1. Reviewing the Basics
2. List six types of video ports.

Answer: D-Sub, HDMI, DVI, Thunderbolt port, S-Video, Display port

1. Which is faster, a Hi-Speed USB port or a SuperSpeed USB port?

Answer: SuperSpeed USB port

1. What type of output does an S/PDIF port provide?

Answer: Connects to an external home theater audio system providing digital audio output and the best signal quality.

1. What is the purpose of an expansion slot on a motherboard?

Answer: It is for an expansion card, with provides a port or other function that is not provided by th motherboard.

1. What should be the setting for a dual-voltage selector switch on a power supply when using the computer in the United States?

Answer: Set the switch to 115 volts.

1. How is the best way to determine if a cable inside a computer is a data and instruction cable or a power cable?

Answer: Follow it back to its source to determine it.

1. What technology standard is commonly used today for hard drives to interface with the motherboard in a system?

Answer: IDE

1. How many pins did the first P1 power connector to the motherboard have that was used with the original ATX?

Answer: 20 pins

1. What type of expansion slot requires extra power so that 4 more pins had to be added to the older 20-pin P1 power connector on the motherboard?

Answer: PCI Express

1. What device might require extra power so that it uses the 12V 6-pin power connector? In what two locations might you find the connector?

Answer: A PCI Express video card. Two location of this connector on the PCI card itself and the one on the motherboard.

1. What is the purpose of the 4-pin auxiliary connector on a motherboard?

Answer: To provide an additional 12V of power to the processor.

1. What is the purpose of the 4-pin Molex connector?

Answer: To power older IDE(PATA) drives and some newer SATA drives.

1. Why are laptops usually more expensive than desktop computers with comparable power and features?

Answer: Laptops use compact hard drives that can withstand movement even during operation, and small memory modules and CPUs that require less voltage than regular components. In general, it costs more to make similar components that take up less space and require less power.

1. What type of bus is used by ExpressCard slots?

Answer: PCI Express

1. Which port do you use to connect a docking station to a laptop?

Answer: Docking port

1. What type of memory module is used in a desktop computer? laptop?

Answer: For laptop : SO DIMM, For desktop : DIMM

1. What wireless technology is used when two smart phones in close proximity exchange contact information?

Answer: Bluetooth

1. Which tool can a computer hardware technician use when taking apart a computer to best protect computer components against ESD?

Answer: Use a ground bracelet

1. What is the purpose of a POST diagnostic card?

Answer: It is for determining if startup BIOS can communicate correctly with essential hardware components required for a successful boot.

1. What are the three purposes accomplished by the motherboard BIOS?

Answer: 1. System BIOS manages essential devices before the OS is launched.

2. Start-up BIOS is used to start the computer.

3. BIOS setup or CMOS setup is used to change the motherboard configuration or settings.

Thinking Critically

1. You purchase a new desktop computer that does not have wireless capability, and then you decide that you want to use a wireless connection to the Internet. What are the least expensive ways (pick two) to upgrade your system to wireless?
   1. Trade in the computer for another computer that has wireless installed
   2. Purchase a second computer that has wireless
   3. Purchase a wireless expansion card and install it in your system
   4. Purchase a USB wireless adapter and connect it to the computer by way of a USB port

Answers: c and d

1. What type of computer is likely to use SO-DIMMs, have an internal power supply, and use a desktop processor socket?

Answer: laptop

1. A friend asks you for help in determining the best product to buy: a laptop, tablet, or smart phone. She is a paralegal and spends a lot of time at the courthouse researching real estate titles. She wants a device to take notes with as she works. List three questions you would ask her to help her make her decision.

Answers may vary. Possible answers:

* How much is your budget?
* Portability is important? If you drive a car or use the public transportation?
* Purpose is for just taking notes or others?

1. When troubleshooting a computer hardware problem, which tool might help with each of the following problems?
   1. You suspect the network port on a computer is not functioning.
   2. The system fails at the beginning of the boot and nothing appears on the screen.
   3. A hard drive is not working and you suspect the Molex power connector from the power supply might be the source of the problem.

Answers: a. Loopback plug

b. POST diagnostic card

c. Multimeter