



# **University of Engineering and Management (UEM), Kolkata**

*Department of Computer Applications*

*Stream: MCA*

*Session: 2023-2025*

**Subject Name: Data Structures with C Laboratory**

**Subject Code: MCAESCCA193**

*Class taken by:*

**Kaustuv Bhattacharjee (KBH)**

**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.**