SUBJECT: Dennis George Ex 7

DATE: / /

Group: Kevin McConnell, Thuan Nguyen

1) In the situation that thread p is much faster than thread q, thread p could constently be passing the test-and-set() and q could never get a chance to execute.

2) It is impossible for p4 and q4 to happen at the same time. In other words $\neg(p_4 \wedge q_4)$, due to the nature of test-and-set(). As soon as one thread gets a 0 from the test-and-set(), the other thread will read 1. This is due to test-and-set being atomic.

3) $L2 = 0 \Rightarrow p_2 \ldots p_3$

If we break out of the loop, we know the thread p needs to still be in the loop.