

CS 162 Section 6

True/False

1. If there is very high CPU utilization, then it is likely that thrashing is occurring.
2. If a particular IO device implements a blocking interface, then you will need multiple threads to have concurrent operations which use that device.
3. For IO devices which receive new data very frequently, it is more efficient to interrupt the CPU than to have the CPU poll the device.

Short Answer

4. Two-level Page Tables:
 - i) Give a two to three sentence description of a two-level page table.
 - ii) Briefly (2 sentences) state one advantage AND one disadvantage of two-level page tables.
5. What is Belady's anomaly and which page replacement algorithm(s) could display it?
6. We looked at disabling CPU interrupts as a simple way to create a critical section in the kernel. Name two drawbacks of this approach. One of them should be a problem that is exacerbated by trends in modern computer hardware.

