Lab: 3

a) WAP to simulate the working of queue of integers using an array. Provide the following operations: Insert, Delete, Display The program should print appropriate messages for queue.

→ define N 5

int queue [N]

int Front = -1

rear = -1

if rear = N-1 print Queue over flow

else if front = -1 & & rear = -1

front = rear = 0

queue [rear] = x

else rear +1

queue [rear] = x

void deque

if front = -1 and rear = -1 print Queue is empty.

else if front = = rear ~~print queue is empty~~ front = rear = -1

else

print Deleted

front ++

void display

if front = = -1 and rear = = -1 print

queue is empty

else (i = front, i < rear + 1, i ++)

print queue.

```
 queue menu
1.Enqueue
2.Dequeue
3.Display
4.Peek
5.Exit
6. Enter your choice: 1
enter the value to enqueue: 2

 queue menu
1.Enqueue
2.Dequeue
3.Display
4.Peek
5.Exit
6. Enter your choice: 1
enter the value to enqueue: 5

 queue menu
1.Enqueue
2.Dequeue
3.Display
4.Peek
5.Exit
6. Enter your choice: 4
2
 queue menu
1.Enqueue
2.Dequeue
3.Display
4.Peek
5.Exit
6. Enter your choice: 2
deleted elements = 2
 queue menu
1.Enqueue
2.Dequeue
3.Display
4.Peek
5.Exit
6. Enter your choice: 2
deleted elements = 2
 queue menu
1.Enqueue
2.Dequeue
3.Display
4.Peek
5.Exit
6. Enter your choice: 2
deleted elements = 2
```