**National University of Modern Languages**

Logo

Description automatically generated

**Lab Report#06**

**Roll # 2340**

**Class: BSCS 5B Morning**

**Subject: Operating System(Lab)**

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**Non-Preemptive Scheduling:**

#include<iostream>

using namespace std;

int main()

{

int a[10],b[10],x[10],pr[10]={0};

int waiting[10],turnaround[10],completion[10];

int i,j,smallest,count=0,time,n;

double avg=0,tt=0,end;

cout<<"\nEnter the number of Processes: ";

cin>>n;

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

{

cout<<"\nEnter arrival time of process: ";

cin>>a[i];

}

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

{

cout<<"\nEnter burst time of process: ";

cin>>b[i];

}

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

{

cout<<"\nEnter priority of process: ";

cin>>pr[i];

}

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

x[i]=b[i];

pr[9]=-1;

for(time=0;count!=n;time++)

{

smallest=9;

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

{

if(a[i]<=time && pr[i]>pr[smallest] && b[i]>0 )

smallest=i;

}

time+=b[smallest]-1;

b[smallest]=-1;

count++;

end=time+1;

completion[smallest] = end;

waiting[smallest] = end - a[smallest] - x[smallest];

turnaround[smallest] = end - a[smallest];

}

cout<<"Process"<<"\t"<< "burst-time"<<"\t"<<"arrival-time" <<"\t"<<"waiting-time" <<"\t"<<"turnaround-time"<< "\t"<<"completion-time"<<"\t"<<"Priority"<<endl;

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

{

cout<<"p"<<i+1<<"\t\t"<<x[i]<<"\t\t"<<a[i]<<"\t\t"<<waiting[i]<<"\t\t"<<turnaround[i]<<"\t\t"<<completion[i]<<"\t\t"<<pr[i]<<endl;

avg = avg + waiting[i];

tt = tt + turnaround[i];

}

cout<<"\n\nAverage waiting time ="<<avg/n;

cout<<" Average Turnaround time ="<<tt/n<<endl;

}

**OUTPUT:**

**Text

Description automatically generated with medium confidence**

**A screenshot of a computer

Description automatically generated with low confidence**