Data Structures Lab
List of Experiments

Sl. No	Question	Date of Submission

1	write a program to implement
	    1.1 bubble sort
	    1.2 selection sort
	    1.3 insertion sort
		3-10-22

2	Write a program to read two polynomials and store them in an array. Calculate the sum of the two polynomials and display the first polynomial, second polynomial and the resultant polynomial.	10-10-22
3	Write a program to enter two matrices in normal form . Write a function to convert two matrices to tuple form and display it. Also find the transpose of the two matrices represented in tuple form and display it. Find the sum of the two matrices in tuple form and display the sum in tuple form.	17-10-22

4	Write a menu driven program for performing the following operations on a Linked List:
	    4.1.Display
	    4.2.Insert at Beginning
	    4.3.Insert at End
	    4.4.Insert at a specified Position
	    4.5.Delete from Beginning
	    4.6.Delete from End
	    4.7.Delete from a specified Position
		24-10-22

5	Write a program to read two polynomials and store them using linked list. Calculate the sum of the two polynomials and display the first polynomial, second polynomial and the resultant polynomial.	24-10-22
6	Write a program to read two polynomials and store them using linked list. Find the product of two polynomials and store the result using linked list. Display the resultant polynomial.	31-10-22

7	Write a program for addition of polynomials containing two variables using linked list.	31-10-22

8	The details of students(number, name, total-mark) are to be stored in a linked list. Write functions for the following operations:
	    19.1.Insert
	    19.2.Delete
	    19.3.Search
	    19.4.Sort on the basis of number
	    19.5.Display the resultant list after every operation
		7-11-22

9	Create a Doubly Linked List from a string taking each character from the string. Check if the given string is palindrome in an efficient method	7-11-22
10	Implement a Stack using arrays with the operations: 1.Pushing elements to the Stack. 2.Popping elements from the Stack 3.Display the contents of the Stack after each operation.	14-11-22
11	Using stack convert an infix expression to a postfix expression and evaluate the postfix expression.	14-11-22
12	Implement a stack using linked list with the operations: 1.Push elements to the queue. 2.Pop elements from the queue. 3.Display the queue after each operation.	21-11-22
13	Write a program to reverse the content of string using stack	21-11-22
14	Implement a Queue using arrays with the operations: 1.Insert elements to the Queue. 2.Delete elements from the Queue. 3.Display the contents of the Queue after each operation.	28-11-22
15	Implement a circular queue using arrays with the operations: 1.Insert an element to the queue. 2.Delete an elements from the queue. 3.Display the contents of the queue after each operation	28-11-22
16	Implement a Priority Queue with the operations: 1Insert elements to the Priority Queue. 2.Delete elements from the Priority Queue. 3.Display the contents of the Priority Queue after each operation.	5-12-22

17	Implement Quicksort	5-12-22
18	Implement Linear and Binary Search	12-12-22
19	Implement Tree Creation and Insertion of Nodes	12-12-22
20	Implement Tree Traversal and Deletion of Node from a tree	19-12-22
21	Implement Depth First Search and Breadth First Search of a Graph	19-12-22
22	Build a hash table and insert elements using linear probing	2-01-23