

Name _____

Group # _____

CPADS HW Activity II – Part II

“Get It Together!”

The goal of this third activity is to reinstall the CPU in the good systems (with thermal compound). Then we will take a look at the system BIOS to see the various options available. PLEASE ASK IF YOU HAVE ANY QUESTIONS DURING THIS ACTIVITY!

1. Motherboard ID

Since the hardware you will be working on may be different from the first activity, we will again practice identifying the various motherboard components (but will not reassemble the PC just yet).

Motherboard Specs

Manufacturer _____

Model _____

*I/O Slots – give number available **and example component** attached there*

PCIe x16 _____

PCIe x1 _____

PCI _____

SATA _____

*External Ports – give number **and example component** attached there*

USB 2.0 _____

USB 3.0 _____

LAN _____

VGA _____

DVI _____

HDMI _____

Audio _____

Name _____

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2. PC Assembly

Assemble the PC as described below, turn the computer on, and hopefully it will boot.

- Install two memory sticks, **installed in dual-channel configuration** (see motherboard manual)
- Connect the power connectors for the motherboard (both main and auxiliary)
- Connect the front panel power switch
- An optical drive is already installed in the case, connect the supplied SATA power cable and a SATA data cable to the optical drive. Be sure to connect the other end of these two cables to the appropriate connectors on your power supply and motherboard.
- Connect the supplied SATA power cable and a SATA data cable to the supplied SSD. You do NOT need to mount the SSD in the case. Be sure to connect the other end of these two cables to the appropriate connectors on your power supply and motherboard.

3. BIOS configuration

Oftentimes it will be beneficial to modify the computer hardware settings via the BIOS (Basic Input/Output System). The BIOS is usually brought up by pressing either , <F2>, or <F10> when the computer is *first booting up*, i.e. before the OS begins to load. Watch the boot screen carefully when your machine first starts up to see what key presses are required to enter the BIOS.

Reboot your machine and enter the BIOS (aka Setup menu).

Select either “Load Optimal Settings” or “Load Default Settings.” Go through the various menus and set the following options (in no particular order):

- Disable the floppy drive and controller (if present)
- Set the boot sequence to CD-ROM/HDD
- Disable the logo startup screen (so POST messages appear when the computer is turned on).

Find the list of SATA devices and note the devices that are installed and on what channel they appear.

Find the CPU information in the BIOS and list the information below:

CPU Family: _____

CPU Speed: _____