

1) WAP to simulate the working of a queue of integers using an array. Provide the following operations —

(a) insert

(b) delete

(c) display

The program should print appropriate messages for queue empty and queue overflow conditions

```
int rear = -1;
```

```
int front = -1;
```

```
display ()
```

```
{
```

```
    if (front == -1)
```

```
        queue empty
```

```
    else
```

```
    {
```

```
        for(i = front, i <= rear, i++)
```

```
        {
```

```
        }
```

```
insert ()
```

```
{
```

```
    if (rear == MAX-1)
```

```
        queue overflow
```

```
    else
```

①

```
{ if(front == -1)
```

```
front = 0;
```

```
Insert element
```

```
rear = rear + 1;
```

```
queue[rear] = item;
```

```
}
```

```
delete()
```

```
{
```

```
if (front == -1 || front > rear)
```

```
{
```

```
(Queue underflow)
```

```
}
```

```
else
```

```
{ front = front + 1;
```

```
}
```

```
}
```