

S. No.	Date	Title	Page No.	Teacher's Sign / Remarks
			C++ Basics	
1		Intro to C++		
2		Variable & op, ip in C++		
3		Operators in C++		
4		If else & Switch statements / Conditionals in C++	RECAP-1	
5		Loops in C++ / For, while, do-while		
6		Pattern printing / Problems on loops		
7		Problems on loops ~ Part 2	RECAP-2	
8		Number system / Decimal & Binary		
9		Functions in C++		
10		Functions - 2 / Pass by value & Pass by reference	RECAP-3	
11		Array - 1 / Array creation types & operations		
12		Vectors in C++ / Looping & problem solving <sup>arrays</sup>		
13		Target Sum / Prob. in Arrays - 1		
14		Two pointers / Problems in Arrays - 2		
15		Prefix sum problems / Problems in Arrays - 3	RECAP-4	
16		2D - Arrays - 1 / What, Why, & How?		
17		Imp. prob in 2D Arrays / 2D vectors, Pascal's Δ		
18		Advanced Problem Solving in 2D Arrays		
19		Advanced Problem Solving in 2D Arrays - 2		
20		Advanced Problem Solving in 2D Arrays - 3		
21		Time Space Complexity & Big O Notation / How to avoid TLE		
22		Calculating Time Complexity / Problem Solving		
23		Pointers - 1 / Introduction, Data Storage & Access using Pointers		
24		Pointers - 2 / Call by reference, Arithmetic & Array as a pointer		
25		Pointers - 3 / Types of Pointers, Null Wild Dangling, Void		
26		Recursion / Recursion concept and problems	C++ Intermediate	



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27		Recursion Problems - 1   Sum of digits & power of a num.		
28		Problem Solving on Recursion - 2   Recursive operations on arrays		
29		Problem Solving on Recursion - 3   String Problems		
30		Problem Solving on Recursion - 4   Basic Problems		
31		Problem Solving on Recursion - 5   Frog Jump problem		
32		Problem Solving On Recursion - 6		
33		Problem Solving on Recursion - 7   Subsequence concept		
34		Bubble sort algorithm   Optimized Bubble Sort		
35		Selection Sort Algorithm		
36		Insertion Sort Algorithm		
37		Problem solving on sorting algorithms - 1		
38		Merge Sort Algorithm		
39		Quick Sort Algorithm		
40		Count Sort Algorithm   Radix Sort Algorithm		
41		Bucket Sort Algorithm		
42		Problem Solving on sorting algorithms - 2		
43		Problem Solving on sorting algorithms - 3		
44		Binary Search Algorithm		
45		Binary Search Problems - 1		
46		Binary Search Problems - 2		
47		Binary Search Problems - 3		
48		Strings		
49		OOPS		
50		Linked list in C++ - Part 1		
51		Linked list Part 2		



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52		Doubly Linked List	C++ Upper Intermediate 2.2	
53		Circular Linked List		
54		Stacks - 1		
55		Stacks - Important Problems		
56		Stacks - Interview Questions		
57		Queues - 1 - Basics, STL and Implementation		
58		Queues - Interview Questions		
59		Set C++ in One Shot - STL & Types		
60		Introduction to Hashing and Hash Table		
61		HashMap - STL & Types - Implementation		
62		HashMap - Important Problems in STL - Unordered map		
63		Backtracking - 1		
64		Backtracking - 2		
65		Binary Trees - 1		
66		Interview Problems On Binary Trees		
67		Binary Search Trees		
68		Interview Problems on BST		
69		Generic Trees		
70		Heaps		
71		Priority Queue		
72		Greedy 1		
73		Greedy 2		
74		DP - 1		
75		DP - 2		C++ Advanced
76		Interview Problems on DP - 1		
77		Interview Problems on DP - 2		

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78		Interview Problems on DP-3		
79		Graph Introduction		
80		Graphs Implementation		
81		Graphs BFS & DFS		
82		Problems based on BFS and DFS		



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Graphs - Disjoint Set Union

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Topological Sorting and Cycle detection

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Kruskal & Prims Algorithms

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Dijkstra's Algorithm

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Questions & Concepts!

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Bit Manipulation