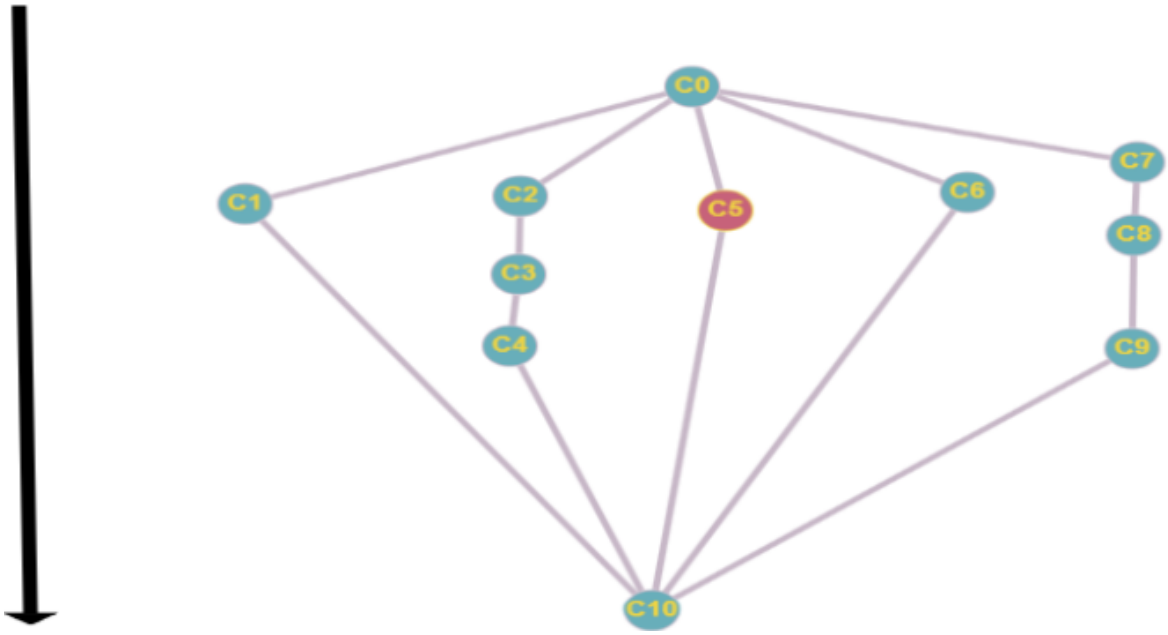
Batuhan Aktan
CISC 324
Assignment 2

1) False

2) D. All of the above

3) The problem with semaphores is that they cause busy waiting. Busy waiting is the usage of cpu resources during the critical section by the processes that are waiting to enter the critical section. Semaphores do not eliminate busy waiting but rather move it from the entry section to the critical sections.

4) Process direction is pointed with the arrow



5) Any process can be interrupted at any point and this is applicable to processes even when they are in their critical section. Critical section just refers to the fact that the process is using shareable data, furthermore the fact that the inconsistencies may occur due to interruption is another proof of this process even though it is not the only reason.

6) Yes, this system will be in a deadlocked state since the trail P2 → R4 → P4 → R2 then loops back to P2 without any options to finalize the cycle like the other loop does since R1 has 2 points that it can use to exit out of it, it is not a certainty that it will be deadlocked, however, that is the case for the P2 loop.