



University of Engineering and Management (UEM), Kolkata

Department of Computer Applications

Stream: MCA

Session: 2024-2026

Subject Name: Data Structures with C Laboratory

Subject Code: MCA193

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Topic: Queue

- 1) Write a Menu driven C program to accomplish the following functionalities in Queue using an Array:
 - a. Insert an element into the queue using an array (Enqueue Operation).
 - b. Delete an element from the queue using an array (Dequeue Operation).
 - c. Return the value of the FRONT element of the queue (without deleting it from the queue) using an array (Peep operation).
 - d. Display the elements of a queue using an array.

- 2) Write a Menu driven C program to accomplish the following functionalities in Queue using Linked List:
 - e. Insert an element into the queue using a Linked List (Enqueue Operation).
 - f. Delete an element from the queue using a Linked List (Dequeue Operation).
 - g. Return the value of the FRONT element of the queue (without deleting it from the queue) using a Linked List (Peep operation).
 - h. Display the elements of a queue using a Linked List.

- 3) Write a Menu driven C program to accomplish the following functionalities in Circular Queue using Array:
 - i. Insert an element into the circular queue.
 - j. Delete an element from the circular queue.
 - k. Return the value of the FRONT element of the circular queue (without deleting it from the queue).
 - l. Display the elements of a circular queue using the circular queue.