

Program -4

```

#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;
    }
    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;

        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\n");
    for(i=0;i<n;i++)
    { tat[i]=bt[i]+wt[i];
      total+=tat[i];
      printf("p%d\t\t %d\t\t %d\t\t %d",p[i],bt[i],wt[i],tat[i]);
    } avg_tat=(float)total/n;
    printf("\nAverage Waiting Time=%f",avg_wt);
    printf("\nAverage Turnaround Time=%f",avg_tat);
}

```

Output

```

Enter number of process:4
Enter Burst Time:
1:12
2:23
3:20
4:23
Process Burst Time Waiting Time Turnaround Time
p1 12 0 12 12
p2 23 12 35 35
p3 20 12 32 32
p4 23 32 55 55
Average Waiting Time=24
Average Turnaround Time=44.25
Process exited after 9.231 seconds with return value 0
Press any key to continue . . .

```