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**

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

   **TRUE**  
   **FALSE**

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

   **TRUE**  
   **FALSE**

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

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