

Expt. No. ....

Lab - 5

Page No. ....

## Implementation of Circular Queue

 $A[SIZE]$  $FRONT = 1$  $REAR = -1$  $IsFull()$ 

{

 $if (front == (rear + 1) \% N)$   
     $return True$ 

else

 $return False$ 

}

 $IsEmpty()$ 

{

 $if (front == -1 \& \& rear == -1)$   
     $return True$ 

else

 $return False$ 

}

 $Enqueue(x)$   
{ $if (IsFull())$  $Print ("Q is Full")$ else  $if (IsEmpty())$  $front \leftarrow rear \leftarrow 0$ 

else

Teacher's Signature : \_\_\_\_\_

```
rear <- (rear + 1) % N
```

```
A[rear] = x
```

```
}
```

```
Dequeue()
```

```
{
```

```
  if(Is Empty())
```

```
    printf("Q is Empty")
```

```
  else if (front == rear)
```

```
    x <- A[front]
```

```
    front <- rear <- -1
```

```
  else
```

```
    { x <- A[front]
```

```
    front <- (front + 1) % N
```

```
  }
```

```
  return x
```

```
}
```