

NAME-BHAVNA

COURSE-BSC IT

SECTION-A

STD ID-20052005

Q.2

```
#include<stdio.h>
```

```
int main()
```

```
{
```

```
    int bt[20],p[20],wt[20],tat[20],i,j,n,total=0,pos,temp;
```

```
    float avg_wt,avg_tat;
```

```
    printf("Enter number of process:");
```

```
    scanf("%d",&n);
```

```
    printf("\nEnter Burst Time:\n");
```

```
    for(i=0;i<n;i++)
```

```
    {
```

```
        printf("p%d:",i+1);
```

```
        scanf("%d",&bt[i]);
```

```
        p[i]=i+1;
```

```
}
```

```
//sorting of burst times
```

```
for(i=0;i<n;i++)
```

```
{
```

```
    pos=i;
```

```
    for(j=i+1;j<n;j++)
```

```
    {
```

```
        if(bt[j]<bt[pos])
```

```
            pos=j;
```

```
    }
```

```
    temp=bt[i];
```

```
    bt[i]=bt[pos];
```

```
    bt[pos]=temp;
```

```
    temp=p[i];
```

```
    p[i]=p[pos];
```

```
    p[pos]=temp;
```

```
}
```

```
wt[0]=0;
```

```
for(i=1;i<n;i++)
```

```

{
    wt[i]=0;
    for(j=0;j<i;j++)
        wt[i]+=bt[j];
    total+=wt[i];
}
avg_wt=(float)total/n;
total=0;

printf("\nProcess\t Burst Time \tWaiting
Time\tTurnaround Time");
for(i=0;i<n;i++)
{
    tat[i]=bt[i]+wt[i];
    total+=tat[i];

    printf("\np%d\t\t %d\t\t
%d\t\t\t%d",p[i],bt[i],wt[i],tat[i]);
}

avg_tat=(float)total/n;

printf("\n\nAverage Waiting Time=%f",avg_wt);
printf("\n\nAverage Turnaround Time=%f\n",avg_tat);

```

}

```
input
Enter number of process:4

Enter Burst Time:
p1:3
p2:7
p3:6
p4:9

Process      Burst Time      Waiting Time      Turnaround Time
p1            3              0                 3
p3            6              3                 9
p2            7              9                16
p4            9             16                25

Average Waiting Time=7.000000
Average Turnaround Time=13.250000

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