





















# DSA Revision Content



## How to use this document?

Watch this quick video for a detailed guide: <https://bit.ly/dsa-onestop-video>

### A. Quick Revision Topics

Topic	Revision Material	Videos	Important Questions & Links
Arrays	 Revision Part 1: Arrays	 Arrays	1. Equilibrium index of an array 2. Rain water trapped
Bit Manipulation	 Bit Manipulation	 bits.mp4	1. Single Number 2 2. Single Number 3
Sorting	 Sorting	 Sorting1.mov  Sorting 2.mov	1. Merge Sort 2. B closest Point to Origin [Custom comparator]
Binary Search	 Binary Search	 Binary Search	1. Rotated Sorted Array Search 2. Painters Partition Problem
HashMap	 Hashing:		1. Longest Subarray Zero Sum
Stacks	 Stacks	 Stacks.mp4	1. Balanced Parenthesis 2. Largest rectangle in histogram 3. <a href="#">LINK</a>
Trees	 Trees	 Binary Trees	1. Zig Zag Level order 2. Binary Tree from In and Preorder 3. Diameter of Binary Tree 4. <a href="#">LINK</a>
LinkedLists	 LinkedList	 Linked List.m...	1. Remove Loop from Linked List 2. <a href="#">LINK</a>
Dynamic Programming	 Dynamic Programming	 DP	1. 0-1 Knapsack 2. Fibonacci Sequence 3. N Stairs
Graph	 Graph		1. <a href="#">LINK</a>
Heaps	 Heaps		1. K Places Apart 2. <a href="#">LINK</a>
Greedy			1. <a href="#">LINK</a>

## B. Quick Practice Test & Material Access

Additional Resources	
Sample Question List for Mock Interview	 Sample Question List for Mock Interview
Demo DSA Mock Interview	<a href="https://bit.ly/3T8XZnx">https://bit.ly/3T8XZnx</a>
Upcoming TCT Details	 Upcoming TCT Details
How to find particular assignment questions?	<a href="https://rb.gy/2e74f">https://rb.gy/2e74f</a>

## C. Instructor Led Revision Sessions

Recorded Revision Sessions	
Greedy, Heaps, Backtracking	<a href="#">LINK</a>
Tree & LinkedList	<a href="#">LINK</a>
Sorting and Searching	<a href="#">LINK</a>
Graphs	<a href="#">LINK</a>
Dynamic Programming	<a href="#">LINK</a>
DSA 1 & 2	<a href="#">LINK</a>
DSA 3 & 4	<a href="#">LINK</a>
Complete DSA Revision	<a href="#">LINK</a>

## D. 100 Sample Questions - Topic Wise

Arrays	
Find Perfect Numbers	<a href="http://www.scaler.com/academy/mentee/problems/29084">www.scaler.com/academy/mentee/problems/29084</a>
Array Rotation	<a href="http://www.scaler.com/academy/mentee/problems/29098">www.scaler.com/academy/mentee/problems/29098</a>
Range Sum Query - II	<a href="http://www.scaler.com/academy/mentee/problems/27366">www.scaler.com/academy/mentee/problems/27366</a>
Equilibrium index of an array	<a href="http://www.scaler.com/academy/mentee/problems/12826">www.scaler.com/academy/mentee/problems/12826</a>
Product array puzzle	<a href="http://www.scaler.com/academy/mentee/problems/4103">www.scaler.com/academy/mentee/problems/4103</a>
Closest MinMax	<a href="http://www.scaler.com/academy/mentee/problems/986">www.scaler.com/academy/mentee/problems/986</a>
Bulbs	<a href="http://www.scaler.com/academy/mentee/problems/16728">www.scaler.com/academy/mentee/problems/16728</a>
Pick from both sides!	<a href="http://www.scaler.com/academy/mentee/problems/9900">www.scaler.com/academy/mentee/problems/9900</a>
Generate all subarrays	<a href="http://www.scaler.com/academy/mentee/problems/26732">www.scaler.com/academy/mentee/problems/26732</a>
Sum of All Subarrays	<a href="http://www.scaler.com/academy/mentee/problems/14363">www.scaler.com/academy/mentee/problems/14363</a>
Alternating Subarrays Easy	<a href="http://www.scaler.com/academy/mentee/problems/16123">www.scaler.com/academy/mentee/problems/16123</a>
Rotate Matrix	<a href="http://www.scaler.com/academy/mentee/problems/55">www.scaler.com/academy/mentee/problems/55</a>
Anti Diagonals	<a href="http://www.scaler.com/academy/mentee/problems/293">www.scaler.com/academy/mentee/problems/293</a>
Subarray with given sum and length	<a href="http://www.scaler.com/academy/mentee/problems/30351">www.scaler.com/academy/mentee/problems/30351</a>
Length of longest consecutive ones	<a href="http://www.scaler.com/academy/mentee/problems/4256">www.scaler.com/academy/mentee/problems/4256</a>
Majority Element	<a href="http://www.scaler.com/academy/mentee/problems/41388">www.scaler.com/academy/mentee/problems/41388</a>
Special Index	<a href="http://www.scaler.com/academy/mentee/problems/12828">www.scaler.com/academy/mentee/problems/12828</a>
Max Sum Contiguous Subarray	<a href="http://www.scaler.com/academy/mentee/problems/56">www.scaler.com/academy/mentee/problems/56</a>
Sum of all Submatrices	<a href="http://www.scaler.com/academy/mentee/problems/4091">www.scaler.com/academy/mentee/problems/4091</a>
Search in a row wise and column wise sorted matrix	<a href="http://www.scaler.com/academy/mentee/problems/4092">www.scaler.com/academy/mentee/problems/4092</a>
Rain water trapped	<a href="http://www.scaler.com/academy/mentee/problems/47">www.scaler.com/academy/mentee/problems/47</a>
Merge Intervals	<a href="http://www.scaler.com/academy/mentee/problems/58">www.scaler.com/academy/mentee/problems/58</a>
First Missing Integer	<a href="http://www.scaler.com/academy/mentee/problems/65">www.scaler.com/academy/mentee/problems/65</a>
Container With Most Water	<a href="http://www.scaler.com/academy/mentee/problems/169">www.scaler.com/academy/mentee/problems/169</a>
Bit Manipulation	
Single Number 2	<a href="http://www.scaler.com/academy/mentee/problems/195">www.scaler.com/academy/mentee/problems/195</a>
Single Number 3	<a href="http://www.scaler.com/academy/mentee/problems/9184">www.scaler.com/academy/mentee/problems/9184</a>
Maximum AND Pair	<a href="http://www.scaler.com/academy/mentee/problems/19558">www.scaler.com/academy/mentee/problems/19558</a>
Maths	

Delete one	<a href="http://www.scaler.com/academy/mentee/problems/9103">www.scaler.com/academy/mentee/problems/9103</a>
Pubg	<a href="http://www.scaler.com/academy/mentee/problems/9104">www.scaler.com/academy/mentee/problems/9104</a>
Find All Primes	<a href="http://www.scaler.com/academy/mentee/problems/35398">www.scaler.com/academy/mentee/problems/35398</a>
Count of Divisors	<a href="http://www.scaler.com/academy/mentee/problems/4107">www.scaler.com/academy/mentee/problems/4107</a>
Sorted Permutation Rank	<a href="http://www.scaler.com/academy/mentee/problems/317">www.scaler.com/academy/mentee/problems/317</a>
Excel Column Title	<a href="http://www.scaler.com/academy/mentee/problems/76">www.scaler.com/academy/mentee/problems/76</a>
<b>Sorting</b>	
Inversion count in an array	<a href="http://www.scaler.com/academy/mentee/problems/4190">www.scaler.com/academy/mentee/problems/4190</a>
Unique Elements	<a href="http://www.scaler.com/academy/mentee/problems/26673">www.scaler.com/academy/mentee/problems/26673</a>
B Closest Points to Origin	<a href="http://www.scaler.com/academy/mentee/problems/4194">www.scaler.com/academy/mentee/problems/4194</a>
Sum the Difference	<a href="http://www.scaler.com/academy/mentee/problems/453">www.scaler.com/academy/mentee/problems/453</a>
Maximum Unsorted Subarray	<a href="http://www.scaler.com/academy/mentee/problems/359">www.scaler.com/academy/mentee/problems/359</a>
<b>Hashing</b>	
Pairs with given sum II	<a href="http://www.scaler.com/academy/mentee/problems/5097">www.scaler.com/academy/mentee/problems/5097</a>
Sub-array with 0 sum	<a href="http://www.scaler.com/academy/mentee/problems/4202">www.scaler.com/academy/mentee/problems/4202</a>
Longest Consecutive Sequence	<a href="http://www.scaler.com/academy/mentee/problems/152">www.scaler.com/academy/mentee/problems/152</a>
First non-repeating character	<a href="http://www.scaler.com/academy/mentee/problems/4365">www.scaler.com/academy/mentee/problems/4365</a>
Longest Subarray Zero Sum	<a href="http://www.scaler.com/academy/mentee/problems/27742">www.scaler.com/academy/mentee/problems/27742</a>
<b>Binary Search</b>	
Find a peak element	<a href="http://www.scaler.com/academy/mentee/problems/4132">www.scaler.com/academy/mentee/problems/4132</a>
Rotated Sorted Array Search	<a href="http://www.scaler.com/academy/mentee/problems/203">www.scaler.com/academy/mentee/problems/203</a>
Median of Array	<a href="http://www.scaler.com/academy/mentee/problems/198">www.scaler.com/academy/mentee/problems/198</a>
Ath Magical Number	<a href="http://www.scaler.com/academy/mentee/problems/5697">www.scaler.com/academy/mentee/problems/5697</a>
Painter's Partition Problem	<a href="http://www.scaler.com/academy/mentee/problems/271">www.scaler.com/academy/mentee/problems/271</a>
<b>LinkedList</b>	
Reverse Linked List	<a href="http://www.scaler.com/academy/mentee/problems/40">www.scaler.com/academy/mentee/problems/40</a>
Remove Loop from Linked List	<a href="http://www.scaler.com/academy/mentee/problems/4226">www.scaler.com/academy/mentee/problems/4226</a>
Longest Palindromic List	<a href="http://www.scaler.com/academy/mentee/problems/4386">www.scaler.com/academy/mentee/problems/4386</a>
Palindrome List	<a href="http://www.scaler.com/academy/mentee/problems/331">www.scaler.com/academy/mentee/problems/331</a>
LRU Cache	<a href="http://www.scaler.com/academy/mentee/problems/239">www.scaler.com/academy/mentee/problems/239</a>
Reorder List	<a href="http://www.scaler.com/academy/mentee/problems/33">www.scaler.com/academy/mentee/problems/33</a>
Add Two Numbers as Lists	<a href="http://www.scaler.com/academy/mentee/problems/38">www.scaler.com/academy/mentee/problems/38</a>
<b>Stack and Queue</b>	

Evaluate Expression	<a href="http://www.scaler.com/academy/mentee/problems/46">www.scaler.com/academy/mentee/problems/46</a>
Double Character Trouble	<a href="http://www.scaler.com/academy/mentee/problems/968">www.scaler.com/academy/mentee/problems/968</a>
Largest Rectangle in Histogram	<a href="http://www.scaler.com/academy/mentee/problems/49">www.scaler.com/academy/mentee/problems/49</a>
MAX and MIN	<a href="http://www.scaler.com/academy/mentee/problems/7042">www.scaler.com/academy/mentee/problems/7042</a>
Sliding Window Maximum	<a href="http://www.scaler.com/academy/mentee/problems/85621">www.scaler.com/academy/mentee/problems/85621</a>
<b>Trees</b>	
Right View of Binary tree	<a href="http://www.scaler.com/academy/mentee/problems/5714">www.scaler.com/academy/mentee/problems/5714</a>
Vertical Order traversal	<a href="http://www.scaler.com/academy/mentee/problems/378">www.scaler.com/academy/mentee/problems/378</a>
Largest BST Subtree	<a href="http://www.scaler.com/academy/mentee/problems/4857">www.scaler.com/academy/mentee/problems/4857</a>
Valid Binary Search Tree	<a href="http://www.scaler.com/academy/mentee/problems/221">www.scaler.com/academy/mentee/problems/221</a>
Recover Binary Search Tree	<a href="http://www.scaler.com/academy/mentee/problems/216">www.scaler.com/academy/mentee/problems/216</a>
Morris Inorder Traversal	<a href="http://www.scaler.com/academy/mentee/problems/35988">www.scaler.com/academy/mentee/problems/35988</a>
Least Common Ancestor	<a href="http://www.scaler.com/academy/mentee/problems/218">www.scaler.com/academy/mentee/problems/218</a>
Diameter of binary tree	<a href="http://www.scaler.com/academy/mentee/problems/9256">www.scaler.com/academy/mentee/problems/9256</a>
Path Sum	<a href="http://www.scaler.com/academy/mentee/problems/234">www.scaler.com/academy/mentee/problems/234</a>
<b>Dynamic Programming</b>	
Stairs	<a href="http://www.scaler.com/academy/mentee/problems/30">www.scaler.com/academy/mentee/problems/30</a>
Minimum Number of Squares	<a href="http://www.scaler.com/academy/mentee/problems/600">www.scaler.com/academy/mentee/problems/600</a>
Dungeon Princess	<a href="http://www.scaler.com/academy/mentee/problems/17">www.scaler.com/academy/mentee/problems/17</a>
Fractional Knapsack	<a href="http://www.scaler.com/academy/mentee/problems/35883">www.scaler.com/academy/mentee/problems/35883</a>
0-1 Knapsack	<a href="http://www.scaler.com/academy/mentee/problems/9292">www.scaler.com/academy/mentee/problems/9292</a>
Coin Sum Infinite	<a href="http://www.scaler.com/academy/mentee/problems/319">www.scaler.com/academy/mentee/problems/319</a>
Cutting a Rod	<a href="http://www.scaler.com/academy/mentee/problems/9318">www.scaler.com/academy/mentee/problems/9318</a>
<b>Graphs</b>	
Number of islands	<a href="http://www.scaler.com/academy/mentee/problems/4702">www.scaler.com/academy/mentee/problems/4702</a>
Topological Sort	<a href="http://www.scaler.com/academy/mentee/problems/9328">www.scaler.com/academy/mentee/problems/9328</a>
Batches	<a href="http://www.scaler.com/academy/mentee/problems/4974">www.scaler.com/academy/mentee/problems/4974</a>
Dijkstra	<a href="http://www.scaler.com/academy/mentee/problems/4706">www.scaler.com/academy/mentee/problems/4706</a>
Rotten Oranges	<a href="http://www.scaler.com/academy/mentee/problems/4704">www.scaler.com/academy/mentee/problems/4704</a>