NAME: _____   SCORE: _____

CLOSED BOOK. YOU CAN HAVE ONE PAGE OF NOTES. EACH QUESTION IS WORTH 20 POINTS.

1. **True or False**

T ___   **F _X_**   The Macintosh OS was strongly influenced by Windows 1.0. (Just the opposite)

T ___   **F _X_**   A disk access is one thousand times slower than a main memory access. (>10^5 times)

2. What is the major disadvantage of the ***master/slave*** organization for operating systems?

    In the master/slave organization for multiprocessor operating systems, the kernel can only run on a specific processing unit while the other units can only execute user-level processes. This creates a potential bottleneck that will manifest itself whenever the processes running on the other processing units do too many system calls.

3. What would be the major disadvantage of an operating system lacking ***timer interrupts***?

    An OS lacking timer interrupts would be unable to detect when a running process has exceeded its allotted time.

4. Which bad thing can you do with a ***live distribution of Linux on a CD***?

    We could reboot the system with the live distribution CD and bypass all file access protection.

5. What is the major advantage of having ***privileged instructions***?

    Since privileged instructions include I/O instructions and user user-level processes are prevented from axecuting them, the kernel can control access to disks and other secondary storage devices.