Ex. No.: 6c)
Date: 5/3/25

PRIORITY SCHEDULING

Aim:

To implement priority scheduling technique

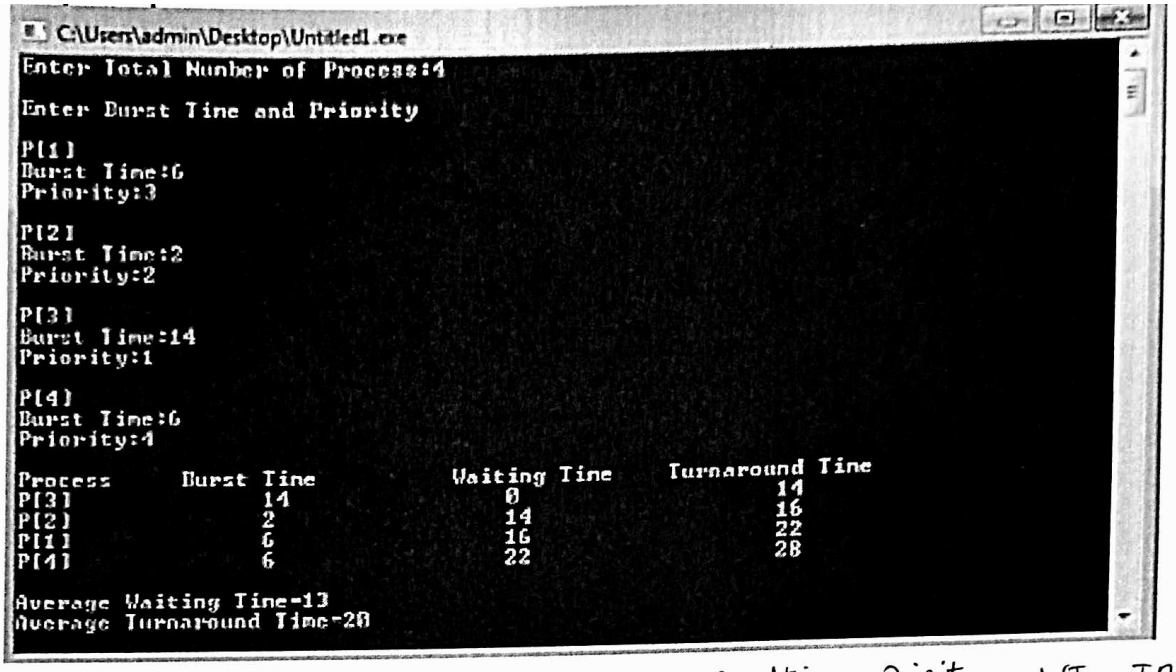
Algorithm:

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>
int main() {
    int n;
    printf("Enter no. of process\n");
    scanf("%d", &n);
    int P[n], bt[n], wt[n], tat[n], pr[n], t1, t2, t3;
    float sum1=0, sum2=0
    printf("Enter process no, BT & Priority\n");
    for (int i=0; i<n; i++) {
        scanf("%d %d %d", &P[i], &bt[i], &pr[i]);
    }
    for(int i=0; i<n-1; i++) {
        for(int j=0; j<n-1-i; j++) {
            if(pr[j] > pr[j+1]) {
                t1 = pr[j];
                pr[j] = pr[j+1];
                pr[j+1] = t1;
```

```
                t2 = p[j];
                p[j] = p[j+1];
                p[j+1] = t2;
                t3 = bt[j];
                bt[j] = bt[j+1];
                bt[j+1] = t3;
            }
        }
    }
    wt[0] = 0;
    for (int i=1; i<n; i++) {
        wt[i] = wt[i-1] + bt[i-1];
        s1 += wt[i];
    }
    for(int i=0; i<n; i++) {
        tat[i] = wt[i] + bt[i];
        s2 += tat[i];
    }
    for (int i=0; i<n; i++) {
        printf("%d\t %d\t %d\t %d\t %d\t\n",
                p[i], bt[i], pr[i], wt[i], tat[i]);
    }
Printf("\n Avg Waiting time = %.2f", s1/n);
Printf("\n Avg TAT = %.2f", s2/n);
}
```



OUTPUT:

Enter No of process

4

Enter process no, BT, priority

1	8	2
2	4	1
3	6	4
4	3	3

Process	Burst time	Priority	WT	TAT
P_2	4	1	0	
P_1	8	2	4	
P_4	3	3	12	
P_3	6	4	21	

Avg waiting Time = 7.75ms

Avg TAT = 13.00ms

Result:

Thus the Priority Algorithm is executed