

University of Engineering and Management (UEM), Kolkata

Department of Computer Applications

<u>Stream: MCA</u>

Session: 2024-2026

Subject Name: Data Structures with C Laboratory

Subject Code: MCA193

Class taken by:

Kaustuv Bhattacharjee (KBH) Aparajita Mukherjee (APM) Sujata Ghatak (STG) Topic: Linked List

- 1) Write a Menu driven C program to accomplish the following functionalities in single linked list.
 - a) Create a single linked list.
 - b) Display the elements of a single linked list.
 - c) Insert a node at the beginning of a single linked list.
 - d) Insert a node at the end of a single linked list.
 - e) Insert a node before a given node of a single linked list.
 - f) Insert a node after a given node of a single linked list.
 - g) Delete a node from the beginning of a single linked list.
 - h) Delete a node from the end of a single linked list.
 - i) Delete a node after a given node of a single linked list.
 - j) Delete the entire single linked list.
- 2) Write a Menu driven C program to accomplish the following functionalities in circular linked list.
 - a) Create a circular linked list.
 - b) Display the elements of a circular linked list.
 - c) Insert a node at the beginning of a circular linked list.
 - d) Insert a node at the end of a circular linked list.
 - e) Delete a node from the beginning of a circular linked list.
 - f) Delete a node from the end of a circular linked list.
 - g) Delete a node after a given node of a circular linked list.
 - h) Delete the entire circular linked list.