CS 314-002 Operating Systems
Spring 2017
Quiz #2 on January 26, 2017 (SOLUTIONS)

Your Last Three Digits: ________________
(please do NOT write all of your student ID or your name)

Grade: ______

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(1) What does “PCB” stand for? Why do operating systems need PCB?

PCB stands for “Process Control Block”.

Operating systems need PCB for managing each process (e.g., who owns the processes, how much processor time each process has used, and etc.).

(2) In the following sentence: “The long-term scheduler is the main component that controls _______ in multitasking operating systems”, fill out the blank by a word that best fits to the blank.

“degree of multitasking”

(3) What is “the medium-term process scheduling”? 

The medium-term process scheduling is responsible for removing some processes from the short-term scheduling when processes in the short-term scheduling start using too much memory space and/or processor resources after they start running (i.e., after they are approved by the long-term scheduler).
(4) What is “non-preemptive process scheduling”?

Non-preemptive process scheduling is a type of process scheduling that lets the currently running process to hold a processor until it completes (or until it voluntarily releases a processor).

(5) What is “response time” (in the context of process scheduling)?

Response time is the earliest time when a process can make its outputs (“responses”) after it is submitted for execution.