**Course: Data Structures and Algorithms**

**Lab 03**

**Circular Queue and Priority Queue**

**Task 1:** Implement the Circular queue using array. Your program must include the following methods:

insert\_element()

delete\_element()

display\_element()

**Expected Output:**

Circular Queue operations

Enter 1 to insert into queue

Enter 2 to delete element

Enter 3 to display element

Enter 4 to exit

Enter your choice: 1

Enter a value to insert: 10

Enter your choice: 1

Enter a value to insert: 39

Enter your choice: 1

Enter a value to insert: 89

Enter your choice: 3

10 39 89

REAR: 89

FRONT: 10

Enter your choice: 2

Element deleted from the queue :10

Enter your choice: 3

39 89

REAR: 89

FRONT: 39

Enter your choice:

**Task 2:** Implement the Priority queue using array. Your program must include the following methods:

Enqueue(E)

Dequeue(): remove the item with the highest priority

Find() return the item with the highest priority