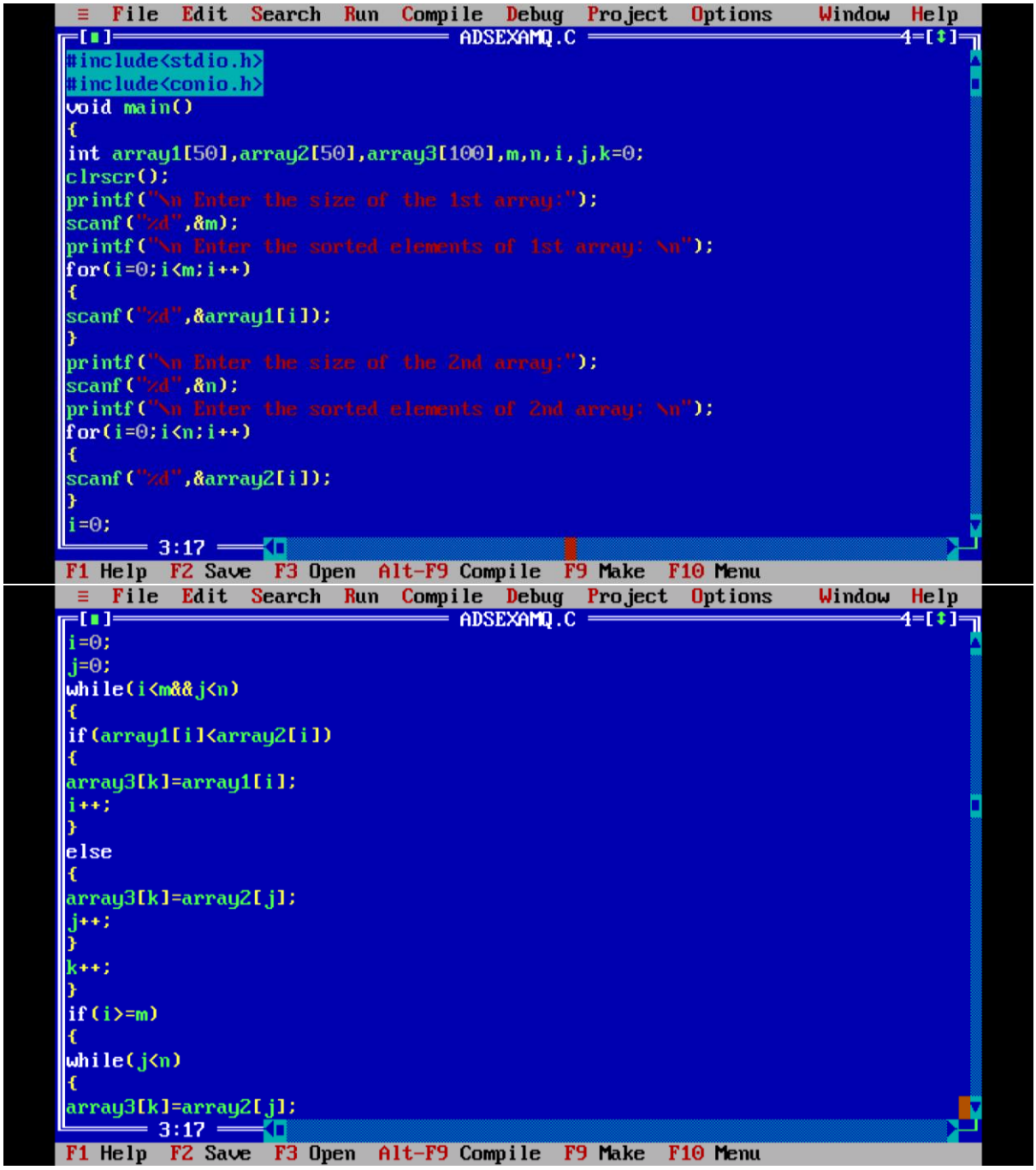
FIRST SEMESTER MCA (2020 SCHEME) PRACTICAL EXAMINATION

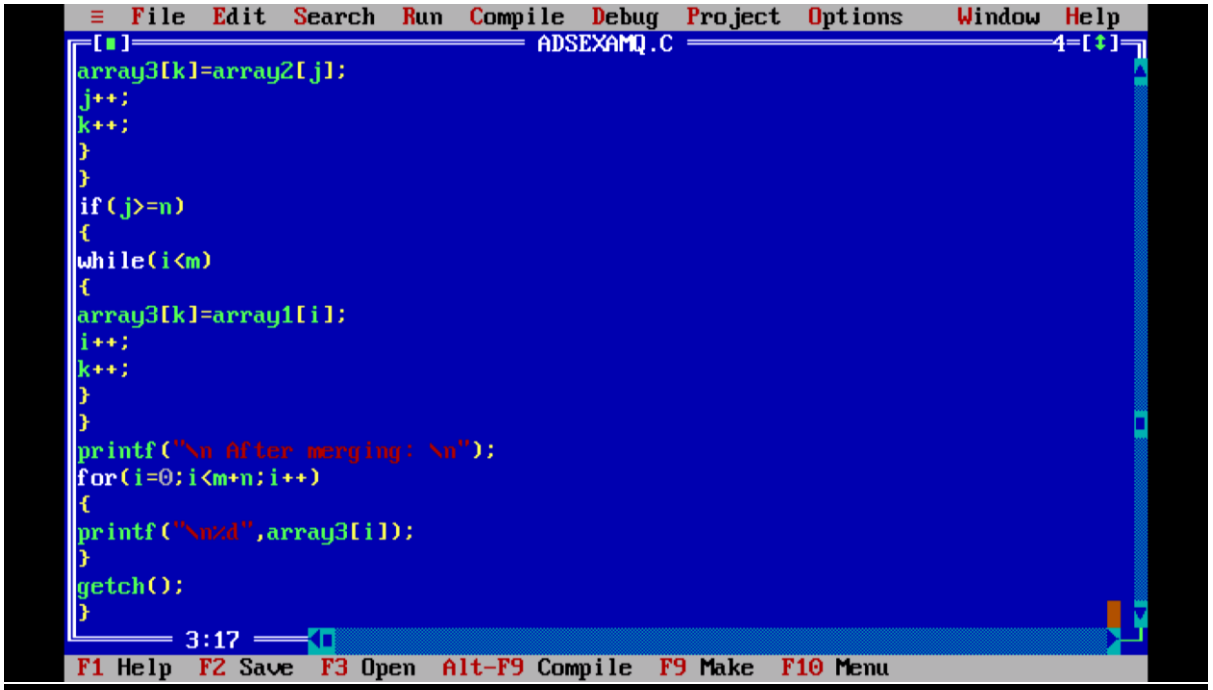
JUNE-JULY 2021

20MCA135 DATA STRUCTURES LAB

BATCH – 2

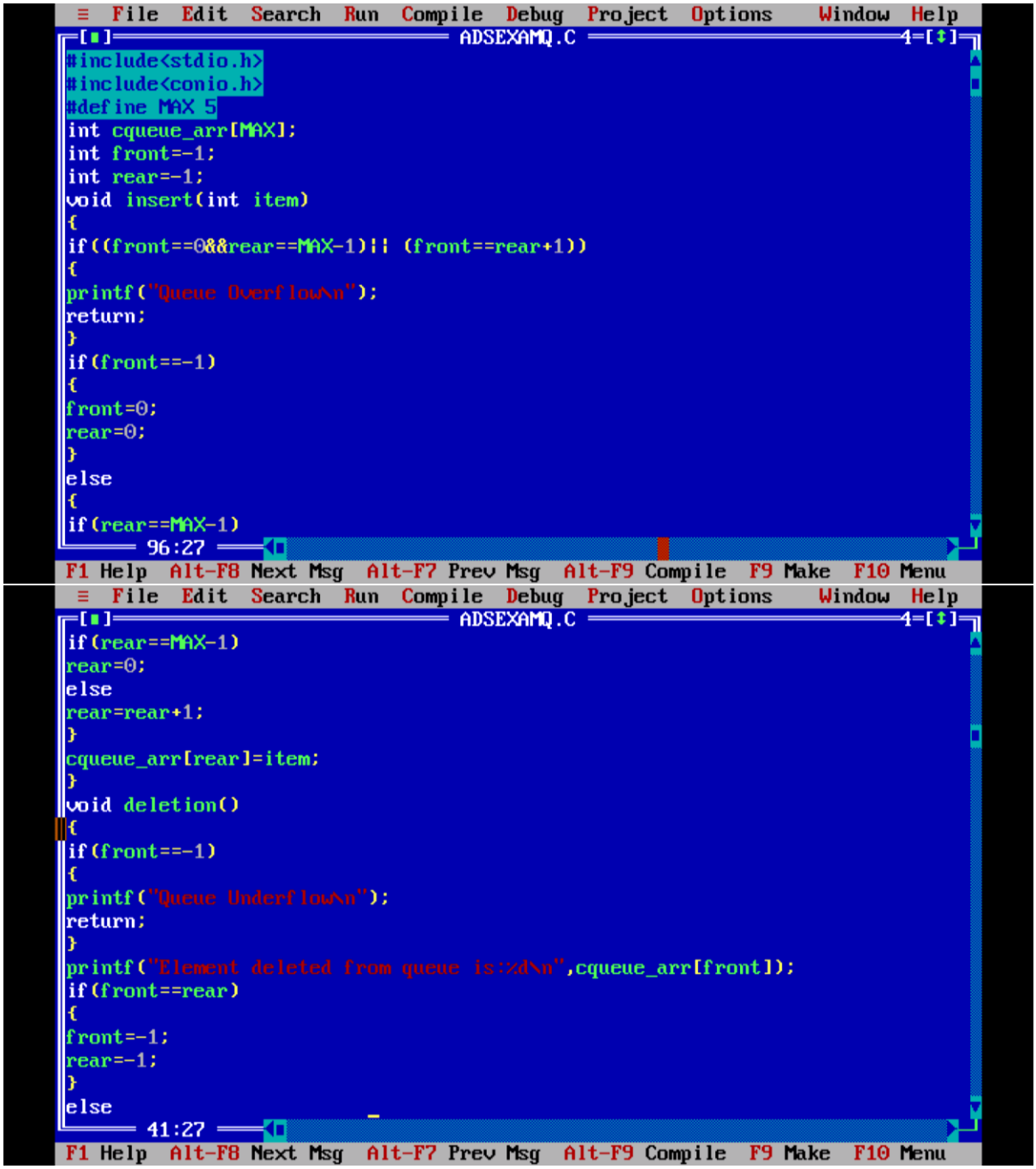
1. Merging of 2 sorted arrays.

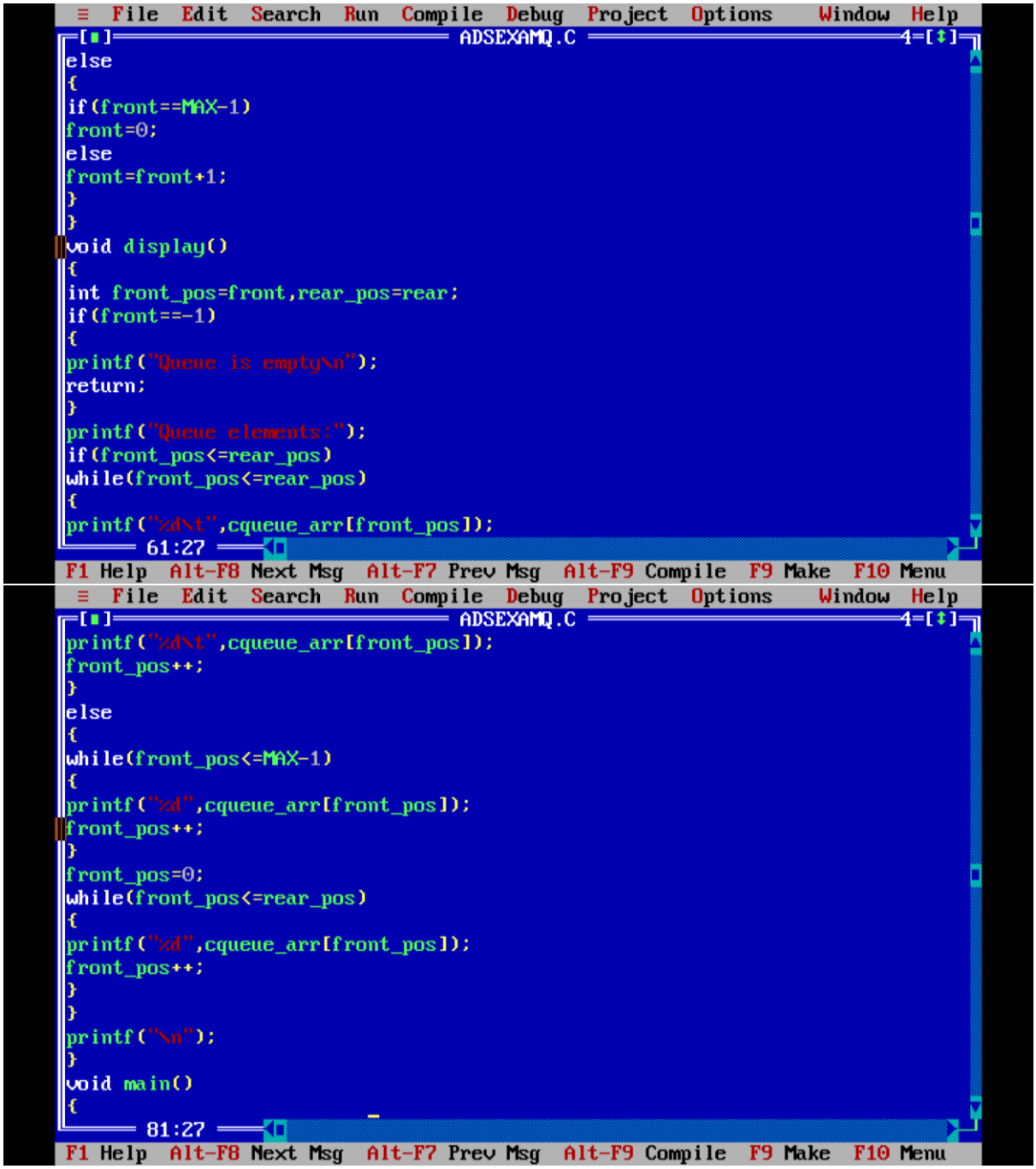


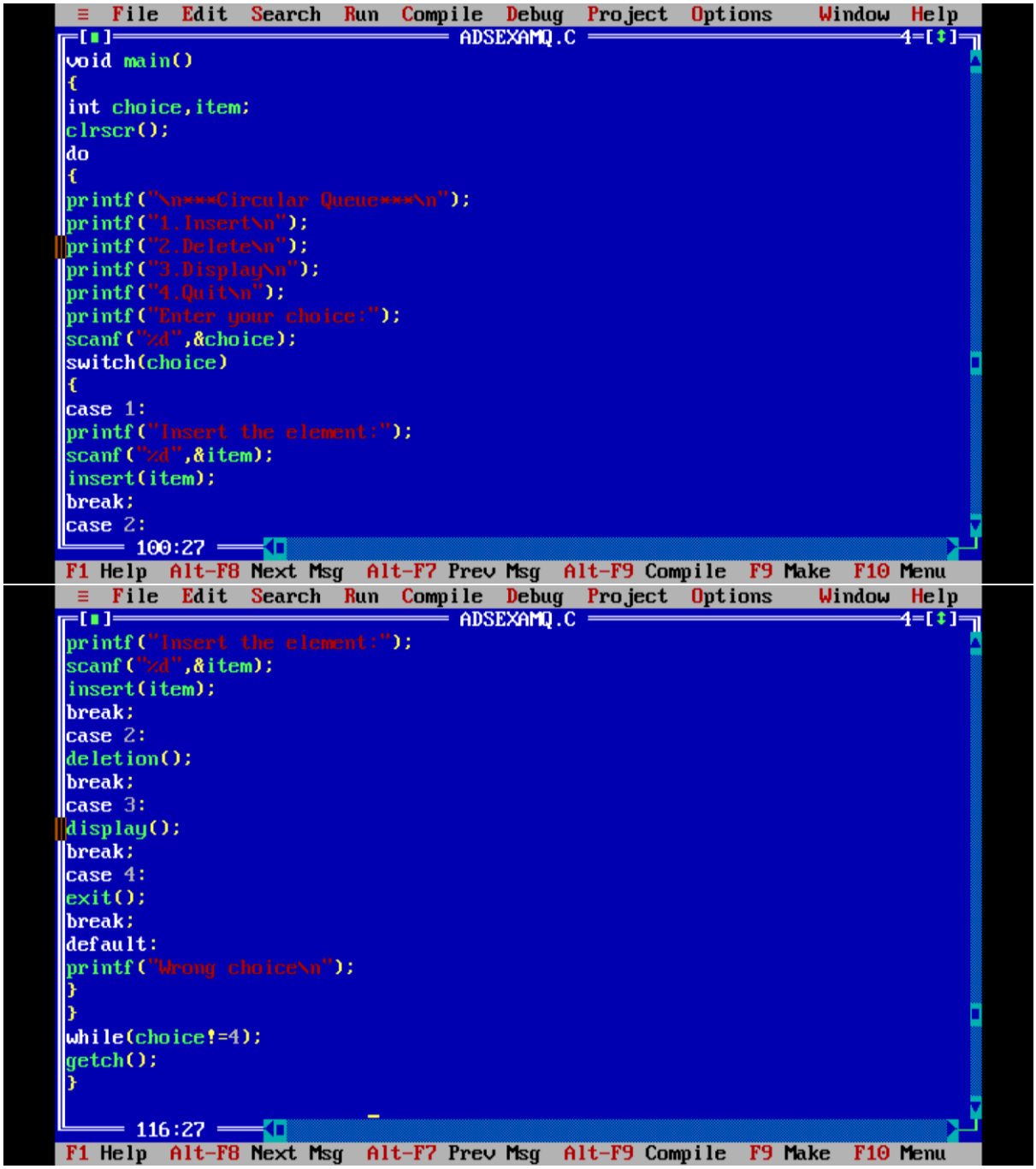



```
 Enter the size of the 1st array:3

 Enter the sorted elements of 1st array:
1 2 3

 Enter the size of the 2nd array:3

 Enter the sorted elements of 2nd array:
5 6 7

 After merging:

1
2
3
5
6
7_
```

2. Implement circular queue.




File Edit Search Run Compile Debug Project Options Window Help
ADSEXAMQ.C
else
{
if(front==MAX-1)
front=0;
else
front=front+1;
}
}
void display()
{
int front_pos=front,rear_pos=rear;
if(front==-1)
{
printf("Queue is empty\n");
return;
}
printf("Queue elements:");
if(front_pos<=rear_pos)
while(front_pos<=rear_pos)
{
printf("%d\t",cqueue_arr[front_pos]);
61:27
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu
File Edit Search Run Compile Debug Project Options Window Help
ADSEXAMQ.C
printf("%d\t",cqueue_arr[front_pos]);
front_pos++;
}
else
{
while(front_pos<=MAX-1)
{
printf("%d",cqueue_arr[front_pos]);
front_pos++;
}
front_pos=0;
while(front_pos<=rear_pos)
{
printf("%d",cqueue_arr[front_pos]);
front_pos++;
}
}
printf("\n");
}
void main()
{
81:27
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu


File Edit Search Run Compile Debug Project Options Window Help
ADSEXAMQ.C
void main()
{
int choice,item;
clrscr();
do
{
printf("\n***Circular Queue***\n");
printf("1.Insert\n");
printf("2.Delete\n");
printf("3.Display\n");
printf("4.Quit\n");
printf("Enter your choice:");
scanf("%d",&choice);
switch(choice)
{
case 1:
printf("Insert the element:");
scanf("%d",&item);
insert(item);
break;
case 2:
100:27
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu
File Edit Search Run Compile Debug Project Options Window Help
ADSEXAMQ.C
printf("Insert the element:");
scanf("%d",&item);
insert(item);
break;
case 2:
deletion();
break;
case 3:
display();
break;
case 4:
exit();
break;
default:
printf("Wrong choice\n");
}
}
while(choice!=4);
getch();
}
116:27
F1 Help Alt-F8 Next Msg Alt-F7 Prev Msg Alt-F9 Compile F9 Make F10 Menu

```
***Circular Queue***
1.Insert
2.Delete
3.Display
4.Quit
Enter your choice:1
Insert the element:10

***Circular Queue***
1.Insert
2.Delete
3.Display
4.Quit
Enter your choice:1
Insert the element:20

***Circular Queue***
1.Insert
2.Delete
3.Display
4.Quit
Enter your choice:
```

```
Enter your choice:1
Insert the element:20

***Circular Queue***
1.Insert
2.Delete
3.Display
4.Quit
Enter your choice:2
Element deleted from queue is:10

***Circular Queue***
1.Insert
2.Delete
3.Display
4.Quit
Enter your choice:3
Queue elements:20

***Circular Queue***
1.Insert
2.Delete
3.Display
4.Quit
Enter your choice:
```