

## **PROGRAM :**

```
#include <stdio.h>
struct program
{
    int at, bt, ct, tat, wt;
}p[100], temp;
int main()
{
    int i, j, n, rt[100], ts, time, flag=0, remain;
    float total_tat=0.0, total_wt=0.0, avg_tat, avg_wt;
    printf("Enter the total no. of processes : ");
    scanf("%d", &n);
    remain=n;
    for(i=0; i<n; i++)
    {
        printf("Enter AT of P%d : ", i+1);
        scanf("%d", &p[i].at);
        printf("Enter BT of P%d : ", i+1);
        scanf("%d", &p[i].bt);
        rt[i]=p[i].bt;
    }
    printf("Enter the time slice : ");
    scanf("%d", &ts);
    printf("\nProcess\t\tAT\t\tBT\t\tTAT\t\tWT\n");
    for(time=0, i=0; remain!=0; )
    {
        if(rt[i]<=ts && rt[i]>0)
        {
            time=time+rt[i];
            rt[i]=0;
            flag=1;
        }
        else if(rt[i]>0)
        {
            rt[i]=rt[i]-ts;
            time=time+ts;
        }
        if(rt[i]==0 && flag==1)
        {
            remain--;
            printf("%d\t\t%d\t\t%d\t\t%d\t\t%d\n", i+1, p[i].at, p[i].bt, time-p[i].at, time-p[i].at-p[i].bt);
            total_tat=total_tat+time-p[i].at;
            total_wt=total_wt+time-p[i].at-p[i].bt;
            flag=0;
        }
        if(i==n-1)
            i=0;
        else if(p[i+1].at<=time)
            i++;
        else
            i=0;
    }
}
```

```

    }
    avg_tat=total_tat/n;
    avg_wt=total_wt/n;
    printf("Avg TAT = %.2f\nAvg WT = %.2f",avg_tat,avg_wt);
    return 0;
}

```

### **OUTPUT:**

Enter the total no. of processes : 6  
 Enter AT of P1 : 0  
 Enter BT of P1 : 5  
 Enter AT of P2 : 1  
 Enter BT of P2 : 6  
 Enter AT of P3 : 2  
 Enter BT of P3 : 3  
 Enter AT of P4 : 3  
 Enter BT of P4 : 1  
 Enter AT of P5 : 4  
 Enter BT of P5 : 5  
 Enter AT of P6 : 6  
 Enter BT of P6 : 4  
 Enter the time slice : 4

Process	AT	BT	TAT	WT
3	2	3	9	6
4	3	1	9	8
6	6	4	14	10
1	0	5	21	16
2	1	6	22	16
5	4	5	20	15

Avg TAT = 15.83

Avg WT = 11.83