



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:

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Topic: Linked List

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

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