OS PRACTICAL 5

Write a program that implements (with no premption) scheduling algorithm.

CODE:

```
#include <iostream>
#include <iomanip>
using namespace std;

int main() {
  int total_process;
  int burst_time[30], waiting_time[30], turnaround_time[30];
  float average_waiting_time = 0.0, average_turnaround_time = 0.0;


  cout << "Enter the Number of Processes to Execute: ";
  cin >> total_process;


  cout << "Enter the Burst Time of Processes:\n";
  for (int count = 0; count < total_process; count++) {
     cout << "Process [" << count + 1 << "]: ";
     cin >> burst_time[count];
  }


  for (int i = 0; i < total_process - 1; i++) {
     for (int j = i + 1; j < total_process; j++) {
        if (burst_time[i] > burst_time[j]) {
           int temp = burst_time[i];
           burst_time[i] = burst_time[j];
           burst_time[j] = temp;
        }
     }
  }


  waiting_time[0] = 0;


  for (int count = 1; count < total_process; count++) {
```

```
    waiting_time[count] = waiting_time[count - 1] + burst_time[count - 1];
  }
  cout << "\nProcess\tBurst Time\tWaiting Time\tTurnaround Time\n";
  for (int count = 0; count < total_process; count++) {
    turnaround_time[count] = burst_time[count] + waiting_time[count];
    average_waiting_time += waiting_time[count];
    average_turnaround_time += turnaround_time[count];
    cout << "Process [" << count + 1 << "]\t"
        << burst_time[count] << "\t\t"
        << waiting_time[count] << "\t\t"
        << turnaround_time[count] << endl;
  }


  average_waiting_time /= total_process;
  average_turnaround_time /= total_process;

  cout << "\nAverage Waiting Time = " << fixed << setprecision(2) << average_waiting_time << endl;
   cout << "Average Turnaround Time = " << fixed << setprecision(2) << average_turnaround_time <<
endl;

  return 0;
}
```

OUTPUT :