Data Structures and Algorithms

1. Write a program implementing insert, delete and display operation of Circular Queue.

void insert(int x){

if((f == 0 && r == n-1) || (f == r+1))

printf("Queue Overflow \n");

if(f == -1){

f = 0;

r = 0;

}else{

if(r == n-1)

r = 0;

else

r = r+1;

}

arr[r] = x ;

}

void delete(){

if(f == -1){

printf("Queue Underflown \n");

}

if(f == r){

f = -1;

r = -1;

}else{

if(f == n-1)

f = 0;

else

f = f+1;

}

}

void display(){

if(f == -1){

printf("Queue is empty \n");

}

if( f <= r ){

while(f <= r){

printf("%d ",arr[f]);

f++;

}

}else{

while(f <= n-1){

printf("%d ",arr[f]);

f++;

}

f = 0;

while(f <= r){

printf("%d ",arr[f]);

f++;

}

}

printf("\n");

}