CS471: Operating System Concepts
Fall 2007
(Lecture: TR 11:25-12:40 PM)
Homework #2
Points: 20
Due: September 14, 2007

Question 1 [Points 2] Exercise 5.5 (Briefly, explain your answer)
Question 2 [Points 3] Exercise 5.7 with 5 I/O-bound and 2 CPU-bound tasks.
Question 3 [Points 12] Exercise 5.4 using the following data. SHOW YOUR WORK

Process	Arrival time	Burst time	Priority
P1	5	10	3
P2	2	15	4
P3	9	5	5
P4	15	20	1
P5	12	4	2

Question 2 [Points 3] Consider the exponential average formula used to predict the length of the next CPU burst of a process. The initial estimate of the CPU burst time is $\tau_0 = 100$ milliseconds and $\alpha = 0.8$. The following are the actual CPU burst observed. t0=80 msec; t1=120 msec; t2=60 msec. Compute τ_1, τ_2, and τ_3.