Q. WAP implementing insert, delete & display operation of circular queue.

```
#include <stdio.h>
# define MAX 5
int equeue_arr [MAX];
int front = 0;
int rear = -1;
int count = 0;
int insert (int item)
{
 if (count == MAX)
 {
  if (rear
 Printf("Queue overflow!!\n");
 return;
 }
 else
 {
 rear = (rear + 1) % MAX;
 equeue_arr (rear) = item;
 count = count + 1;
 return ;
  }
 }
 void deletion ()
 {
  if (count == 0)
  {
  Printf ("Queue Underflow !! \n");
```

```
return;
}
else
{
Printf("Element deleted from queue is %d\n",
        cqueue_arr[front]);
front = (front+1)%MAX;
count = count -1;
 }
}
void display()
{
int i,j;
if (count == 0)
{
 Printf("Circular Queue is empty\n");
 else
 {
 Printf("Elements in the circular queue are:\n");
  j = front;
 for (i=0; i<count; i++)
 {
 printf("%d\t", cqueue_arr[j]);
 j=(j+1)%MAX;
 }
 }
 }
 int main()
{
 int choice, item;
```

```
Printf ("***** CIRCULAR QUEUE *****\n");
 do
 {
 Printf ("\n1.Insertion\n");
 Printf ("2. Deletion\n");
 Printf ("3. Display\n");
 Printf ("4. Quit\n");
 Printf ("Enter your choice:");
Switch (choice)
 {
  case 1:
  Printf ("Enter the element for Insertion");
  Scanf ("%d", &item);
  insert (item);
  break;
  case 2:
      deletion ();
      break;
   case 3;
      display ();
      break;
   case 4:
        break;
  default:
        printf ("Wrong Choice\n");
```

```
}
}
while (choice != 4);
    return 0;
    }
```