```c
#include<stdio.h>
#include<process.h>
#define QUE_SIZE 3
int item,front=0,rear=-1,q[5];
void insertrear()
{
 if(rear==QUE_SIZE-1)
 {
  printf("Queue is Full\n");
  return;
 }
 rear=rear+1;
 q[rear]=item;
}
int deletefront()
{
 if(front>rear)
 {
  front=0;
  rear=-1;
  return -1;
 }
 return q[front++];
}
```

```
void displayQ()
{
int i;
if(front>rear)
{
 printf("Queue is empty\n");
 return;
}
printf("Contents of Queue:\n");
for(i=front;i<=rear;i++)
{
 printf("%d\n",q[i]);
}
}
void main()
{
 int choice;
 for(;;)
 {
  printf("1.Insert at rear\n2. Delete from front\n3.Display\n4.Exit\n");
  printf("Enter choice:\n");
  scanf("%d",&choice);
  switch(choice)
  {
   case 1:
          printf("Enter the item to be inserted:\n");
          scanf("%d",&item);
          insertrear();
          break;
```

```
54      case 2:
55              item=deletefront();
56              if(item==-1)
57              printf("Queue is empty\n");
58              else
59              printf("Item deleted=%d\n",item);
60              break;
61      case 3:
62              displayQ();
63              break;
64      default: exit(0);
65    }
66  }
67 }
```

"C:\Users\Neha Chadaga\Desktop\week5_Queue.exe"

```
1.Insert at rear
2. Delete from front
3.Display
4.Exit
Enter choice:
1
Enter the item to be inserted:
3
1.Insert at rear
2. Delete from front
3.Display
4.Exit
Enter choice:
1
Enter the item to be inserted:
6
1.Insert at rear
2. Delete from front
3.Display
4.Exit
Enter choice:
1
Enter the item to be inserted:
9
1.Insert at rear
2. Delete from front
3.Display
4.Exit
Enter choice:
1
Enter the item to be inserted:
2
Queue is Full
1.Insert at rear
2. Delete from front
3.Display
4.Exit
Enter choice:
3
Contents of Queue:
3
6
9
1.Insert at rear
2. Delete from front
3.Display
4.Exit
```

```
1.Insert at rear
2. Delete from front
3.Display
4.Exit
Enter choice:
2
Item deleted=3
1.Insert at rear
2. Delete from front
3.Display
4.Exit
Enter choice:
2
Item deleted=6
1.Insert at rear
2. Delete from front
3.Display
4.Exit
Enter choice:
2
Item deleted=9
1.Insert at rear
2. Delete from front
3.Display
4.Exit
Enter choice:
2
Queue is empty
1.Insert at rear
2. Delete from front
3.Display
4.Exit
Enter choice:
4

Process returned 0 (0x0)   execution time : 21.658 s
Press any key to continue.
```