Ceng 328 - Quiz 3

Solve all multiple choice questions.

For Tuesday section

1. (1.75 pts) Pthreads refers to ____

   A) the POSIX standard.

   B) an implementation for thread behavior.

   C) a specification for thread behavior.

   D) an API for process creation and synchronization.

2. (1.75 pts) Cancellation points are associated with ____ cancellation.

   A) asynchronous

   B) deferred

   C) synchronous

   D) non-deferred

3. (1.75 pts) Which of the following would be an acceptable signal handling scheme for a multithreaded program?

   A) Deliver the signal to the thread to which the signal applies.

   B) Deliver the signal to every thread in the process.

   C) Deliver the signal to only certain threads in the process.

   D) All of the above

4. (1.75 pts) A ____ provides an API for creating and managing threads.

   A) set of system calls

   B) multicore system

   C) thread library

   D) multithreading model

Choose only one question.

5. (8 pts) Why should a web server not run as a single-threaded process?

6. (8 pts) List the four major categories of the benefits of multithreaded programming. Briefly explain each.

Solve all multiple choice questions.
For Friday section

1. (1.75 pts) The _____ multithreading model multiplexes many user-level threads to a smaller or equal number of kernel threads.

    A) many-to-one model

    B) one-to-one model

    C) many-to-many model

    D) many-to-some model

2. (1.75 pts) Thread-specific data is data that _____

    A) is not associated with any process

    B) has been modified by the thread, but not yet updated to the parent process

    C) is generated by the thread independent of the thread's process

    D) is copied and not shared with the parent process

3. (1.75 pts) Windows XP (or Linux) uses the _____

    A) one-to-one model

    B) many-to-one model

    C) one-to many-model

    D) many-to-many model

4. (1.75 pts) A _____ provides an API for creating and managing threads.

    A) set of system calls

    B) multicore system

    C) thread library

    D) multithreading model

Choose only one question.

5. (8 pts) Some UNIX systems have two versions of $fork()$. Describe the function of each version, as well as how to decide which version to use.

6. (8 pts) Describe the difference between the $fork()$ and $clone()$ Linux system calls.