## Operating Systems Practical 9

Practical 9

# Aim : Write a program to calculate total waiting time and turn around time of n processes with Round Robin cpu scheduling algorithm .

**Code:**

#include<stdio.h>

int main()

{

int cnt,j,n,t,remain,flag=0,tq; int wt=0,tat=0,at[10],bt[10],rt[10]; printf("Enter Total Process:\t "); scanf("%d",&n); remain=n; for(cnt=0;cnt<n;cnt++)

{

printf("Enter Arrival Time and Burst Time for Process Process

Number %d :",cnt+1); scanf("%d",&at[cnt]); scanf("%d",&bt[cnt]); rt[cnt]=bt[cnt];

}

printf("Enter Time Quantum:\t"); scanf("%d",&tq); printf("\n\nProcess\t|Turnaround Time|Waiting Time\n\n"); for(t=0,cnt=0;remain!=0;)

{

if(rt[cnt]<=tq && rt[cnt]>0)

{ t+=rt[cnt]; rt[cnt]=0; flag=1;

} else if(rt[cnt]>0)

{ rt[cnt]-=tq; t+=tq;

}

if(rt[cnt]==0 && flag==1)

{

remain--; printf("P[%d]\t|\t%d\t|\t%d\n",cnt+1,t-at[cnt],t- at[cnt]-bt[cnt]); wt+=t-at[cnt]-bt[cnt]; tat+=t-at[cnt]; flag=0;

}

if(cnt==n-1) cnt=0;

else if(at[cnt+1]<=t) cnt++;

else

cnt=0;

}

printf("\nAverage Waiting Time= %f\n",wt\*1.0/n); printf("Avg Turnaround Time = %f",tat\*1.0/n);

return 0;

}

# Output:

## Batch : AB20