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| **Ex.No:5** | **CPU SCHEDULING ALGORITHMS** |
| **PRIORITY** |

# AIM:

To write a C program for implementation of Priority scheduling algorithms.

# ALGORITHM:

Step 1: Inside the structure declare the variables.

Step 2: Declare the variable i,j as integer, totwtime and totttime is equal to zero. Step 3: Get the value of „n‟ assign p and allocate the memory.

Step 4: Inside the for loop get the value of burst time and priority. Step 5: Assign wtime as zero .

Step 6: Check p[i].pri is greater than p[j].pri .

Step 7: Calculate the total of burst time and waiting time and assign as turnaround time. Step 8: Stop the program.

# PROGRAM:

#include<stdio.h> #include<stdio.h> #include<stdlib.h> typedef struct

{

int pno; int pri; int pri; int btime; int wtime;

}sp;

int main()

{

int i,j,n;

int tbm=0,totwtime=0,totttime=0; sp \*p,t;

printf("\n PRIORITY SCHEDULING.\n");

printf("\n enter the no of process ...\n"); scanf("%d",&n); p=(sp\*)malloc(sizeof(sp));

printf("enter the burst time and priority:\n"); for(i=0;i<n;i++)

{

printf("process%d:”,i+1); scanf("%d%d",&p[i].btime,&p[i].pri);

p[i].pno=i+1;

p[i].wtime=0;

}

for(i=0;i<n-1;i++) for(j=i+1;j<n;j++)

{

if(p[i].pri>p[j].pri)

{

t=p[i]; p[i]=p[j]; p[j]=t;

}

}

printf("\n process\tbursttime\twaiting time\tturnaround time\n"); for(i=0;i<n;i++)

{

totwtime+=p[i].wtime=tbm; tbm+=p[i].btime; printf("\n%d\t\t%d",p[i].pno,p[i].btime);

printf("\t\t%d\t\t%d",p[i].wtime,p[i].wtime+p[i].btime);

}

totttime=tbm+totwtime;

printf("\n total waiting time:%d",totwtime);

printf("\n average waiting time:%f",(float)totwtime/n); printf("\n total turnaround time:%d",totttime); printf("\n avg turnaround time:%f",(float)totttime/n);

}