

## SYSC 4001 Operating Systems

### Assignment 3 - Part 2 Report

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2. c)

No deadlock or livelock was observed. In Part 2a, processes run concurrently without synchronization, which can cause race conditions such as multiple TAs accessing or modifying the rubric simultaneously or marking the same exam question, but all processes eventually complete. In Part 2b, semaphores control access to the rubric and exam loading, ensuring that only one TA writes to the rubric at a time and coordinating the loading of exams. This prevents deadlock and livelock when the TAs still mark questions concurrently. The execution order for marking exams remains random, but rubric updates are consecutive.