LAB 3

3 (A).Queue implementation

#include <stdio.h>

int q[50],rear=-1,front=-1,max=50;

void enqueue();

void dequeue();

void display();

void main()

{

int ch;

printf("Press-1.insert, 2.delete, 3.Display and 4.Exit\n");

while(ch!=4)

{

printf("Enter choice:");

scanf("%d",&ch);

switch(ch){

case 1:

enqueue();

break;

case 2:

dequeue();

break;

case 3:

display();

break;

}

}

printf("Exited");

}

void enqueue()

{

int item;

if(rear==max-1)

printf("Queue overflow\n");

else

{ if(front==-1)

front=0;

printf("Insert an element:");

scanf("%d",&item);

rear+=1;

q[rear]=item;

}

}

void dequeue()

{

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

printf("Queue underflow\n");

else

{

printf("Deleted element is:%d\n",q[front]);

front+=1;

}

}

void display()

{

int i;

if(front==-1)

printf("Queue is empty");

else

{

printf("Queue is:\n");

for(i=front;i<=rear;i++)

printf("%d\t",q[i]);

printf("\n");

}

}

OUTPUT:

