Program:

```
#include<stdio.h>
int main()
{
 int bt[20],p[20],wt[20],tat[20],pri[20],i,j,k,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; //contains process number
 }
printf(" enter priority of the process ");
for(i=0;i<n;i++)
{
p[i] = i;
//printf("Priority of Process");
printf("p%d ",i+1);
scanf("%d",&pri[i]);
}
for(i=0;i<n;i++)
for(k=i+1;k<n;k++)
if(pri[i] > pri[k])
{
 temp=p[i];
 p[i]=p[k];
 p[k]=temp;
 temp=bt[i];
 bt[i]=bt[k];
 bt[k]=temp;
temp=pri[i];
 pri[i]=pri[k];
 pri[k]=temp;
}
 wt[0]=0;
 //calculate waiting time
 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; //average waiting time
 total=0;
 printf("\nProcess\t Burst Time \tPriority \tWaiting Time\tTurnaround Time");
 for(i=0;i<n;i++)
 {
 tat[i]=bt[i]+wt[i]; //calculate turnaround time
 total+=tat[i];
 printf("\np%d\t\t %d\t\t %d\t\t %d\t\t\t%d",p[i],bt[i],pri[i],wt[i],tat[i]);
 }
 avg_tat=(float)total/n; //average turnaround time
 printf("\n\nAverage Waiting Time=%f\n",avg_wt);
 printf("\nAverage Turnaround Time=%f\n",avg_tat);
}
```

Output:

```
Enter number of process:5

Enter Burst Time:
p1:9
p2:0
p3:7
p4:5
p5:1
 enter priority of the process p1 2
p2 1
p3 5
p4 4
p5 3

Process  Burst Time     Priority        Waiting Time    Turnaround Time
p1               0              1               0                       0
p0               9              2               0                       9
p4               1              3               9                       10
p3               5              4               10                      15
p2               7              5               15                      22

Average Waiting Time=6.800000

Average Turnaround Time=11.200000
```