CS312 :: Homework 2

Answer the following questions in a paragraph or two each. You'll need to research the information online, if you don't know it.

This assignment asks questions about some of the laptop hardware you tore apart in Lab 2, hard drive management, file storage and backup, and asks you to briefly play around with taking snapshots in VirtualBox.

Questions

1. What is a DIMM memory module? When a slot in a laptop is labelled "DIMM", what official form factor name is actually usually intended? (Hint: it's very close to "DIMM") *(3 points)*
2. All you really need to open up a desktop or laptop is a couple screwdrivers and often a pry-tool of some kind. Time issues aside, do you find it easy? What kinds of electronics do you think you *shouldn't* open? *(3 points)*
3. What is the backlight in a laptop screen? How is the light generated? *(3 points)*
4. What is a Kensington Security Slot? The laptop we disassembled in Lab 2 had one, as do most laptops. *(3 points)*
5. Describe a scenario where data could be deleted from a HDD yet recovered afterwards. *(3 points)*
6. What is the TRIM command, as used on SSDs? How does it solve the problem of "write amplification"? *(5 points)*
7. Is it OK to perform disk management operations on a drive, that contains files you care about, but which are not backed up? Are these always safe? *(3 points)*
8. What is your current backup strategy for your personal & school files? If you don't have one, what plan would you propose to keep YOUR important files safe? What is the chance you'll adopt that plan? *(3 points)*
9. What is the difference between a file system and a volume? *(3 points)*
10. Name another few virtual machine hypervisors other than VirtualBox. *(3 points)*
11. In VirtualBox, take a snapshot of one of the class reference virtual machines, start it up, make some changes to it, shut it down, then restore back to the previous state. Take a screenshot of the VirtualBox main program showing this hierarchy of snapshots and include it along with your other answers. The snapshot should NOT say "changed" in the hierarchy list your screenshot shows. *(8 points)*