

CSCI-342 Operating Systems

Quiz 7

Chapter 9.1 – 9.3

Name _____

1. What is an “elegant interaction of hardware exceptions, hardware address translation, main memory, disk files, and kernel software that provides each process with a large, uniform, and private address space”?
2. What is the unit of physical memory that is referenced by an address?
3. What is address translation?
4. What facility on the CPU performs address translations?
5. How many addresses are there in a 64-bit address space?
6. Find k: $2^{32} = k \text{ G}$
7. What is the largest address in a 64-bit address space?
8. What is the transfer unit between a disk drive and RAM?
9. What is a virtual page?
10. What is a physical page?
11. DRAM uses write-back rather than write-through. What is the difference?
12. What is a page table?
13. How is a page hit detected?
14. Why do page faults occur?
15. What happens when a page fault occurs?
16. What is thrashing?

Given some pid in <pid>, what is in /proc/<pid>?

What is in /proc/<pid>/maps?