------|
| <a href="#">Meet us on Youtube (Apna College)</a> |   |  | How to solve this sheet? |
|   |   |  |                          |
| Easy  | Ideal Time : 5-10 mins  |  |                          |
| Medium  | Ideal Time : 15-20 mins   |  |                          |
| Hard  | Ideal Time : 40-60 mins (based on Qs)   88 Qs   | 5 Questions each Day   |                          |
|   |   |  |                          |
| Topics  | Question (375)  | Companies  | Remarks                  |
| Arrays  | <a href="#">Maximum and Minimum Element in an Array</a>                                     | ABCO Accolite Amazon Cisco Hike Microsoft Snapdeal VMWare Google Adobe     |                          |
| Arrays  | <a href="#">Reverse the Array</a>   | Infosys Moonfrog Labs  |                          |
| Arrays  | <a href="#">Maximum Subarray</a>  | Microsoft + Facebook Interview Qs  | use Kadane's Algorithm   |
| Arrays  | <a href="#">Contains Duplicate</a>  | Amazon Interview Qs  |                          |
| Arrays  | <a href="#">Chocolate Distribution Problem</a>  | Amazon Interview Qs  |                          |
| Arrays  | <a href="#">Search in Rotated Sorted Array</a>  | Microsoft Google Adobe Amazon D-E-Shaw Flipkart Hike Intuit MakeMyTrip P   |                          |
| Arrays  | <a href="#">Next Permutation</a>  | Uber + Goldman Sachs + Adobe Interview Qs                                  |                          |
| Arrays  | <a href="#">Best time to Buy and Sell Stock</a>   | Amazon D-E-Shaw Directi Flipkart Goldman Sachs Intuit MakeMyTrip Microsoft |                          |
| Arrays  | <a href="#">Repeat and Missing Number Array</a>   | Amazon Interview Qs  |                          |
| Arrays  | <a href="#">Kth Largest Element in an Array</a>   | Amazon Microsoft Walmart Adobe   |                          |
| Arrays  | <a href="#">Trapping Rain Water</a>   | Samsung Interview Qs   | use auxiliary arrays     |
| Arrays  | <a href="#">Product of Array Except Self</a>  | Microsoft + Facebook Interview Qs  |                          |
| Arrays  | <a href="#">Maximum Product Subarray</a>  | Amazon D-E-Shaw Microsoft Morgan Stanley OYO Rooms Google                  |                          |
| Arrays  | <a href="#">Find Minimum in Rotated Sorted Array</a>  | Adobe Amazon Microsoft Morgan Stanley Samsung Snapdeal Times Internet      |                          |
| Arrays  | <a href="#">Find Pair with Sum in Sorted &amp; Rotated Array</a>                            | Microsoft + Google + Apple Interview Qs                                    |                          |
| Arrays  | <a href="#">3Sum</a>  | Adobe Amazon Microsoft Morgan Stanley Samsung Snapdeal Times Internet      |                          |
| Arrays  | <a href="#">Container With Most Water</a>   | Flipkart + Dunzo Interview Qs  | use 2 pointer approach   |
| Arrays  | <a href="#">Given Sum Pair</a>  | Infosys + Amazon + Flipkart Interview Qs                                   |                          |
| Arrays  | <a href="#">Kth - Smallest Element</a>  | ABCO Accolite Amazon Cisco Hike Microsoft Snapdeal VMWare Google Adobe     |                          |
| Arrays  | <a href="#">Merge Overlapping Intervals</a>   | Google Interview Qs  |                          |
| Arrays  | <a href="#">Find Minimum Number of Merge Operations to Make an Array Palindrome</a>         | Amazon   |                          |
| Arrays  | <a href="#">Given an Array of Numbers Arrange the Numbers to Form the Biggest Number</a>    | Bardclays Interview Qs   |                          |
| Arrays  | <a href="#">Space Optimization Using Bit Manipulations</a>                                  | Amazon   |                          |
| Arrays  | <a href="#">Subarray Sum Divisible K</a>  | Snapdeal Microsoft   |                          |
| Arrays  | <a href="#">Print all Possible Combinations of r Elements in a Given Array of Size n</a>    | Amazon   |                          |
| Arrays  | <a href="#">Mo's Algorithm</a>  | Microsoft  |                          |
|   |   |  |                          |
| Strings   | <a href="#">Valid Palindrome</a>  | Amazon Cisco D-E-Shaw Facebook FactSet Morgan Stanley Paytm Zoho           |                          |
| Strings   | <a href="#">Valid Anagram</a>   | Nagarro Media.net Directi Google Adobe Flipkart                            |                          |
| Strings   | <a href="#">Valid parentheses</a>   | Google Interview Qs  | use Stacks (if possible) |
| Strings   | <a href="#">Remove Consecutive Characters</a>   | Samsung + Adobe  |                          |
| Strings   | <a href="#">Longest Common Prefix</a>   | Adobe + Grofers + Dunzo Interview Qs                                       |                          |
| Strings   | <a href="#">Convert a Sentence into its Equivalent Mobile Numeric Keypad Sequence</a>       | Adobe  |                          |
| Strings   | <a href="#">Print all the Duplicates in the Input String</a>                                | Ola + Amdocs IQ  |                          |
| Strings   | <a href="#">Longest Substring without Repeating Characters</a>                              | Morgan Stanley + Amazon IQ   |                          |
| Strings   | <a href="#">Longest Repeating Character Replacement</a>                                     | Amazon Google  |                          |
| Strings   | <a href="#">Group Anagrams</a>  | Samsung + Adobe + Amazon Interview Qs                                      |                          |
| Strings   | <a href="#">Longest Palindromic Substring</a>   | Microsoft + Google + Samsung + Visa IQ                                     |                          |
| Strings   | <a href="#">Palindromic Substrings</a>  | Microsoft IQ   |                          |
| Strings   | <a href="#">Next Permutation</a>  | Adobe + Goldman Sachs + Uber   |                          |
| Strings   | <a href="#">Count Palindromic Subsequences</a>  | Myntra Interview Qs  |                          |
| Strings   | <a href="#">Smallest Window in a String Containing all the Characters of Another String</a> | Microsoft + Amazon IQ  |                          |
| Strings   | <a href="#">Wildcard String Matching</a>  | Microsoft + Amazon + Ola IQ  |                          |
| Strings   | <a href="#">Longest Prefix Suffix</a>   | Flipkart + Swiggy IQ   |                          |
| Strings   | <a href="#">Rabin-Karp Algorithm for Pattern Searching</a>                                  | Microsoft  |                          |
| Strings   | <a href="#">Transform One String to Another using Minimum Number of Given Operation</a>     | Directi  |                          |
| Strings   | <a href="#">Minimum Window Substring</a>  | Amazon Google MakeMyTrip Streamoid Technologies Microsoft Media.net At     |                          |
| Strings   | <a href="#">Boyer Moore Algorithm for Pattern Searching</a>                                 | Amdocs   |                          |
| Strings   | <a href="#">Word Wrap</a>   | Microsoft  | use Dynaming Programming |
|   |   |  |                          |
| 2D Arrays   | <a href="#">Zigzag (or diagonal) Traversal of Matrix</a>                                    | Amazon   |                          |
| 2D Arrays   | <a href="#">Set Matrix Zeroes</a>   | Amazon Microsoft   |                          |
| 2D Arrays   | <a href="#">Spiral Matrix</a>   | Flipkart + Apple + Societe Generale IQ                                     |                          |
| 2D Arrays   | <a href="#">Rotate Image</a>  | Microsoft Paytm Samsung Adobe  |                          |
| 2D Arrays   | <a href="#">Word Search</a>   | Google + Ola + Goldman Sachs IQ  |                          |
| 2D Arrays   | <a href="#">Find the Number of Islands   Set 1 (Using DFS)</a>                              | Microsoft + Uber + Apple + Amazon IQ                                       | Read about DFS           |
| 2D Arrays   | <a href="#">Given a Matrix of 'O' and 'X', Replace 'O' with 'X' if Surrounded by 'X'</a>    | Google   |                          |
| 2D Arrays   | <a href="#">Find a Common Element in all Rows of a Given Row-Wise Sorted Matrix</a>         | MAQ Software Microsoft VMWare  |                          |
| 2D Arrays   | <a href="#">Create a Matrix with Alternating Rectangles of O and X</a>                      | MAQ VMWare   |                          |
| 2D Arrays   | <a href="#">Maximum Size Rectangle of all 1s</a>  | Amazon Microsoft   |                          |
|   |   |  |                          |
| Searching & Sorting                               | <a href="#">Permute Two Arrays such that Sum of Every Pair is Greater or Equal to K</a>     | Samsung  |                          |
| Searching & Sorting                               | <a href="#">counting sort</a>   | Samsung+ Morgan Stanley+ Snapdeal + EPAM Systems                           |                          |
| Searching & Sorting                               | <a href="#">find common elements three sorted arrays</a>                                    | MAQ Software Microsoft VMWare  |                          |
| Searching & Sorting                               | <a href="#">Searching in an array where adjacent differ by at most k</a>                    | TCS Amazon   |                          |
| Searching & Sorting                               | <a href="#">ceiling in a sorted array</a>   | TCS  |                          |
| Searching & Sorting                               | <a href="#">Plar with given difference</a>  | Amazon Visa  |                          |
| Searching & Sorting                               | <a href="#">majority element</a>  | Amazon+ Google   |                          |
| Searching & Sorting                               | <a href="#">count triplets with sum smaller than a given value</a>                          | Amazon SAP Labs  |                          |
| Searching & Sorting                               | <a href="#">Maximum Sum Subsequence with no adjacent elements</a>                           | Amazon FactSet Oxigen Wallet OYO Rooms Paytm Walmart Yahoo Adobe Flip      |                          |
| Searching & Sorting                               | <a href="#">Merge Sorted Arrays using O(1) Space</a>  | Amdocs Brocade Goldman Sachs Juniper Networks LinkedIn Microsoft Quikr     |                          |
| Searching & Sorting                               | <a href="#">Inversion of Array</a>  | Adobe Amazon BankBazaar Flipkart Microsoft Myntra MakeMyTrip               |                          |
| Searching & Sorting                               | <a href="#">Find Duplicates in O(n) Time and O(1) Extra Space</a>                           | Amazon D-E-Shaw Flipkart Paytm Qualcomm Zoho                               |                          |
| Searching & Sorting                               | <a href="#">Radix Sort</a>  | Amazon+ Microsoft  |                          |
| Searching & Sorting                               | <a href="#">Product of Array except itself</a>  | Accolite Amazon D-E-Shaw Intuit Morgan Stanley Opera Microsoft Flipkart    |                          |
| Searching & Sorting                               | <a href="#">Make all Array Elements Equal</a>   | Amazon   |                          |
| Searching & Sorting                               | <a href="#">Check if Reversing a Sub Array Make the Array Sorted</a>                        | Amazon   |                          |
| Searching & Sorting                               | <a href="#">Find Four Elements that Sum to a Given Value</a>                                | Adobe Amazon Google Microsoft OYO Rooms                                    |                          |
| Searching & Sorting                               | <a href="#">Median of Two Sorted Array with Different Size</a>                              | Amazon Samsung Microsoft Google  |                          |
| Searching & Sorting                               | <a href="#">Median of Stream of Integers Running Integers</a>                               | Amazon + Google  |                          |
| Searching & Sorting                               | <a href="#">Print Subarrays with 0 Sum</a>  | Paytm Adobe  |                          |
| Searching & Sorting                               | <a href="#">Aggressive Cows</a>   | Adobe  |                          |
| Searching & Sorting                               | <a href="#">Allocate Minimum number of Pages</a>  | Google Infosys Codenation Amazon Microsoft                                 |                          |
| Searching & Sorting                               | <a href="#">Minimum Swaps to Sort</a>   | Amazon + Google  |                          |
|   |   |  |                          |
| Backtracking                                      | <a href="#">Backtracking Set 2 Rat in a Maze</a>  | Microsoft Amazon   |                          |
| Backtracking                                      | <a href="#">Combinational Sum</a>   | Adobe Amazon Microsoft   |                          |
| Backtracking                                      | <a href="#">Crossword Puzzle</a>  | Microsoft  |                          |
| Backtracking                                      | <a href="#">Longest Possible Route in a Matrix with Hurdles</a>                             | Microsoft  |                          |
| Backtracking                                      | <a href="#">Printing all solutions in N-Queen Problem</a>                                   | Accolite Amazon Amdocs D-E-Shaw MAQ Software Twitter Visa Microsoft        |                          |
| Backtracking                                      | <a href="#">Solve the Sudoku</a>  | Amazon Directi Flipkart MakeMyTrip MAQ Software Microsoft Ola Cabs Orade   |                          |
| Backtracking                                      | <a href="#">Partition Equal Subset Sum</a>  | Amazon + Adobe + Accolite + Traveloka                                      |                          |
| Backtracking                                      | <a href="#">M Coloring Problem</a>  | Amazon   |                          |

|                 |   |   |           |
|-----------------|---|---|-----------|
| Backtracking    | <a href="#">Knight Tour</a>   | IBM   |           |
| Backtracking    | <a href="#">Sudoku</a>  | Amazon + Adobe + Accolite + Traveloka                                     |           |
| Backtracking    | <a href="#">Remove Invalid Parentheses</a>  | Uber  |           |
| Backtracking    | <a href="#">Word Break Problem using Backtracking</a>   |   |           |
| Backtracking    | <a href="#">Print all Palindromic Partitions of a String</a>  | Facebook Amazon Microsoft   |           |
| Backtracking    | <a href="#">Find Shortest Safe Route in a Path with Landmines</a>                                       | Facebook Amazon Microsoft   |           |
| Backtracking    | <a href="#">Partition of Set into K Subsets with Equal Sum</a>  | Amazon  |           |
| Backtracking    | <a href="#">Backtracking set-7 hamiltonian cycle</a>  | Amazon  |           |
| Backtracking    | <a href="#">tug-of-war</a>  | Google  |           |
| Backtracking    | <a href="#">Maximum Possible Number by doing at most K swaps</a>  | Amazon + Adobe + Accolite + Traveloka                                     |           |
| Backtracking    | <a href="#">Backtracking set-8 solving cryptarithmic puzzles</a>  | Goldman Sachs   |           |
| Backtracking    | <a href="#">Find paths from corner cell to middle cell in maze</a>                                      | Meta  |           |
| Backtracking    | <a href="#">Arithmetic Expressions</a>  | Flipkart  |           |
|                 |   |   |           |
| Linked List     | <a href="#">Reverse Linked List</a>   | Sprinklr  |           |
| Linked List     | <a href="#">Linked List Cycle</a>   | Accolite Amazon D-E-Shaw Hike Lybrate Mahindra Comviva MakeMyTrip MAC     |           |
| Linked List     | <a href="#">Merge Two Sorted Lists</a>  | Accolite Amazon Belzabar Brocade FactSet Flipkart MakeMyTrip Microsoft OA |           |
| Linked List     | <a href="#">Delete without Head node</a>  | Amazon Goldman Sachs Kritikal Solutions Microsoft Samsung Visa            |           |
| Linked List     | <a href="#">Remove duplicates from an unsorted linked list</a>  | Amazon Intuit   |           |
| Linked List     | <a href="#">Sort a linked list of 0s-1s-or-2s</a>   | Microsoft Amazon MakeMyTrip   |           |
| Linked List     | <a href="#">Multiply two numbers represented linked lists</a>   | Amazon  |           |
| Linked List     | <a href="#">Remove nth node from end of list</a>  | Accolite Adobe Amazon Citicorp Epic Systems FactSet Hike MAQ Software Mo  |           |
| Linked List     | <a href="#">Reorder List</a>  | Amazon Microsoft OYO Rooms Intuit   |           |
| Linked List     | <a href="#">Detect and remove loop in a linked list</a>   | Accolite Amazon D-E-Shaw Hike Lybrate Mahindra Comviva MakeMyTrip MAC     |           |
| Linked List     | <a href="#">Write a Function to get the Intersection Point of two Linked Lists</a>                      | Amazon  |           |
| Linked List     | <a href="#">Flatten a linked list with next and child pointers</a>                                      | Google  |           |
| Linked List     | <a href="#">Linked list in zig-zag fashion</a>  | Microsoft   |           |
| Linked List     | <a href="#">Reverse a doubly linked list</a>  | Walmart   |           |
| Linked List     | <a href="#">Delete nodes which have a greater value on right side</a>                                   | Amazon  |           |
| Linked List     | <a href="#">Segregate even and odd Elements in a Linked List</a>  | Walmart   |           |
| Linked List     | <a href="#">Point to next higher value node in a linked list with an Arbitrary Pointer</a>              | GeekyAnts   |           |
| Linked List     | <a href="#">Rearrange a given linked list in place</a>  | Ola Uber  |           |
| Linked List     | <a href="#">Sort Bi-tonic Doubly Linked Lists</a>   | Morgan Stanley  |           |
| Linked List     | <a href="#">Merge K Sorted Lists</a>  | Microsoft+ Ola+ eBay  |           |
| Linked List     | <a href="#">Merge sort for linked list</a>  | Accolite Adobe Amazon MAQ Software Microsoft Paytm Veritas                | Important |
| Linked List     | <a href="#">Quicksort on singly-linked list</a>   | Paytm   | Important |
| Linked List     | <a href="#">Sum of two linked lists</a>   | Accolite Amazon Flipkart MakeMyTrip Microsoft Morgan Stanley Qualcomm S   |           |
| Linked List     | <a href="#">Flattening a linked list</a>  | 24*7 Innovation Labs Amazon Drishti-Soft Flipkart Goldman Sachs Microsoft |           |
| Linked List     | <a href="#">Clone a linked list with next and random pointer</a>  | Triology  |           |
| Linked List     | <a href="#">Subtract two numbers represented as linked lists</a>  | Amazon Goldman Sachs  |           |
|                 |   |   |           |
| Stacks & Queues | <a href="#">Implement two stacks in an Array</a>  | 24*7 Innovation Labs Microsoft Samsung Snapdeal                           |           |
| Stacks & Queues | <a href="#">Evaluation of Postfix Expression</a>  | Amazon + Google + Facebook  |           |
| Stacks & Queues | <a href="#">Implement Stack using Queues</a>  | Facebook  |           |
| Stacks & Queues | <a href="#">Queue Reversal</a>  | Amazon + Morgan Stanley   |           |
| Stacks & Queues | <a href="#">Implement Stack Queue using Deque</a>   | Microsoft + Atlassian   |           |
| Stacks & Queues | <a href="#">Reverse first k elements of queue</a>   | Microsoft + Amdocs  |           |
| Stacks & Queues | <a href="#">Design Stack with Middle Operation</a>  | MAQ Software  |           |
| Stacks & Queues | <a href="#">Infix to Postfix</a>  | Amazon + Samsung + Paytm + Vmware inc.                                    |           |
| Stacks & Queues | <a href="#">Design and Implement Special stack</a>  | Amazon Google Microsoft Visa Goldman Sachs                                |           |
| Stacks & Queues | <a href="#">Longest Valid String</a>  | Google Microsoft  |           |
| Stacks & Queues | <a href="#">Find if an expression has duplicate parenthesis or not</a>                                  | Flipkart Oracle OYO Rooms Snapdeal Walmart Yatra.com Microsoft Google     |           |
| Stacks & Queues | <a href="#">Stack permutations check if an array is stack permutation of other</a>                      | Visa  |           |
| Stacks & Queues | <a href="#">Count natural numbers whose permutation greater number</a>                                  | Amazon  |           |
| Stacks & Queues | <a href="#">Sort a stack using Recursion</a>  | Amazon Goldman Sachs IBM Intuit Kuliza Yahoo Microsoft                    |           |
| Stacks & Queues | <a href="#">Queue based approach for first non repeating character in a stream</a>                      | Microsoft Flipkart  |           |
| Stacks & Queues | <a href="#">The Celebrity Problem</a>   | Google + Visa + Apple   |           |
| Stacks & Queues | <a href="#">Next larger Element</a>   | Visa  |           |
| Stacks & Queues | <a href="#">Distance of nearest cell</a>  | Flipkart + Facebook   |           |
| Stacks & Queues | <a href="#">Rotten-oranges</a>  | Facebook  |           |
| Stacks & Queues | <a href="#">Next smaller element</a>  | Codenation  |           |
| Stacks & Queues | <a href="#">Circular-tour</a>   | Codenation Flipkart   |           |
| Stacks & Queues | <a href="#">Efficiently implement k-stacks single array</a>   | Flipkart  |           |
| Stacks & Queues | <a href="#">The celebrity problem</a>   | Google + Visa + Apple   |           |
| Stacks & Queues | <a href="#">Iterative tower of hanoi</a>  | Microsoft Flipkart  |           |
| Stacks & Queues | <a href="#">Find the maximum of minimums for every window size in a given array</a>                     | Amazon Microsoft Flipkart   |           |
| Stacks & Queues | <a href="#">Lru cache implementation</a>  | Microsoft + Uber + Alibaba  |           |
| Stacks & Queues | <a href="#">Find a tour that visits all stations</a>  | Uber  |           |
|                 |   |   |           |
| Greedy          | <a href="#">Activity selection problem greedy algo</a>  | Facebook Morgan Stanley Flipkart  |           |
| Greedy          | <a href="#">Greedy algorithm to find minimum number of coins</a>  | Accolite Amazon Morgan Stanley Oracle Paytm Samsung Snapdeal Synopsys     |           |
| Greedy          | <a href="#">Minimum sum two numbers formed digits array-2</a>   | Google  |           |
| Greedy          | <a href="#">Minimum sum absolute difference pairs two arrays</a>  | Amazon  |           |
| Greedy          | <a href="#">Find maximum height pyramid from the given array of objects</a>                             | Flipkart Amazon   |           |
| Greedy          | <a href="#">Minimum cost for acquiring all coins with k extra coins allowed with every coin</a>         |   |           |
| Greedy          | <a href="#">Find maximum equal sum of every three stacks</a>  | Microsoft Amazon Flipkart   |           |
| Greedy          | <a href="#">Job sequencing problem</a>  | Microsoft + Accolite  |           |
| Greedy          | <a href="#">Greedy algorithm egyptian fraction</a>  |   |           |
| Greedy          | <a href="#">Fractional knapsack problem</a>   | Microsoft   |           |
| Greedy          | <a href="#">Maximum length chain of pairs</a>   | Amazon Microsoft  |           |
| Greedy          | <a href="#">Find smallest number with given number of digits and digit sum</a>                          | MAQ Software OYO Rooms  |           |
| Greedy          | <a href="#">Maximize sum of consecutive differences circular-array</a>                                  | Maccafe   |           |
| Greedy          | <a href="#">paper-cut minimum number squares</a>  | Google  |           |
| Greedy          | <a href="#">Lexicographically smallest array-k consecutive swaps</a>                                    | Amazon  |           |
| Greedy          | <a href="#">Problems-CHOCOLA</a>  | Flipkart  |           |
| Greedy          | <a href="#">Find minimum time to finish all jobs with given constraints</a>                             |   |           |
| Greedy          | <a href="#">Job sequencing using disjoint set union</a>   | Samsung   |           |
| Greedy          | <a href="#">Rearrange characters string such that no two adjacent are same</a>                          | Amazon Microsoft  |           |
| Greedy          | <a href="#">Minimum edges to reverse to make path from a source to a destination</a>                    |   |           |
| Greedy          | <a href="#">Minimize Cash Flow among a given set of friends who have borrowed money from each other</a> |   |           |
| Greedy          | <a href="#">Minimum Cost to cut a board into squares</a>  | Maccafe   |           |
|                 |   |   |           |
| Binary Trees    | <a href="#">Maximum Depth of Binary Tree</a>  | Amazon Cadence India CouponDunia D-E-Shaw FactSet FreeCharge MakeMy       |           |
| Binary Trees    | <a href="#">Reverse Level Order Traversal</a>   | Amazon + Microsoft + Flipkart + Adobe                                     |           |
| Binary Trees    | <a href="#">Subtree of Another Tree</a>   | Amazon + Microsoft + Facebook   |           |
| Binary Trees    | <a href="#">Invert Binary Tree</a>  | Amazon Hike   |           |
| Binary Trees    | <a href="#">Binary Tree Level Order Traversal</a>   | Accolite Adobe Amazon Cisco D-E-Shaw Flipkart                             |           |
| Binary Trees    | <a href="#">Left View of Binary Tree</a>  | Microsoft + Adobe + Cisco Networking Academy                              |           |
| Binary Trees    | <a href="#">Right View of Binary Tree</a>   | Amdocs  |           |
| Binary Trees    | <a href="#">ZigZag Tree Traversal</a>   | Amazon Cisco FactSet Hike Snapdeal Walmart Microsoft Flipkart             |           |
| Binary Trees    | <a href="#">Create a mirror tree from the given binary tree</a>   | Accolite Adobe Amazon Belzabar eBay Goldman Sachs Microsoft Morgan Sta    |           |
| Binary Trees    | <a href="#">Leaf at same level</a>  | Amazon  |           |
| Binary Trees    | <a href="#">Check for Balanced Tree</a>   | Amazon Walmart Microsoft  |           |
| Binary Trees    | <a href="#">Transform to Sum Tree</a>   | Amazon FactSet Microsoft Samsung Walmart                                  |           |

|                     |  |  |           |
|---------------------|--|--|-----------|
| Binary Trees        | <a href="#">Check if Tree is Isomorphic</a>  | Amazon Microsoft   |           |
| Binary Trees        | <a href="#">Same Tree</a>  | Amazon Microsoft Flipkart  |           |
| Binary Trees        | <a href="#">Construct Binary Tree from Preorder and Inorder Traversal</a>                        | Accolite Amazon Microsoft  |           |
| Binary Trees        | <a href="#">Height of Binary Tree</a>  | Amazon Cadence India CouponDunia D-E-Shaw FactSet FreeCharge MakeMyTrip        |           |
| Binary Trees        | <a href="#">Diameter of a Binary Tree</a>  | Amazon Microsoft OYO Rooms   |           |
| Binary Trees        | <a href="#">Top View of Binary Tree</a>  | Microsoft + Adobe + Expedia Group  |           |
| Binary Trees        | <a href="#">Bottom View of Binary Tree</a>   | DE Shaw India  |           |
| Binary Trees        | <a href="#">Diagonal Traversal of Binary Tree</a>  | Amazon Microsoft   |           |
| Binary Trees        | <a href="#">Boundary Traversal of binary tree</a>  | Accolite Amazon FactSet Hike Kritikal Solutions                                |           |
| Binary Trees        | <a href="#">Construct Binary Tree from String with Brackets</a>                                  | Microsoft Morgan Stanley OYO Rooms Payu Samsung Snapdeal Flipkart              |           |
| Binary Trees        | <a href="#">Minimum swap required to convert binary tree to binary search tree</a>               | Adobe Amazon   |           |
| Binary Trees        | <a href="#">Duplicate subtree in Binary Tree</a>   | Google   |           |
| Binary Trees        | <a href="#">Check if a given graph is tree or not</a>  | Microsoft Amazon   |           |
| Binary Trees        | <a href="#">Lowest Common Ancestor in a Binary Tree</a>  | Accolite Amazon American Express Cisco Expedia Flipkart MakeMyTrip Microsoft   |           |
| Binary Trees        | <a href="#">Min distance between two given nodes of a Binary Tree</a>                            | Amazon LinkedIn MakeMyTrip Ola Cabs Qualcomm Samsung                           |           |
| Binary Trees        | <a href="#">Duplicate Subtrees</a>   | Ola  |           |
| Binary Trees        | <a href="#">Kth ancestor of a node in binary tree</a>  | Josh Technology Group  |           |
| Binary Trees        | <a href="#">Binary Tree Maximum Path Sum</a>   | Samsung + Facebook   |           |
| Binary Trees        | <a href="#">Serialize and Deserialize Binary Tree</a>  | Flipkart InMobi LinkedIn MAQ Software Microsoft Paytm Quikr Yahoo              |           |
| Binary Trees        | <a href="#">Binary Tree to DLL</a>   | Accolite Amazon Goldman Sachs Microsoft Morgan Stanley Salesforce Snapdeal     |           |
| Binary Trees        | <a href="#">Print all k-sum paths in a binary tree</a>   | Accolite Amazon Goldman Sachs  |           |
|                     |  |  |           |
| Binary Search Trees | <a href="#">Lowest Common Ancestor of a Binary Search Tree</a>                                   | Accolite Amazon Flipkart MAQ Software Microsoft Samsung Synopsys               |           |
| Binary Search Trees | <a href="#">Binary Search Tree   Set 1 (Search and Insertion)</a>                                | Accolite Amazon Microsoft Paytm Samsung  |           |
| Binary Search Trees | <a href="#">Minimum element in BST</a>   | Microsoft  |           |
| Binary Search Trees | <a href="#">Predecessor and Successor</a>  | Google + Adobe + Goldman Sachs + Direct  |           |
| Binary Search Trees | <a href="#">Check whether BST contains Dead End</a>  | Walmart  |           |
| Binary Search Trees | <a href="#">Binary Tree to BST</a>   | HSBC   |           |
| Binary Search Trees | <a href="#">Kth largest element in BST</a>   | Accolite Amazon Samsung SAP Labs Microsoft                                     |           |
| Binary Search Trees | <a href="#">Validate Binary Search Tree</a>  | OYO Rooms Qualcomm Samsung Snapdeal VMware Walmart Wooker Amazon               |           |
| Binary Search Trees | <a href="#">Kth Smallest Element in a BST</a>  | Accolite Amazon Google   |           |
| Binary Search Trees | <a href="#">Delete Node in a BST</a>   | Adobe Bardays  |           |
| Binary Search Trees | <a href="#">Flatten BST to sorted list</a>   | Microsoft  |           |
| Binary Search Trees | <a href="#">Preorder to Postorder</a>  | Amazon LinkedIn Flipkart   |           |
| Binary Search Trees | <a href="#">Count BST nodes that lie in a given range</a>  | D-E-Shaw Google  |           |
| Binary Search Trees | <a href="#">Populate Inorder Successor for all Nodes</a>   | Sap Labs   |           |
| Binary Search Trees | <a href="#">Convert Normal BST to Balanced BST</a>   | Paytm  |           |
| Binary Search Trees | <a href="#">Merge two BSTs</a>   | DE Shaw India  |           |
| Binary Search Trees | <a href="#">Given n appointments, find all conflicting appointments</a>                          | Samsung  |           |
| Binary Search Trees | <a href="#">Replace every element</a>  | Samsung  |           |
| Binary Search Trees | <a href="#">Construct BST from given preorder traversal</a>                                      | Adobe Morgan Stanley Microsoft   |           |
| Binary Search Trees | <a href="#">Find median of BST in O(n) time and O(1) space</a>                                   | Amazon   |           |
| Binary Search Trees | <a href="#">Largest BST in a Binary Tree</a>   | Amazon D-E-Shaw Samsung Microsoft Flipkart                                     | Important |
|                     |  |  |           |
| Heaps & Hashing     | <a href="#">Choose k array elements such that difference of maximum and minimum is minimized</a> |  |           |
| Heaps & Hashing     | <a href="#">Heap Sort</a>  | Adobe  |           |
| Heaps & Hashing     | <a href="#">Top K Frequent Elements</a>  | Amazon Microsoft   |           |
| Heaps & Hashing     | <a href="#">k largest elements in an array</a>   | Amazon Microsoft Walmart Adobe   |           |
| Heaps & Hashing     | <a href="#">Next Greater Element</a>   | Amazon + Microsoft + Flipkart + Adobe  |           |
| Heaps & Hashing     | <a href="#">K'th Smallest/Largest Element in Unsorted Array</a>                                  | ABCO Accolite Amazon Cisco Hike Microsoft Snapdeal VMware Google Adobe         |           |
| Heaps & Hashing     | <a href="#">Find the maximum repeating number in O(n) time and O(1) extra space</a>              | Accolite Amazon  |           |
| Heaps & Hashing     | <a href="#">K-th smallest element after removing some integers from natural numbers</a>          | ABCO Accolite Amazon Cisco Hike Microsoft Snapdeal VMware Google Adobe         |           |
| Heaps & Hashing     | <a href="#">Find k closest elements to a given value</a>   | Amazon OYO Rooms   |           |
| Heaps & Hashing     | <a href="#">K'th largest element in a stream</a>   | Amazon Cisco Hike OYO Rooms Walmart Microsoft Flipkart                         |           |
| Heaps & Hashing     | <a href="#">Connect Ropes</a>  | Amazon + Oyo + Goldman Sachs   |           |
| Heaps & Hashing     | <a href="#">Cuckoo Hashing</a>   | Amazon   |           |
| Heaps & Hashing     | <a href="#">Itinerary from a List of Tickets</a>   | Microsoft + Ola + eBay   |           |
| Heaps & Hashing     | <a href="#">Largest Subarray with 0 Sum</a>  | Amazon MakeMyTrip Microsoft  |           |
| Heaps & Hashing     | <a href="#">Count distinct elements in every window of size k</a>                                | Accolite Amazon Microsoft  |           |
| Heaps & Hashing     | <a href="#">Group Shifted Strings</a>  | Oracle   |           |
| Heaps & Hashing     | <a href="#">Merge K Sorted Lists</a>   | Microsoft + Ola + eBay   |           |
| Heaps & Hashing     | <a href="#">Find Median from Data Stream</a>   | Adobe Amazon Apple Belzabar D-E-Shaw Facebook Flipkart Google Intuit Microsoft |           |
| Heaps & Hashing     | <a href="#">Sliding Window Maximum</a>   | Amazon Directi Flipkart Microsoft Google                                       |           |
| Heaps & Hashing     | <a href="#">Find the smallest positive number</a>  | Accolite Amazon Samsung Snapdeal   |           |
| Heaps & Hashing     | <a href="#">Find Surpasser Count of each element in array</a>                                    | Amazon Morgan Stanley Ola Cabs SAP Labs  |           |
| Heaps & Hashing     | <a href="#">Tournament Tree and Binary Heap</a>  | Amazon Ola Cabs Samsung Synopsys Walmart Microsoft                             |           |
| Heaps & Hashing     | <a href="#">Check for palindrome</a>   | Amazon Cisco D-E-Shaw Facebook FactSet Morgan Stanley Paytm Zoho               |           |
| Heaps & Hashing     | <a href="#">Length of the largest subarray with contiguous elements</a>                          | Amazon Intuit Microsoft  |           |
| Heaps & Hashing     | <a href="#">Palindrome Substring Queries</a>   | Amazon Morgan Stanley Ola Cabs SAP Labs  |           |
| Heaps & Hashing     | <a href="#">Subarray distinct elements</a>   | Microsoft + Ola + eBay   |           |
| Heaps & Hashing     | <a href="#">Find the recurring function</a>  | MAQ Software   |           |
| Heaps & Hashing     | <a href="#">K maximum sum combinations from two arrays</a>                                       | Amazon   |           |
|                     |  |  |           |
| Graphs              | <a href="#">BFS</a>  | Samsung + Delhivery + SAP Labs   |           |
| Graphs              | <a href="#">DFS</a>  | Samsung + Intuit + Goldman Sachs   |           |
| Graphs              | <a href="#">Flood Fill Algorithm</a>   | Google + Adobe + Apple   |           |
| Graphs              | <a href="#">Number of Triangles</a>  | IBM  |           |
| Graphs              | <a href="#">Detect cycle in a graph</a>  | Lenksart   |           |
| Graphs              | <a href="#">Detect cycle in an undirected graph</a>  | Samsung  |           |
| Graphs              | <a href="#">Rat in a Maze Problem</a>  | Sharechat + Directi  |           |
| Graphs              | <a href="#">Steps by Knight</a>  | Samsung  |           |
| Graphs              | <a href="#">Clone graph</a>  | Google + MAQ Software + Apple + Facebook                                       |           |
| Graphs              | <a href="#">Number of Operations to Make Network Connected</a>                                   | Samsung  |           |
| Graphs              | <a href="#">Dijkstra's shortest path algorithm</a>   | Amazon   |           |
| Graphs              | <a href="#">Topological Sort</a>   | Amazon + Google + Flipkart + Oyo + Flipkart + Samsung                          |           |
| Graphs              | <a href="#">Oliver and the Game</a>  | Sharechat + Directi  |           |
| Graphs              | <a href="#">Minimum time taken by each job to be completed given by a Directed Acyclic Graph</a> | Amazon   |           |
| Graphs              | <a href="#">Find whether it is possible to finish all tasks or not from given dependencies</a>   | Directi + Sharechat  |           |
| Graphs              | <a href="#">Find the number of islands</a>   | Razorpay   |           |
| Graphs              | <a href="#">Prim's Algo</a>  | Visa   |           |
| Graphs              | <a href="#">Negative Weighted Cycle</a>  | Amazon   |           |
| Graphs              | <a href="#">Floyd Warshall</a>   | Google + Uber  |           |
| Graphs              | <a href="#">Graph Coloring</a>   | Morgan Stanley   |           |
| Graphs              | <a href="#">Snakes and Ladders</a>   | Goldman Sachs + Makemytrip   |           |
| Graphs              | <a href="#">Kosaraju's Theorem</a>   | Paytm  |           |
| Graphs              | <a href="#">Journey to moon</a>  | Lenksart + Payload   |           |
| Graphs              | <a href="#">Vertex Cover</a>   | Intuit   |           |
| Graphs              | <a href="#">M Coloring Problem</a>   | Uber   |           |
| Graphs              | <a href="#">Cheapest Flights Within K Stops</a>  | Uber + Paypal  |           |
| Graphs              | <a href="#">Find if there is a path of more than k length from a source</a>                      | Cisco + Intuit   |           |
| Graphs              | <a href="#">Bellman Ford</a>   | Sharechat + Directi  |           |
| Graphs              | <a href="#">Bipartite Graph</a>  | Microsoft Flipkart   |           |
| Graphs              | <a href="#">Word-Ladder</a>  | Microsoft  |           |
| Graphs              | <a href="#">Allen Dictionary</a>   | Samsung  |           |

|                  |   |   |           |
|------------------|---|---|-----------|
| Graphs           | <a href="#">Kruskals MST</a>  | Amazon Cisco Samsung  | Important |
| Graphs           | <a href="#">Total number spanning trees graph</a>   | Amazon Cisco Samsung Microsoft Flipkart                                     |           |
| Graphs           | <a href="#">Travelling Salesman</a>   | Google + Microsoft + Opera  | Important |
| Graphs           | <a href="#">Find longest path directed acyclic graph</a>                                    | Google  |           |
| Graphs           | <a href="#">Two Clique Problem</a>  | Microsoft   |           |
| Graphs           | <a href="#">Minimise the cash flow</a>  | Intuit + Uber   |           |
| Graphs           | <a href="#">Chinese postman</a>   | Intuit  |           |
| Graphs           | <a href="#">Water Jug</a>   | Intuit + Uber   |           |
| Graphs           | <a href="#">Water Jug 2</a>   | MakeMyTrip MAQ Software   |           |
|                  |   |   |           |
| Tries            | <a href="#">Construct a trie from scratch</a>   | Accolite Amazon D-E-Shaw FactSet Microsoft                                  |           |
| Tries            | <a href="#">Print unique rows in a given boolean matrix</a>                                 | Amazon Zoho   |           |
| Tries            | <a href="#">Word Break Problem I (Trie solution)</a>  | Amazon Google Hike IBM MAQ Software Microsoft Walmart Zoho                  |           |
| Tries            | <a href="#">Given a sequence of words, print all anagrams together</a>                      | Amazon D-E-Shaw Goldman Sachs Morgan Stanley Snapdeal Microsoft             |           |
| Tries            | <a href="#">Find shortest unique prefix for every word in a given list</a>                  | Microsoft Google  |           |
| Tries            | <a href="#">Implement a Phone Directory</a>   | Amazon + Microsoft + Snapdeal   |           |
|                  |   |   |           |
| DP               | <a href="#">Knapsack with Duplicate Items</a>   | Amazon  |           |
| DP               | <a href="#">BBT counter</a>   | Microsoft   |           |
| DP               | <a href="#">Reach a given score</a>   | Samsung   |           |
| DP               | <a href="#">Maximum difference of zeros and ones in binary string</a>                       | Ola   |           |
| DP               | <a href="#">Climbing Stairs</a>   | Intuit  |           |
| DP               | <a href="#">Permutation Coefficient</a>   | Amazon  |           |
| DP               | <a href="#">Longest Repeating Subsequence</a>   | Google + Amazon   |           |
| DP               | <a href="#">Pairs with specific difference</a>  | Ola   |           |
| DP               | <a href="#">Longest subsequence-1</a>   | Amazon  |           |
| DP               | <a href="#">Coin Change</a>   | Microsoft+ Samsung + Bardays + Apple + Adobe                                |           |
| DP               | <a href="#">LIS</a>   | Amazon + Google + Facebook + Fidelity International                         |           |
| DP               | <a href="#">Longest Common Subsequence</a>  | Siemens + Amazon + Google   |           |
| DP               | <a href="#">Word Break</a>  | Amazon + Google + Microsoft + Walmart + Apple + IBM                         |           |
| DP               | <a href="#">Combination Sum IV</a>  | Adobe Amazon Microsoft  |           |
| DP               | <a href="#">House Robber</a>  | Apple + Uber  |           |
| DP               | <a href="#">House Robber 2</a>  | Arrays Dynamic Programming  |           |
| DP               | <a href="#">Decode Ways</a>   | Adobe + Uber  |           |
| DP               | <a href="#">Unique Paths</a>  | Google + Microsoft  |           |
| DP               | <a href="#">Jumps Game</a>  | Facebook Amazon Microsoft Google  |           |
| DP               | <a href="#">Knapsack Problem</a>  | Amazon Directi Flipkart GreyOrange Microsoft Mobicip Morgan Stanley Oracle  |           |
| DP               | <a href="#">nC<sub>r</sub></a>  | Google  |           |
| DP               | <a href="#">Catalan Number</a>  | Amazon + Google   |           |
| DP               | <a href="#">Edit Distance</a>   | Google + Goldman Sachs + Citrix   |           |
| DP               | <a href="#">Subset Sum</a>  | Amazon + Google   |           |
| DP               | <a href="#">Gold mine</a>   | Samsung   |           |
| DP               | <a href="#">Assembly Line Scheduling</a>  | Goldman Sachs   |           |
| DP               | <a href="#">Maximize The Cut Segments</a>   | Amazon OYO Rooms Microsoft  |           |
| DP               | <a href="#">Maximum sum increasing subsequence</a>  | Amazon Morgan Stanley Microsoft   |           |
| DP               | <a href="#">Count all subsequences having product less than K</a>                           | Goldman Sachs   |           |
| DP               | <a href="#">Maximum sum increasing subsequence</a>  | Amazon Morgan Stanley Microsoft   |           |
| DP               | <a href="#">Egg dropping puzzle</a>   | Amazon D-E-Shaw Goldman Sachs Google Hike MakeMyTrip MAQ Software Microsoft |           |
| DP               | <a href="#">Max length chain</a>  | Amazon Microsoft  |           |
| DP               | <a href="#">Largest Square in Matrix</a>  | Amazon Samsung  |           |
| DP               | <a href="#">Maximum Path Sum</a>  | Amazon + Microsoft + Oyo + Directi  |           |
| DP               | <a href="#">Minimum Number of Jumps</a>   | Adobe Amazon Housing.com Moonfrog Labs Walmart Microsoft Google Flipkart    |           |
| DP               | <a href="#">Minimum removals from array to make max - min &lt;= K</a>                       | Amazon  |           |
| DP               | <a href="#">Longest Common Substring</a>  | Webarch Club  |           |
| DP               | <a href="#">Partition Equal Subset Sum</a>  | Amazon + Accolite + Traveloka + Adobe                                       |           |
| DP               | <a href="#">Longest Palindromic Subsequence</a>   | Amazon Google   |           |
| DP               | <a href="#">Count Palindromic Subsequences</a>  | Myntra  |           |
| DP               | <a href="#">Longest Palindromic Substring</a>   | Amazon + Microsoft + Samsung + Visa   |           |
| DP               | <a href="#">Longest Alternating Sequence</a>  | Ola   |           |
| DP               | <a href="#">Weighted Job Scheduling</a>   | Intuit  |           |
| DP               | <a href="#">Coin Game</a>   | Salesforce  |           |
| DP               | <a href="#">Coin Game Winner</a>  | Ola   |           |
| DP               | <a href="#">Optimal Strategy for a game</a>   | Google + IBM  |           |
| DP               | <a href="#">Word Wrap</a>   | Microsoft   |           |
| DP               | <a href="#">Mobile numeric keypad</a>   | Amazon Microsoft  |           |
| DP               | <a href="#">Maximum Length of Pair Chain</a>  | Amazon Microsoft  |           |
| DP               | <a href="#">Matrix Chain Multiplication</a>   | Walmart + Flipkart  |           |
| DP               | <a href="#">Maximum profit by buying and selling a share at most twice</a>                  | Accolite Amazon Microsoft   |           |
| DP               | <a href="#">Optimal BST</a>   | Google  |           |
| DP               | <a href="#">Largest Submatrix with sum 0</a>  | Amazon MakeMyTrip Microsoft   |           |
| DP               | <a href="#">Largest area rectangular sub-matrix with equal number of 1's and 0's</a>        | Amazon Directi Intuit MakeMyTrip Microsoft Samsung Google Flipkart          |           |
|                  |   |   |           |
| Bit Manipulation | <a href="#">Count set bits in an integer</a>  | Adobe Apple   |           |
| Bit Manipulation | <a href="#">Find the two non-repeating elements in an array of repeating elements</a>       | Accolite Amazon FactSet Google MakeMyTrip Microsoft Qualcomm Samsung        |           |
| Bit Manipulation | <a href="#">Program to find whether a no is power of two</a>                                | Adobe   |           |
| Bit Manipulation | <a href="#">Find position of the only set bit</a>   | Microsoft   |           |
| Bit Manipulation | <a href="#">Count number of bits to be flipped to convert A to B</a>                        | MAQ Software  |           |
| Bit Manipulation | <a href="#">Count total set bits in all numbers from 1 to n</a>                             | Microsoft   |           |
| Bit Manipulation | <a href="#">Copy set bits in a range</a>  | Facebook  |           |
| Bit Manipulation | <a href="#">Calculate square of a number without using *, / and pow()</a>                   | Amazon  |           |
| Bit Manipulation | <a href="#">Divide two integers without using multiplication, division and mod operator</a> | Microsoft   |           |
| Bit Manipulation | <a href="#">Power Set</a>   | Google + Adobe + Paytm  |           |
|                  |   |   |           |
| Segment Trees    | <a href="#">Range Sum Query - Immutable</a>   |   |           |
| Segment Trees    | <a href="#">Range Minimum Query</a>   | Google Interview Qs   |           |
| Segment Trees    | <a href="#">Range Sum Query - Mutable</a>   | Alibaba   |           |
| Segment Trees    | <a href="#">Create Sorted Array through Instructions</a>                                    | Samsung + Accolite  |           |
| Segment Trees    | <a href="#">Count of Range Sum</a>  | Walmart   |           |
| Segment Trees    | <a href="#">Count of Smaller Numbers After Self</a>   | Codenation Google   |           |