Ex. No.: 6c)
Date: 27/02/25

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 number of process: ");
  scanf("%d", &n);
  int burst[2][n]
  int priority[n];
  for(int i=0; i<n; i++)
  { printf("Enter burst time of processes %d:", i+1);
    burst[0][1] = i+1;
    scanf("%d", &burst[1][i]);
    printf("Enter priority of process %d:", i+1);
    scanf("%d", &priority[i]);
  }
  for(int i=0; i<n-1; i++)
  { for(int j=0; j<n-i-1; j++)
    { if(priority[j] > priority[j+1]) {
        int temp = burst[1][j];
        burst[1][j] = burst[1][j+1];
        burst[1][j+1] = temp;
        temp = burst[0][j];
        burst[0][j] = burst[0][j+1];
```

```
            burst [0][j+1] = temp;
            temp = priority [j];
            priority [j] = priority [j+1];
            priority [j+1] = temp;
        }
    }
}
int turaro[n], wait[n], avgt = 0, avgw = 0, wait[0]=0;
turaro[0] = burst[1][0];
for (int i=1; i<n; i++)
{
    waiting [i] = turaro [i-1];
    turaro [i] = burst [1][i] + turaro [i-1];
}
for (int i=0; i<n; i++)
{
    avgt += turaro [i];
    avgw += wait [i];
}
printf ("\n Process \t Burst Time \t Priority \t TurnAround
Time \t Waiting Time \n");
for (int i=0; i<n; i++)
{
    printf ("%d \t %d \t\t %d \t\t %d \t\t %d \n",
 burst [0][i], burst [0][i], burst [0][i], priority [i],
 turaro [i], wait [i]);
}
printf ("\n Average Turn Around Time: %.2f\n", (float) avgt/n);
printf ("\n Average Waiting Time : %.2f \n ", (float) avgw/n);
return 0;
}
```

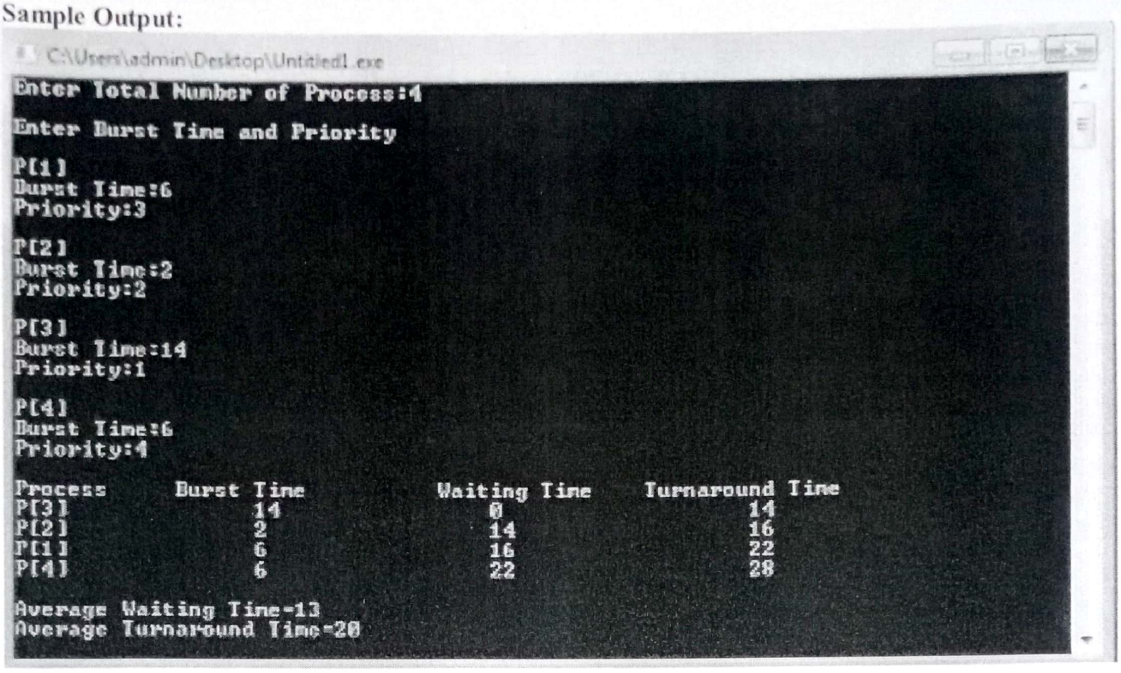
Output :-

Enter no of processes : 3
Enter burst time of processes 1 : 10
Enter priority of process 1 : 2
Enter burst Time of process 2 : 5
Enter priority of process 2 : 0
Enter burst Time of process 3 : 8
Enter priority of process 3 :

Process	Burst Time	Priority	Turn Around Time	Waiting Time
2	5	0	5	0
3	8	1	13	5
1	10	2	23	13

Average Turnaround Time : 13.67 ms
Average Waiting Time : 6.00 ms

Sample Output:



Result:

Hence the Priority Scheduling is Implemented and Executed Successfully