**Data Structure Lab**

**MCA- 112**

**Lab Manual 5**

**Implementation of Linked List**

1. Implement linked list and perform all the 4 operations and cases.
2. Implement circular linked list and perform all the 4 operations and cases.
3. Implement header linked list and perform all the 4 operations and cases.
4. Implement doubly linked list and perform all the 4 operations and cases.

**Problems on Singly Linked List**

5. Remove duplicates from a sorted linked list

6. Remove duplicates from an unsorted linked list

7. Swap nodes in a linked list without swapping data

8. Pairwise swap elements of a given linked list

9. Move last element to front of a given Linked List

**Problems on Circular Linked List**

10. Check if a linked list is Circular Linked List

11. Exchange first and last nodes in Circular Linked List

**Problems on Doubly Linked List**

12. Reverse a Doubly Linked List

13. Count triplets in a sorted doubly linked list whose sum is equal to a given value x

14. Remove duplicates from a sorted doubly linked list

15. Delete all occurrences of a given key in a doubly linked list