

## **Index Launchpad C++ and DSA (Pitampura Batch)**

<b>Lecture Number</b>	<b>Contents Covered</b>
1	Basics of Problem Solving (pdf)
2	Pattern, simple_interest, sum_of_n_numbers, odd_eve
3	Pattern, fib_for_less_than_n, factorial
4	rotating_bits_in_a_num, combinations, to_count_no_of_set_bits, use_of_xor
5	greater_left_and_smaller_right_optimized, rotate_no_in_array, print_an_array_differently, pascals_triangle, search_no_in_array, counts_greater_than_right, to_count_no_of_set_bits_optimized
6	Empty
7	max_sum_subarray_eff, prog_0s_1s_and_2s , selection_sort, bubble_sort, Subarrays
8	rotate_char_array, print_array_of_DMA, eff_0s_1s_and_2s, rotate_char_array1, insertion_sort, string_rotate
9	print_n_nos, linear_search_using_rec, string_and_stars, substrings, subsequence, fibonacci_sequence, exponential_fun,

	factorial
10	Mergesort, word_from_number, printbitstring_without11, keypad_problem, Tower_of_Hanoi, friendpairingbike
11	rat_in_maze_all_paths, all_nqueen_print, rat_and_maze, nqueen, all_nqueen_count, permute_string, print_int_lexicographically
12	Quick_sort, root_using_bs, local_minima_using_bs, binary_search_first_occurrence, binary_search_last_occurrence, square_root_using_bin_search, binary_search
13	aggressive_cows, painter_problem, occurrence_of_a_no_in_sorted_array, Kth_smallest, unique_number, circular_rotated
14	linked_list, reverseRecLL
15	linked_list, mergeSpecialLinkedList
16	median_in_2D_array, max_biotonic_length_subarray, max_circular_subarray_sum, counting_sort
17	TC_analysis1, prime_visits, LCM_Optimized, GCD_Optimized
18	OOPs, STL

19	calMaxRectAreaHistogram, find_nearest_smaller_at_right, find_nearest_larger_at_right, inbuilt_stack, stack, stack_template, greatestRectAreaIn2DMat
20	infixToPrefix, CircularQueueUsingArray, QueueUsingArray, infixToPostfix, QueueUsingLL, deque, maxInKsizedAdjacentWindows, balancedParenthesis, firstUnique, queue
21	Tree
22	binarySearchTree
23	Hashmap, subarraySumK, STLhashmap
24	Heap, STLpriority_queue, heapSort, KtopElementsInIstream, mergeKsortedArrUsingHeap, heapSortUsingPQ, joinRopes
25	Trie, phonebook, minProductOfSubsets, infiniteCoinsForASum, fractionalKnapsack, busymen, minPetrolCost, badnessInRanklist, chopstickPairing
26	noOfBalancedBT, reduceToN_MinSteps, longestIncreasingSubsequence, fibUsingDP, friendPairingDP,

	setBitsUpToN
27	0_1Knapsack, maxWineCost, longestCommonSubsequence
28	DFS, topologicalSort, detectCycle, BFS, minMovesInSnake_Ladder, graph
29	Dijkstra, prims_algo, journeyToMoon, maxTravellingCost
WebinarDP	LCSwithKreplace, longestDistanceBtwTwoNodes, countBSTinNnodes, MCM(Matrix Chain Multiplication)