Now with ANSWERS!

Week 1 Topics – Partitions and Booting

Before class read these questions over. Complete them in class as time permits and finish them in the current week. If you don't understand a question, ask for clarification in class. Questions from quizzes will form the bulk of the midterm and final exams.

1. How many partitions can an MBR hard disk support? 4 What are the types of these partitions? Primary, Extended, Logical
2. How many of the partitions on a hard drive can be directly bootable? One (The first on MBR)
3. Windows and Linux see each partition as a separate hard drive. How do each of these operating systems refer to these "drives"? Windows assigns drive letters (C:, D:, …) Linux creates "Character Device" files (/dev/sda, /dev/sdb, /dev/sdc)
4. What is the tool that allows us to modify the partition table in:
5. Dos: fdisk.exe
6. Windows: diskpart.exe
7. Linux: fdisk
8. Why should we back up the contents of a disk before messing with the partition table? To prevent data loss if something goes horribly wrong.
9. Can an extended partition contain data? No - Not directly
10. What is a computer? "A machine that executes prerecorded instructions on input data producing output data."
11. What do the acronyms POST, MBR, EFI, and GPT stand for? Power-On Self Test, Master Boot Record, (Unified) Extensible Firmware Interface, GUID Partition Table
12. With respect to computers, what do we mean by bootstrapping? The computer loads its operating system pieces in successively larger pieces.
13. In general what happens during the boot process? Computer performs POST, BIOS reads the MBR and loads the "Bootloader", Bootloader loads the OS.

Choose the correct response to each of the multiple-choice questions. Note that there may be more than one correct response to each question.

14. If you're notified that your system is starting in Safe Mode or performing a Safe Boot, which of the following applies?
    (a) The operating system needs to be patched.
    (b) The normal boot sequence halted prematurely.
    (c) The operating system is operating unsafely.
    (d) The operating system is out of date.