CSC 18B Quiz #3 (25 pts) - May 3rd, 2016

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All answers must be of your own work. Type out your answers and submit your quiz through Blackboard for Quiz #2 as either a MS Word document or PDF file (Mac users using Pages, make sure to Export to MS Word).

- 1. Two tasks that are operating *concurrently* are both making progress at once. (4points)
 - b. concurrently
- 2. Two tasks that are operating *in parallel* are executing simultaneously. (4 points)
 - b. in parallel
- 3. Name all of the states that are in a thread's life cycle. (5 points)

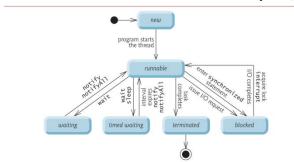


Fig. 23.1 | Thread life-cycle UML state diagram.

- 1. New and Runnable States
- 2. Waiting State
- 3. Timed Waiting State
- 4. Blocked State
- 5. Terminated State

Section 23.2 in Early Objects Book

4. A new thread begins its life cycle by transitioning to the <u>new</u> state. (4 points)

b. new. 23.2.1 New and Runnable States

A new thread begins its life cycle in the *new* state. It remains in this state until the program starts the thread, which places it in the *runnable* state. A thread in the *runnable* state is considered to be executing its task.

A waiting thread transitions back to the <u>runnable</u> state only when another thread notifies it to continue executing.
4 points)

23.2.2 Waiting State

a. runnable Sometimes a *runnable* thread transitions to the *waiting* state while it waits for another thread to perform a task. A *waiting* thread transitions back to the *runnable* state only when

another thread notifies it to continue executing.