COMP3520 Operating System Internals

Homework 2

1. List three general categories of information in a process control block. Give a detailed description for each category.

2. Describe the steps a kernel takes to context switch between processes.

3. What is a synchronous event and what is an asynchronous event? Give examples.

4. For the five-state processing model (Figure 3.6 in the textbook), briefly define each state.

5. What resources are used when a thread is created? How do they differ from those used when a process is created?

6. A disadvantage of ULTs is that when a ULT executes a system, not only is that thread blocked, but also all of the threads within the process are blocked. Why is that so?

7. Provide two programming examples of multithreading giving improved performance over a single-threaded solution.