**PRACTICAL-10**

**AIM:WRITE A PROGRAM TO IMPLEMENT PREEMPTIVE PRIORITY BASED SCHEDULING ALGORITHM.**

**SOL:**

**#include<stdio.h>**

**int main()**

**{**

**int i,j,n,time,sum\_wait=0,sum\_turnaround=0,smallest;**

**int at[10],bt[10],pt[10],rt[10],remain;**

**printf("\nEnter number of Processes: ");**

**scanf("%d",&n);**

**remain=n;**

**printf("\nEnter Arrival Time, Burst Time and Priority for:\n ");**

**for(i=0;i<n;i++)**

**{**

**printf("\nProcess %d: ",i+1);**

**scanf("%d",&at[i]);**

**scanf("%d",&bt[i]);**

**scanf("%d",&pt[i]);**

**rt[i]=bt[i];**

**}**

**pt[9]=11;**

**for(time=0;remain!=0;time++)**

**{**

**smallest=9;**

**for(i=0;i<n;i++)**

**{**

**if(at[i]<=time && pt[i]<pt[smallest] && rt[i]>0)**

**{**

**smallest=i;**

**}**

**}**

**rt[smallest]--;**

**if(rt[smallest]==0)**

**{**

**remain--;**

**printf("\nProcess %d: Waiting Time= %d\t\tTurn Around Time= %d",smallest+1,time+1-at[smallest],time+1-at[smallest]-** **bt[smallest]);**

**sum\_wait+=time+1-at[smallest];**

**sum\_turnaround+=time+1-at[smallest]-bt[smallest];**

**}**

**}**

**float wt=sum\_wait\*1.0/n;**

**float tat=sum\_turnaround\*1.0/n;**

**printf("\nAverage Waiting Time: %f",wt);**

**printf("\nAverage Turn Around Time: %f",tat);**

**}**

**OUTPUT:**

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