Ex. No.: 6c)
Date:
6/3/25

PRIORITY SCHEDULING

Aim:

To implement priority scheduling technique

Algorithm:

1. Get the number of processes from the user.
2. Read the process name, burst time and priority of process.
3. Sort based on burst time of all processes in ascending order based priority 4.
Calculate the total waiting time and total turnaround time for each process 5.
Display the process name & burst time for each process.
6. Display the total waiting time, average waiting time, turnaround time

Program Code:

```
#include <stdio.h>
#include<stdlib.h>
int main (){
    int n;
    printf("Enter no of process:\n");
    scanf("%d",&n);
    int bt[n],p[n],id[n],at=0,tat[n],wt[n],
    at at=0,awt=0;
    printf("Enter the burst time");
    for(int i=0;i<n;i++)
        scanf("%d",&bt[i]);
    printf("Enter the priority of processes:\n");
    for(int i=0;i<n;i++)
        scanf("%d",&pe[i]);
    int sp[n];
```

```
for (int i=0; i<n; i++)
    sp[i] = p[i];
for (int i=0; i<n-1; i++) {
    for (int j=0; j<n-1-i; j++) {
        if (sp[j+1] < sp[j]) {
            int temp = sp[j+1];
            sp[j+1] = sp[j];
            sp[i] = temp; } } }
int c=0;
for (int i=0; i<n; i++) {
    for (int j=0; j<n; j++) {
        if (sp[i] == p[j]) {
            ct[j] = c + bt[j];
            c = c + [j]
            tat[j] = ct[j] - at;
            wt[j] = tat[j] - bt[j]; } }
printf ("\n Completion Time\n");
for (int i=0; i<n; i++)
    printf ("%d\n", ct[i]);
printf ("\n Turn around time\n");
for (int i=0; i<n; i++)
    printf ("%d\n", tat[i]);
printf ("\n Wait time\n");
```

```
for (int i=0; i<n; i++)
    printf("%d\n", wt[i]);
for(int i=0; i<n; i++) {
    atat = atat + tat[i];
    awt = awt + wt[i]; }
printf("\n Average Turnaround Time: %.2f\n
    Average Wait time: %.2f\n", (float)atat/n,
                (float)awt/n);
```

Output

Enter the no of process: 4

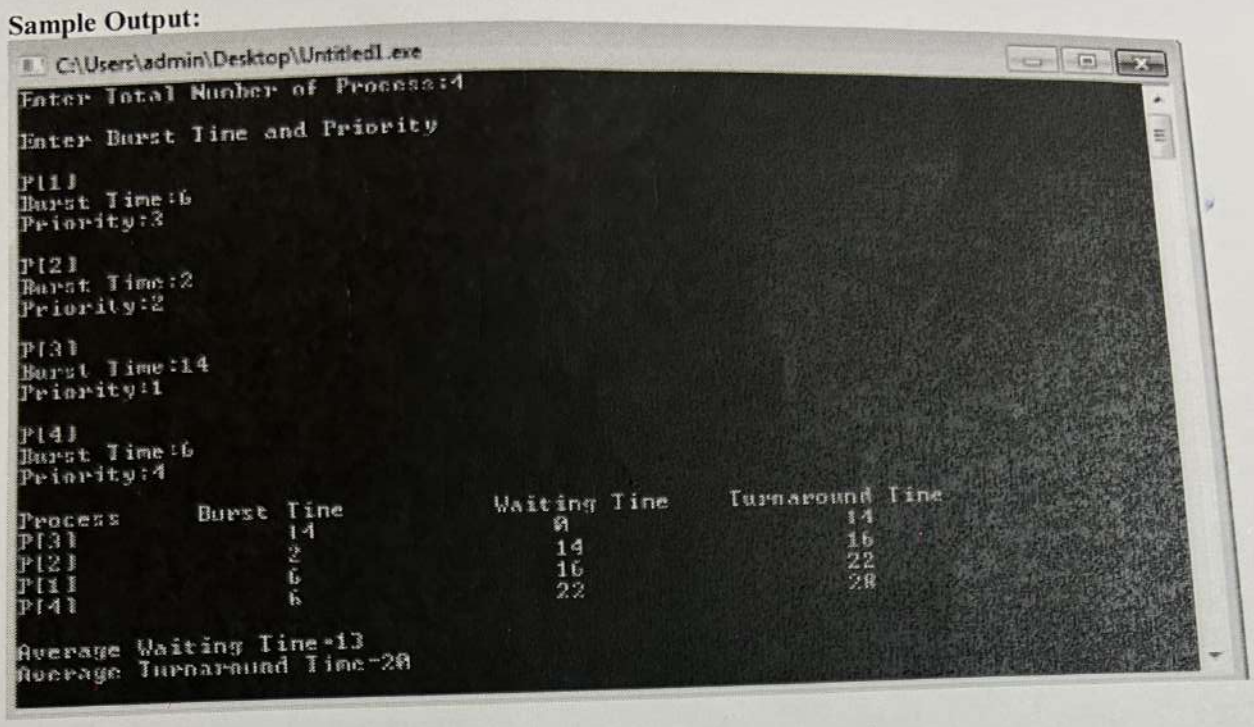
Enter the burst time: 13
5
8
4

Enter the priority of process:
3
2
4
1

Completion time: 22
9
30
4

Turn around time: 22
9
30
4

Sample Output:



Wait time : 9
4
22
0

Average Turnaround Time : 16.25ms

Average wait time ; 8.75ms

Result:

The priority scheduling technique is implement using c

Process	BT (ms)	Priority	CT (ms)	TAT (ms)	WT
P_1	13	3	22	22	9
P_2	5	2	9	9	4
P_3	8	4	30	30	22
P_4	4	1	4	4	0

Average Turnaround Time : 16.25 ms

Average Wait time : 8.25 ms

P_4	P_2	P_1	P_3