Ex. No.: 6c)
Date: 8/3/25

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:");
  scanf("%d", &n);
  int b[n],t[n], p[n], c[n], ta[n],
 w [n], pr[n], ar[n];
 prinf(" Arrival Time: ");
 for(int i=0; i<n; i++)
 { scanf("%d", & ar);
 }
 printf("Priority:");
 for(int i=0; i<n; i++)
 {
  scanf("%d", &pr[i]);
 }
```

```
printf("Burst time for each
 process:");
for(int i=0; i<n; i++)
{
  scanf("%.d", &b[i]);
  t[i]=b[i];
  p[i]=i+1;
}
for(int i=0; i<n -1; i++)
{
 for(int j = i+1; j<n; j++)
 { if (pr[i]> pr[j])
    int temp=pr[i];
    pr[i]= pr[j];
    pr[j]=temp;
```

```
      temp = b[i];
       b[i]=b[j];
       b[j]=temp;

      temp=p[i];
      P[i]=p[j];
      P[j]=temp;
    }
  }
 }

 float avg_ta=Sum_ta/n;
 flat avg_w=sum_w/n;

 printf("Process\tPriority\tBurst Time\tArrival Time\t
 Waiting Time\t Turnaround Time\n");
 for(int i=0; i<n;i++){
    printf("%d\t%d\t%d\t%d %\t%\n", px[i], pr[i], b[i],
    ar[i],w[i], ta[i]);
 }
 printf("The avg Waiting Time is: %0.2f\n", avg_w);
 printf ("The avg Turnaround Time is :%.2f \n", avg_ta);
 return 0;

 }
```

Enter no. of processes: 4

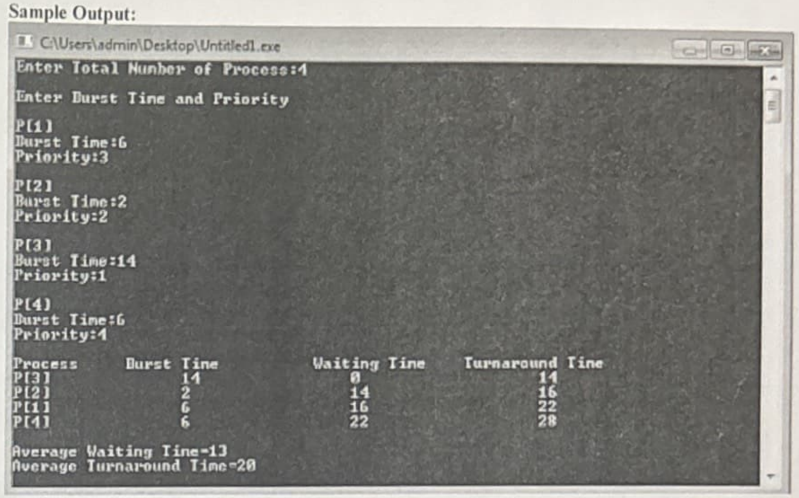
Enter arrival time : 0

Enter priority: 3 1 4 2

Enter burst time : 5 4 2 1

Process	Priority	Burst time	Arrival Time	Waiting Time	Turn Time
2	1	4	0	0	4
4	2	1	0	4	5
1	3	5	0	5	10
3	4	2	0	10	12

Sample Output:



C:\Users\admin\Desktop\Untitled1.exe

```
Enter Total Number of Process:4

Enter Burst Time and Priority

P[1]
Burst Time:6
Priority:3

P[2]
Burst Time:2
Priority:2

P[3]
Burst Time:14
Priority:1

P[4]
Burst Time:6
Priority:4

Process     Burst Time            Waiting Time     Turnaround Time
P[3]              14                    0                14
P[2]              2                     14               16
P[1]              6                     16               22
P[4]              6                     22               28

Average Waiting Time=13
Average Turnaround Time=20
```

Result:

Hence C program for Priority scheduling is executed and written successfully.