

**Institute of Computer Technology**

**B. Tech. Computer Science and Engineering**

**Sub: DS (2CSE302)**

**Practical -12**

**Objective:** Implement the scenario based on circular Queue using array.

11. In a computer-control traffic system, traffic light is one of the best examples of the circular queue. Each light of traffic light gets ON one by one after every interval of time. Like red light gets ON for one minute then yellow light for one minute and then green light. After green light, the red light gets ON.

If there is a maximum capacity of the circular queue is 3 (Implement the below circular queue operation using C language:

- insert (ENQUEUE)
- delete (DEQUEUE),
- display (TRACING)

**Input:** Insert 10

Insert 30

Insert 20

Delete

Insert 40

**Output:**

Queue is empty !!

Inserted -> 10

Inserted -> 30

Inserted -> 20

Queue is full!!

Front -> 0

Items -> 10 30 20

Rear -> 2

Deleted element -> 10

Front -> 1  
Items -> 30 20  
Rear -> 2

Inserted -> 40  
Front -> 1  
Items -> 30 20 40  
Rear -> 0

Queue is full!!