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Course BSC IT

Section A

Q1.

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
 int Li[20], Ti[20], N, i, j, temp, st[10], ft[20], wt[20], tq[10], x=0;
 int totwt=0, totta=0;
 int awt, ats;
 char or[10][10], t[10];
 printf("Enter no. of customers:");
 scanf("%d", &N);
 for(i=0; i<N; i++)
 {
   printf("Order[%d]: OrderTime & CookingTime:", x=x+1);
   scanf("%s %d %d", or[i], &Ti[i], &Li[i]);
 }
 for(i=0; i<N; i++)
    for(j=0; j<N; i++)
    {
      if(Li[i]<Li[j])
      {
        temp = Ti[i];
        Ti[i] = Ti[j];
        Ti[j] = temp;
        temp = Li[i];
        Li[i] = Li[j];
        Li[j] = temp;
        strcpy(t, or[i]);
        strcpy(or[i], or[j]);
        strcpy(or[j], t);
 } }
```

```
for(i=0; i<N; i++)
{
  if(i==0)
    st[i] = Ti[i];
  else
    st[i] = ft[i-1];
  wt[i] = st[i] - Ti[i];
  ft[i] = st[i] + Li[i];
  tq[i] = ft[i] - Ti[i];
  totwt += wt[i];
  tottq += tq[i];
}
awt = (float) totwt/N;
atq = (float) tottq/N;
printf("\nOrder\tOrderTime\tCooking Time\tWaiting Time");
for(i=0; i<N; i++)
  printf("\n%d\t\t%d\t\t%d\t\t%d", or[i], Ti[i],
  Li[i], wt[i], tq[i]);
printf("\nAverage Waiting Time = : %d", awt);
getch();
}
```

input

```
Enter no. of customers:3
Order:Ordertime& Cooking time:1 0 3
Order:Ordertime& Cooking time:2 1 9
Order:Ordertime& Cooking time:3 2 6

Order    Ordertime(min)   Cookingtime(min)          Waitingtime(min)
1             0                 3                 0                 3
3             2                 6                 1                 7
2             1                 9                 8                17
Average waiting time =3

...Program finished with exit code 0
Press ENTER to exit console.
```