# Modern Education Society's Wadia College of Engineering, Pune

NAME OF STUDENT:	CLASS:
SEMESTER/YEAR:	ROLL NO:
DATE OF PERFORMANCE:	DATE OF SUBMISSION:
EXAMINED BY:	EXPERIMENT NO: DSL C-19

TITLE: TO PERFORM VARIOUS OPERATIONS ON LINK LIST.

**PROBLEM STATEMENT**: Department of Computer Engineering has student's club named 'pinnacle club'. Students of second ,third and final year of department can be granted membership on request. Similarly on may cancel the membership of club .First node is reserved for the president of the club and last node is reserved for the secretary of club .write C++ program to maintain club members information using singly linked list .store student PRN and Name .Write function to:

- a) Add and Delete the members as well as the president or even secretary .
- b)Compute total numbers of members of club.
- c)Display members.
- d)Display list in reverse order using recursion.
- e)Two linked lists exists for two divisions. Concatinate two lists.

### **OBJECTIVES:**

- 1. To understand structure of singly linked list.
- 2. To understand how to Create, Display and perform various operations on singly linked list .

### **OUTCOMES:**

- 1. To analyze the problems to apply suitable algorithm and data structure.
- 2.To discriminate the usage of various data structures in approaching the problem solution .
- 3.To understand concepts of Linear Data Structure (singly linked lists).

## **PRE-REQUISITES:**

- 1.Knowledge of C++ programming.
- 2. Knowledge of singly linked lists.

### **APPARATUS:**

- 1. OS: Ubuntu 18.04.2 LTS
- 2. Processor: Intel® Core™ i7-4790S CPU
- 3. Graphics: GeForce GT 610/PCIe/SSE2
- 4. Storage: 400 GB
- 5. Text Editor: gedit
- 6. Compiler: GNU C++ Compiler (g++)
- 7. Terminal

## **QUESTIONS:**

- 1. What is a linked list? State it's types.
- 2. Write applications of SLL.