Part a and b of part 2 of this assignment was designed with respect to the three requirements of the critical-section problem: mutual exclusion, progress, and bounded waiting.

Mutual Exclusion:
The rubric file is the only shared resource that must not be written by more than one TA at a time. In part a, this restriction is intentionally not enforced, but part b introduces semaphores to guarantee mutual exclusion. This ensures that only one TA can write to the rubric at any moment, preventing inconsistent updates. Reading the rubric is not protected because the assignment specifies that all TAs may read it concurrently.

Progress:
Progress ensures that if no TA is inside a critical section, and multiple TAs want to enter it, one will be selected without unnecessary delay. This satisfies the progress requirement because it never causes a TA to be prevented from making progress unless another TA is in a critical section.

Bounded Waiting:
Bounded waiting requires that there is a limit on how many times other processes can enter the critical section before a waiting process gets its turn. Therefore, any TA waiting to correct the rubric will eventually get the opportunity, fulfilling bounded waiting. It is preserved by the fairness of semaphore queues and by the limited number of rubric modifications each TA performs.