Your name:

CSE 30341 Operating Systems: Module 5 Exam
OPEN BOOK, OPEN NOTES, CLOSED ELECTRONIC SEARCHES
INDIVIDUAL EFFORT
DURATION: 30 MINUTES
All questions carry equal weight. Ockham's Razor principles (or Keep It Simple, Stupid: KISS principles) hold. *Make no more assumptions than is needed*; you only have 10 minutes per question.

1) Consider a disk drive containing user files. Would you design the operating system to use buffering, spooling, caching or combination? Would you use polled I/O or interrupt-driven I/O? Give reasons for your choices (Exercise 13.3)

2) How can systems that implement the principle of least privilege still have protection failures that lead to security violations? (Exercise 14.14)

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3) An experimental addition to UNIX allows a user to connect a watchdog program to a file. The watchdog is invoked whenever a program requests access to the file. The watchdog then either grants or denies access to the file. Discuss two pros and two cons of using watchdogs for security (Exercise 15.5)