

# Contents

Sl. no.	Topic	Date	Page no.	Teacher's Signature
1.	Write a program in C to implement base conversion from any base to any other base (among decimal, binary, octal, hexadecimal).	✓		
2.	Write a program in C to search an element from a list. Give option to the user to perform Linear or Binary Search.	✓		
3.	Write a program in C to implement Bubble Sort.	✓		
4.	Write a program in C to implement Insertion Sort.	✓		
5.	Write a program in C to implement Selection Sort.	✓		
6.	Write a program in C to implement Quick Sort.	✓		
7.	Write a program in C to implement Merge Sort.	✓		
8.	Write a program in C to implement Heap Sort.			
9.	Write a program in C to transpose a matrix.	✓		
10.	Write a program in C to implement Diagonal Matrix using one-dimensional array.	✓		
11.	Write a program in C to implement Lower and Upper Triangular Matrix using one-dimensional array.			
12.	Write a program in C to implement Symmetric Matrix using one-dimensional array.			
13.	Write a program in C to implement Sparse Matrix using one-dimensional arrays.			
14.	Write a program in C to implement matrix multiplication.			
15.	Write a program in C to inverse a Matrix.			
16.	Write a program in C to create a 2D array dynamically.	✓		



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17.	Write a program in C to implement Stack using array.	✓		
18.	Write a program in C to implement Circular Queue using array.	✓		
19.	Write a program to scan a polynomial using array. Implement addition, subtraction, multiplication of two polynomials.			
20.	Write a program in C to convert infix to postfix notations.	✓		
21.	Write a program in C to implement evaluation of postfix notations.			
22.	Write a program in C to implement Singly Linked List.	✓		
23.	Write a program in C to implement Doubly Linked List.	✓		
24.	Write a program in C to implement Circular Queue using Linked List.	✓		
25.	Implement Circular Linked List. Include functions for insertion, deletion and search of a number and reversing the list.	✓		
26.	Implement Stack using linked list.	✓		
27.	Create and perform different operations Double-ended Queues using Linked List.			
28.	Write a program to scan a polynomial using linked list and add two polynomials.			
29.	Write a program to create a Binary Search Tree and include following operations in tree: (a) Insertion (Recursive and Iterative Implementation) (b) Deletion (c) Search a no. in BST (d) Display its preorder, postorder, inorder traversals Recursively (e) Display its preorder, postorder, inorder traversals Iteratively (f) Display its level-by-level traversals (g) Count the non-leaf nodes and leaf nodes (h) Display height of tree (i) Create a mirror image of tree (j) Check whether two BSTs are equal or not			
30.	Write a program in C to implement Hashing with chaining.	✓		
31.	Write a program in C to reverse the order of elements in stack using additional stack.			
32.	Write a program in C to reverse the order of elements in stack using additional queue.			