**ITM-301 Homework #2 (Chapter 4)**

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**Reviewing the Basics**

1. What are the three most popular form factors used for motherboards?

**A: ATX, microATX, and Mini-ITX.**

1. What type of memory does the LGA1155 socket work with? Which socket was it designed to replace?

**A: The LGA1155 socket work with DDR3 memory. It was designed to replace LGA1156 socket.**

1. Does the Sandy Bridge chipset family use two chipset housings on the motherboard or a single chipset housing? The Nehalem chipset?

**A: Sandy Bridge chipset family uses a single chipset housing, which houses the Platform Controller Hub. The Nehalem chipset family uses two chipset housings. North Bridge and South Bridge use an Accelerated hub architecture.**

1. Which is a better performing Intel chipset, the X58 or the H67?

**A: H67.**

1. Which part of a Nehalem chipset connects directly to the processor, the North Bridge or the South Bridge?

**A: North Bridge.**

1. What are the names of the two technologies used to install multiple video cards in the same system?

**A: SLI and CorssFire.**

1. If you are installing an expansion card into a case that does not have enough clearance above the motherboard for the card, what device can you use to solve the problem?

**A: Using a PCI rise card.**

1. What new type of power connector was introduced with PCIe Version 2.0? How much power does this connector provide?

**A: 8-pin PCIe connector which provides 150 W. Then, the allowed wattage of one PCIe 2.0 card will be 300 watts.**

1. Which chip on the motherboard does Windows Bitlocker Encryption use to secure the hard drive?

**A: TPM chip.**

1. What are two reasons you might decide to flash BIOS?

**A: To solve a problem with the motherboard (such as the onboard video port does not work) or to use a new motherboard feature.**

1. What can you do if the power-on password and the supervisor password to a system have been forgotten?

**A: Use the jumpers on the motherboard to reset the passwords.**

1. How is CMOS RAM powered when the system is unplugged?

**A: By the CMOS battery.**

1. What is the purpose of installing standoffs or spacers between the motherboard and the case?

**A: Components on the back of the motherboard will not touch the case and cause a short.**

1. When installing a motherboard, suppose you forget to connect the wires from the case to the front panel header. Will you be able to power up the system? Why or why not?

**A: No, because the power button will not work until the power wire is connected to the motherboard.**

**Thinking Critically**

1. Why don’t all buses on a motherboard operate at the same speed?

**A: Because not all devices to which the buses are connected transmit data at the same speed. The speeds of different hardware components are evolving at different rates.**