

Queue Implementation

ALSIZE]

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

}

En queue(x)

{

if (IS Full())

Print f("Q is Full")

else if (IS empty())

front \leftarrow rear \leftarrow 0

Teacher's Signature : _____

```
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  $\leftarrow$  rear  $\leftarrow$  -1  
    }  
  else  
    { x  $\leftarrow$  A[front]  
      front  $\leftarrow$  front + 1  
    }  
  return x  
}
```