This is a closed book and notes ten-minute quiz. Write all of your answers directly on this paper.

Good Luck!!

1. (12 points total) True/False. Circle the correct answer for each of the following questions.

   a. A CPU scheduling algorithm cannot provide both fairness and minimum average response time.

   TRUE
   FALSE

   True. This is a fundamental tradeoff between fairness and minimizing avg response time.

   b. A correct application using the Banker’s algorithm for all requests will never deadlock.

   TRUE
   FALSE

   True. The Banker’s algorithm only allows requests that leave an app in a SAFE state.

   c. SRTF and SJF are optimal page replacement algorithms that cannot be implemented in practice.

   TRUE
   FALSE

   False. SRTF and SJF are optimal algorithms, but they are scheduling algorithms.

2. (8 points total) Fill in the TWO blanks below.

   With ___Hoare________ monitors, the Signaler gives up the lock and CPU to a Waiter; the Waiter runs immediately. The Waiter gives up the lock and processor back to the Signaler when it exits the critical section or if it waits again.

   With ___Mesa________ monitors, the Signaler keeps lock and processor. The Waiter is placed on the ready queue with no special priority.