

Operating Systems

November 24, 2012

CSC 227

Fall 2012/2013

Homework 4

Points: 20

Due: December 01, 2012: 2:00 pm

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**Note: A handwritten solution is unacceptable.**

1. [4.0 points] What is the difference in the CPU's structure in the following two cases: Multiprogramming processes, Multiprogramming threads.
2. [4.0 points] Provide two programming examples in which multithreading provides better performance than a single-threaded solution?
3. [2.0 points] What's the difference between many-to-many and two-level models?
4. [2.0 points] Describe two ways for implementing a thread library?
5. [4.0 points] What is the difference between a process and a thread? Which one consumes more resources?
6. [4.0 points] What is a task in Linux OS? Can a thread creation be done using fork() system call in Linux?