

LAB - 3

QUEUE Implementation

Pseudocode

 $A[SIZE]$ Front $\leftarrow -1$ Rear $\leftarrow -1$

Is Full ()

```
{  
  if (rear == SIZE - 1)  
    return TRUE  
  else  
    return FALSE  
}
```

Is Empty ()

```
{  
  if (front == -1 & rear == -1)  
    return TRUE  
  else  
    return FALSE  
}
```

Enqueue(x)

```
{  
  if (Is Full())  
    printf ("Q is Full")  
  else if (Is Empty())  
    front  $\leftarrow$  rear  $\leftarrow$  0
```

else

rear \leftarrow rear + 1

A[rear] = x

```
}
```

Dequeue()

```
{
```

if (Is Empty())

printf ("Q is Empty")

else if (front == rear)

x \leftarrow A[front]

front \leftarrow rear \leftarrow -1

else

```
{ x  $\leftarrow$  A[front]
```

```
  front  $\leftarrow$  front + 1
```

```
}
```

return x

```
}
```