

CS312 :: Homework 1

Answer the following questions in a paragraph or two each, or with a small diagram, on a separate sheet of paper. You'll need to research some information online, if you don't know it.

This assignment addresses several aspects of computer hardware, including interesting but little-known components, similarities between components, PC disassembly, and some historical and political aspects of the primary vendors. Enjoy the process! You'll gain a deeper insight into the content presented in week 1.

When you're done, please convert what you have into a .pdf file and upload it to Canvas.

Questions

1. What does the clock generator on a motherboard do? What is the resonant circuit in the generator usually made from? *(4 points)*
2. What is an anti-static wrist strap for? Why is it important to be grounded when working inside a PC? *(4 points)*
3. What is the commonly-given maximum resolution of the ubiquitous VGA connector at 85 HZ? Does it surprise you that it reaches that resolution? Why or why not? *(4 points)*
4. Discuss the term "Wintel", and its dominance in the PC marketplace. *(6 points)*
5. A customer of yours wants to replace the CPU in their custom PC (i.e. it's built from off-the-shelf parts, not made by a big vendor like HP, Dell, etc.). Write up a brief set of instructions, walking the user through how to do it (this will probably be easier to answer after you complete Lab 1). *(8 points)*
6. What is a motherboard beep code? Why are they important? *(4 points)*
7. What is USB-C, and how is it an improvement? *(4 points)*
8. Draw the following video jacks: *(6 points)*
 - a. HDMI (full-size)
 - b. VGA
 - c. DisplayPort (full-size)
 - d. DVI-I