MIT 16.070 Exam 3 Grading Guidelines:

Question 1: **8 points total.**
2 points for each of the 4 parts. You get it right or you don't.

Question 2:
Part a)
8 points total.
_ 4 points for correct answer. Task 5 will complete in 120 msec.
_ 4 points for adequate explanation of their answer.
Part b)
14 points total
_ 5 points for understanding that task 1 is blocked because it shares the semaphore with task 4
_ up to 9 points for correctness of diagram or table. Partial credit given for understanding that tasks may be ready to run but cannot have the CPU because a higher priority task is already using it.
Part c)
8 points total
_ 4 points for identifying priority inheritance as the solution
_ 4 points for correct definition of priority inheritance

Question 3:
Part a)
12 points total
_ 6 points for time tag or flag solution
_ 6 points for realization that you need a semaphore lock on the shared memory
Part b)
12 points total.
_ Up to 6 points for identifying good/bad status as return value on a function with call by reference.
_ Up to 6 points for describing the reasoning behind the choice.

Question 4: **24 points total.**
8 points each for any of the answers given in the solutions.

Question 5: **14 points total (7 points each part)**
Part A) Compare and Contrast
2 pts - all information presented is accurate
2 pts - stressed that Big O is approximate
3 pts - mentioned that generally speaking O(n^2) is slower than O (n)
Part B) Does one run in 1/100 the time of the other?
3 pts - no. if anything it would run at 1/10 the time
2 pts - any comparison is approximate
2 pts - any big O comparison is only valid for large N