

PROGRAM NUMBER : 06

PROGRAM:

```
#include<stdio.h>
#include<conio.h>
int main()
{
int i, NOP,sum=0,count=0, y, quant, wt=0, tat=0, at[10], bt[10], temp[10];float
avg_wt, avg_tat;
printf(" Total number of process in the system: ");
scanf("%d", &NOP);
y = NOP;
for(i=0; i<NOP; i++)
{
printf("\n Enter the Arrival and Burst time of the Process[%d]\n", i+1);
printf(" Arrivalttime is: \t");
scanf("%d", &at[i]);
printf(" \nBurst time is: \t");
scanf("%d", &bt[i]); temp[i] =
bt[i];
}
printf("Enter the Time Quantum for the process: \t");
scanf("%d", &quant);
printf("\n Process No \t\t Burst Time \t\t TAT \t\t Waiting Time ");
for(sum=0, i = 0;y!=0; )
{
if(temp[i] <= quant && temp[i] > 0)
```

```

{
sum = sum + temp[i];
temp[i] = 0;
count=1;
}
else if(temp[i] > 0)
{
temp[i] = temp[i] - quant;sum
= sum + quant;
}
if(temp[i]==0 && count==1)
{
y--;
printf("\nProcess No[%d] \t\t %d\t\t\t\t %d\t\t\t\t %d", i+1, bt[i], sum-at[i], sum-
at[i]-bt[i]);
wt = wt+sum-at[i]-bt[i];
tat=tat+sum-at[i]; count =0;
}
if(i==NOP-1)
{
i=0;
}
else if(at[i+1]<=sum)
{
i++;
}
else

```

```

{
i=0;
}
}

avg_wt = wt * 1.0/NOP;
avg_tat = tat * 1.0/NOP;

printf("\n Average Turn Around Time: \t%f", avg_wt);
printf("\n Average Waiting Time: \t%f", avg_tat); getch();
}

```

OUTPUT:

```

Enter the number of processes: 3
Enter burst time for process 1: 1
Enter priority for process 1: 2
Enter arrival time for process 1: 3

Enter burst time for process 2: 4
Enter priority for process 2: 5
Enter arrival time for process 2: 6

Enter burst time for process 3: 7
Enter priority for process 3: 8
Enter arrival time for process 3: 9

Process Burst Time      Priority      Arrival Time      Waiting Time      Turnaround Time
P1       1              2             3                 0                 1
P2       4              5             6                 0                 4
P3       7              8             9                 1                 8

Average Waiting Time: 0.33
Average Turnaround Time: 4.33

```