1. Write a C program to support the OS to do the short term scheduling using the following algorithms.
2. Round Robin (quantum 2 sec)
3. Priority Scheduling - Preemptive
4. Priority Scheduling – Non preemptive

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Process | P1 | P2 | P3 | P4 | P5 |
| Arrival Time | 0 | 4 | 3 | 6 | 7 |
| CPU Burst | 5 | 4 | 7 | 3 | 1 |

Prepare a Gantt chart and calculate the Average Waiting Time and the Turnaround Time.  
Display which algorithm improves the efficiency for this group of processes.

Note: The output must have your register number and name