

CSCI-330 Operating Systems
Section 12.1, 12.2
Quiz 13

Name _____

1. What is concurrency?
2. Name the three basic approaches that modern operating systems provide for building concurrent programs.
3. What failures do concurrent servers based on processes avoid?
4. How do concurrent servers based on processes share information?
5. The `select()` system call does not immediately return. When does it return?
6. What command do you use to view the man page for the `select()` system call?
7. Suppose you have a `fd_set` containing file descriptors 1 and 17 and you want `select()` to monitor both of the descriptors. What is the value of first argument to `select()`?
8. What does the second argument to `select()` hold?
9. What is the significance of the value returned by `select()`?
10. What does `FD_ZERO` do?
11. What does `FD_SET` do?
12. What does `FD_CLR` do?
13. What does `FD_ISSET` do?
14. What does every logical flow in an event driven server based on I/O multiplexing have access to?
15. Why are servers based on I/O multiplexing more efficient than servers based on processes?
16. What is one vulnerability of the concurrent echo server that is described in the textbook?
17. What is the maximum number of CPU cores that a server based on I/O multiplexing can utilize?