| C & Data Structures Course to Ace the Interview for BCA / B.Tech / MCA Students : | | |
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| **S.no** | **Subject** | **Topic Has To cover** |
| 1 | C Basics | Header files in C, main() function in C, printf() & scanf() in C & other functions for input & output purpose, getch() & getche() functions & their uses |
| 2 | Looping & Conditions | Looping & Conditions programs, uses & advantages, Interview Questions on Looping & Conditions. |
| 3 | Arrays | Arrays concepts, inputs & output of arrays elements, sorting + searching in Arrays, find out no of repeated elements in array & accept & only unique elements in array. Remove duplicate elements from array, double dimension array, sum of 2 matrix & multiplication of 2 matrix. |
| 4 | Functions | Functions in C, User define functions, functions example, recursion. |
| 5 | Sorting & Searching. | Linear & Binary Search, Selection Sort, Bubble Sort, Insertion Sort, Merge Sort, Heap Sort, Quick Sort. |
| 6 | String Handling in C | Strings in C, String handling in C using in build/library functions & without library functions(own code), Sorting & searching with String, count no of repeated characters in a string |
| 7 | Pointer | Pointers in C, Type of Pointers, Dynamic Memory Allocation in C using malloc(), calloc(), realloc() & free() functions, Interview questions on pointers. |
| 8 | Structure, Union & enum | Structure, unions & enum in C, their examples, structure array, structure within a structure, diff b/w structure & union, structure with Pointers. |
| 9 | LinkedList | Single LinkedList with All Operation - with insertion using LIFO + FIFO + add element in Mid of List before or after a particular node + Delete existing elements from List + implement sorting algos with List. |
| 10 | Double LinkedList | Double LinkedList with All Operation - with insertion using LIFO + FIFO + add element in Mid of List before or after a particular node + Delete existing elements from List + implement sorting algos with List. |
| 11 | Stack, Queue | Stack introduction, Stack implementation using Array & Pointer/List, Expression conversion from Infix to prefix or postfix, prefix & postfix to Infix using Stack, Expression Evolution using Stack<br>Queue Implementation using Array & Pointer/List , implementation Simple Queue, Circular Queue, Double ended queue, Priority Queue, implementation of Simple Queue, |
| 12 | BST & AVL Tree, B+ Tree | BST (Binary Search Tree) - add new node inBST + delete Node from BST + searching elements in BST, Traversing in BST with inorder , preorder & post order, AVL Tree, Balance factor, B+ Tree |
| 13 | Graph | Graph Theory, uses of Graph, BFS and DFS in Graph, Prim's and Kruskal's algorithm for MST, finding the shortest path in Graph |
| 14 | File Handling | File Handling with all operations |
| 15 | Project Designing using C | Project Designing using C Language. |
| 16 | Project Designing using C | Project Designing using C Language. |

*** All Topics covered with interview questions & daily (subjective / objective) tests.**

*** We will check performance of all students on daily basis.**

*** 40 – 45 hours Interview Preparation Course for BCA / B.Tech / MCA Students.**