**Assignment 1**

1. Name three ways in which the processor can transition from user mode to kernel mode?

2. What is the difference between kernel mode and user mode? Why is the difference important to an operating system?

3. What is the purpose of interrupts? How does an interrupt differ from a trap? Can traps be generated intentionally by a user program? If so, for what purpose?

4. The services and functions provided by an operating system can be divided into two main categories. Briefly describe the two categories, and discuss how they differ.

5. Describe three general methods for passing parameters to the operating system.

6. What are the advantages and disadvantages of using the same system call interface for manipulating both files and devices?

7. What is the purpose of system calls? What is the purpose of system programs?

8. Distinguish between the client–server and peer-to-peer models of distributed systems.