## Lab Five

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## 1 QUESTION ONE

1.1 Consider the following set of processes, with the length of CPU burst given in milliseconds:

Process	Burst Time	Priority
$P_1$	10	3
$P_2$	1	1
$P_3$	2	3
$\mathrm{P}_4$	1	4
$P_5$	5	2

The processes are assumed to have arrived in the order P1, P2, P3, P4, P5, all at time 0.

- a. Draw four Gantt charts that illustrate the execution of these processes using the following scheduling algorithms: FCFS, SJF, nonpreemptive priority (a smaller priority number implies a higher priority), and RR (quantum = 1).
- b. What is the turnaround time of each process for each of the scheduling algorithms in part a?
- c. What is the waiting time of each process for each of the scheduling algorithms in part a?
- d. Which of the algorithms results in the minimum average waiting time (over all processes)?

Shortest Job First

Below is a photo of my written response to the question. Answers are respectively labled a, b, and c.

C. FCFS P.
PH PS FCFS e. P.
SJF P, P2 P3 P4 P5  b. TT: 19+1+4+2+9=35/5  C. WT: 9+0+2+1+4=10/5  Th: 19/5  NPP P, P2 P3 P4 P5  b. TT: 16+1+18+19+6=60/5
1 WT. 6+0+16+18+1=41/5 Th: 19/5