CS 314 Operating Systems
Spring 2022
Quiz #2 on February 3, 2022

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

Grade: ______

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(1) 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.

The long-term scheduler controls degree (of multitasking) in multitasking operating systems.

(2) What is “Blocked” state in “the short-term process scheduling”? 

The “blocked” state in the short-term scheduling is for suspending (“blocking” or “holding”) processes that can not make progress because they are waiting for some events (e.g., waiting for I/O devices to respond).

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

The medium-term process scheduling is a mechanism that removes some processes in the short-term scheduling to the blocked state in the long-term scheduling when a computer system does not have enough resources (e.g., processor resource and memory space).
(4) What is “turnaround time” (in the context of process scheduling)?

The turn-around time for computer systems is the time interval from the time a process is submitted to a system for execution until the process finishes execution.

(5) Show a sketch of the integration of the short-term, medium-term, and long-term process scheduling as a directed state-transition diagram.