Netaji Subhash Engineering College
B.Tech (Computer Science & Engineering)
2ND Year   Semester-III
Data Structure & Algorithm Lab
Paper Code - PCC-CS391

1. Write a menu driven program to implement Insert, Delete, and Display operations on a linear array.

2. Write a program to transpose a matrix.

3. Write a program to multiply two matrices.

4. Write a program to implement Linear Search and Binary Search on a linear array.

5. Write a menu driven program to implement Insert, Delete, Display operations in Stack using array.

6. Write a program to convert an Infix expression to Postfix form.

7. Write a program to evaluate a postfix expression using Stack.

8. Write a menu driven program to implement Insert, Delete, and Display operations in a Linear Queue using array.

9. Write a menu driven program to implement Insert, Delete, and Display operations in a Circular Queue using array.

10. Write a program to implement Tower of Hanoi problem using recursion.

11. Write a program to print Factorial of N (user given number) using recursion.

12. Write a program to print Fibonacci series upto Nth term (N is a user given number) using recursion.

13. Write a program to find GCD of two user given numbers using recursion.

14. Write a program to sort N numbers using Bubble Sort.

15. Write a program to sort N numbers using Insertion Sort.

16. Write a program to sort N numbers using Selection Sort.

17. Write a program to sort N numbers using Quick Sort.

18. Write a program to sort N numbers using Merge Sort.

19. Write a program to do the following operations on Single Linked List
    a) Insert at beginning
    b) Insert at a specified position

c) Insert at end
d) Delete an element from a specified position
e) Search an element
f) Count number of nodes
g) Sort the entire list
h) Reverse the entire list
i) Display the list

20. Write a program to do the following operations on Circular Linked List
     a) Insert at beginning
     b) Insert at a specified position
     c) Insert at end
     d) Delete an element from a specified position
     e) Search an element
     f) Count number of nodes
     g) Sort the entire list
     h) Reverse the entire list
     i) Display the list

21. Write a program to do the following operations on Doubly Linked List
     a) Insert at beginning
     b) Insert at a specified position
     c) Insert at end
     d) Delete an element from a specified position
     e) Search an element
     f) Count number of nodes
     g) Sort the entire list
     h) Reverse the entire list
     i) Display the list

22. Write a menu driven program to implement Insert, Delete, and Display operations in Stack using Linked List.

23. Write a menu driven program to implement Insert, Delete, and Display operations in Queue using Linked List.

24. Write a program to implement Binary Search Tree Traversal.

25. Write a program to implement Graph Traversal.