# 2.6 Module Quiz

**Date:** 11/16/2025, 6:41:10 PM

**Time Spent:** 12:16

**Score: 100%**

Passing Score: 80%

Question 1 ✓ Correct

Which connector on a computer is used to attach a mouse to a modern computer system?

- (●) USB ✓ Correct
- ( ) RJ45
- ( ) High-density (three-row) female DB-15
- ( ) Low-density (two-row) female DB-15

**Explanation**

Whether wired or wireless, a mouse is most commonly attached to a computer using a USB connector.

A DB-15 connector with two rows is commonly used for joysticks.

The DB-15 connector with three rows is used for connecting CRT monitors to the video card.

The RJ45 connector is used for Ethernet network connections.

**Related Content**

2.1.4 Universal Serial Bus Cables

resources\questions\q_cable_conn_usb_mouse_pp7.question.xml

Question 2 ✓ Correct

A support technician needs to connect the USB port on a portable monitor to an HDMI port on a laptop to extend the laptop's display.

What kind of cable should the technician use to accomplish this?

- ○ EIDE
- ◉ Adapter ✓ Correct
- ○ SCSI
- ○ DVI

**Explanation**

The technician should use an adapter cable to connect the HDMI port on the laptop with a USB port on the monitor. An adapter cable has connectors for two different cable types at each end.

A small computer system interface (SCSI) can connect both internal devices and external peripherals, such as scanners and printers, but must enable termination on the first and last devices in the chain.

An extended integrated drive electronics (EIDE) cable typically has three color-coded connectors and was the principal mass storage interface for desktop PCs for many years.

A digital visual interface (DVI) supports both analog and digital outputs. DVI is likely to be encountered on older display devices and video cards.

**Related Content**

- 2.1.10 HDMI and DisplayPort Video Cables
- 2.3.4 Adapter Cables
- 5.3.5 Copper Cabling Connectors

resources\questions\q_adapter_cables_01.question.xml

Question 3 ✓ Correct

You are tasked with setting up a workstation for an employee who needs to connect their older monitor to a desktop computer. The monitor has a VGA port, and the desktop computer has a VGA port as well.

The employee requires a resolution of 1920x1080 (Full HD) for their work.

Which of the following actions should you take to ensure the setup works properly?

- Replace the monitor with one that has an HDMI port for better compatibility.
- Use a VGA to HDMI adapter to connect the monitor to the desktop computer.
- Use a DVI cable instead of a VGA cable to achieve the required resolution.
- Use a VGA cable and ensure it is of high quality to support the Full HD resolution. ✓ Correct

**Explanation**

VGA typically supports resolutions up to Full HD (1920x1080), depending on the quality of the cable. By selecting a high-quality VGA cable, you can ensure the setup meets the resolution requirement. This aligns with the Apply level of Bloom's Taxonomy, as it requires the learner to use knowledge of VGA capabilities in a practical scenario.

Both the monitor and the desktop computer already have VGA ports, so an adapter is unnecessary. Additionally, using an adapter would not improve the resolution or quality beyond what VGA can support.

The monitor and desktop computer both have VGA ports, not DVI ports. A DVI cable cannot be used in this scenario without additional adapters, which are not mentioned in the question.

Replacing the monitor is unnecessary. The existing monitor with a VGA port can support the required resolution (1920x1080) when paired with a high-quality VGA cable. This option also does not apply the knowledge of VGA capabilities effectively.

**Related Content**

2.3.1 DVI and VGA Video Cables

resources\questions\q_dvi_and_vga_video_cables_06.question.xml

Question 4 ✓ Correct

You are an IT technician for your company. As part of your job, you must manage and support a wide variety of devices.

Which of the following devices MOST likely use a microUSB connector?

- ○ Network hubs and modems
- ◉ SmartphoneTablets ✓ Correct
- ○ Scanners
- ○ Printers

**Explanation**

microUSB connectors are typically used by compact, portable electronic devices, such as smartphones, tablets, GPS devices, and some external storage peripherals.

Printers and scanners typically use a Type-B connector. Some networking devices, such as hubs and modems, also use Type-B connectors.

**Related Content**

2.1.4 Universal Serial Bus Cables

resources\questions\q_cable_conn_micro_usb_connector_pp7.question.xml

Question 5 Correct

You are building a new computer and have purchased a motherboard that includes four built-in SATA connectors.

Which of the following MOST accurately lists the maximum number of SATA devices you can connect to the motherboard using the integrated ports?

- Sixteen
- Eight
- Four ✓ Correct
- Thirty-two

**Explanation**

The number of SATA devices that can be connected to a motherboard is directly determined by the number of built-in SATA connectors available, which in this case is four. Each SATA port supports a single device, such as a hard drive, solid-state drive, or optical drive. Since the motherboard in this scenario has four SATA connectors, it can accommodate up to four SATA devices simultaneously without the need for additional expansion cards or adapters. The option that eight, sixteen, or thirty-two devices can be connected is incorrect because they exceeds the number of available ports. To connect more than four devices, a SATA expansion card or port multiplier would be required, which is not mentioned in this scenario.

**Related Content**

2.1.13 Serial Advanced Technology Attachment Interface

resources\questions\q_cable_conn_sata_connect_max_num_pp7.question.xml

Question 6 ✓ Correct

You are in the process of installing a motherboard in a system case.

Which of the following objects should you place between the motherboard and the system case?

- ○ Passive heat sink
- ○ Support manual
- ○ Fans
- ○ Heat spreaders
- ◉ Standoffs ✓ Correct

**Explanation**

Standoffs go between the motherboard and the case. Standoffs prevent the motherboard circuits from touching the system case and grounding or shorting.

Heat spreaders go on memory modules to help cool them.

Fans are installed in the system case but not between the motherboard and the case.

Passive heat sinks are installed with chipsets and low-performance processors.

The support manual is a booklet that contains information about the motherboard.

**Related Content**

resources\questions\q_mb_inst_standoffs_pp7.question.xml

Question 7 ✓ Correct

Which of the following expansion slots are most commonly used for video cards in modern computer systems?

- ○ PCI
- ○ CNR
- ◉ PCIe ✓ Correct
- ○ AMR

**Explanation**

The PCIe (or PCI Express) expansion buses are most commonly used for video cards in modern computer systems.

PCI buses are most commonly used for devices such as sound cards, modems, network cards, and storage device controllers. While you can use PCI for video, better performance is obtained from PCI Express.

CNR is a legacy on-motherboard slot to support networking, wireless communication, sound, or modem functions.

AMR slots are legacy buses on some motherboards that are used by riser cards to support sound or modem functions.

**Related Content**

2.2.5 Peripheral Component Interconnect Express Interface

2.2.6 Peripheral Component Interconnect Interface

2.2.12 Video Cards

resources\questions\q_mb_inst_pci_express_common_bus_pp7.question.xml

Question 8 Correct

What should be done when disassembling a computer to ensure correct reconnection of header connectors?

- Ignore the orientation of connectors because they fit only one way.
- Match connectors based on color alone.
- Only refer to the labels on the wires.
- Document the position and orientation of connectors. ✓ Correct

**Explanation**

Documenting the position and orientation of connectors using diagrams or photos is recommended to ensure correct reassembly, as labels can sometimes be small or difficult to interpret. Simply relying on connector color or assuming they fit one way can lead to improper connections.

**Related Content**

resources\questions\q_mb_reconnect_header_connectors.question.xml

Question 9 ✓ Correct

Which of the following statements accurately describes a key difference between DVI and VGA video cables?

- VGA cables are designed for digital flat-panel displays, whereas DVI cables are used for cathode ray tube (CRT) monitors.
- Both DVI and VGA cables are actively developed and commonly found on modern display devices.
- DVI cables support both video and audio transmission, whereas VGA cables support only video.
- DVI cables can support both analog and digital signals, while VGA cables support only analog signals. ✓ Correct

**Explanation**

DVI supports both analog and digital outputs, whereas VGA is an analog-only interface. This accurately describes a key difference between the two cable types.

DVI and VGA support only video, not audio. Therefore, this statement is incorrect regarding DVI cables.

VGA was used for CRT monitors, which relied on analog signals, while DVI was designed to support both analog and digital outputs, making this statement incorrect.

DVI is no longer actively developed and is typically found on older display devices, and VGA is being phased out, making this statement incorrect.

**Related Content**

resources\questions\q_dvi_and_vga_video_cables_02.question.xml

Question 10 ✓ Correct

You are tasked with configuring a network switch in a data center. The switch has a console port that requires a serial connection for initial setup.

Which of the following steps should you take to successfully connect and configure the switch?

- Use a VGA cable to connect the console port to your laptop's HDMI port for video output.
- Use a DVI cable to connect the console port to your laptop's Ethernet port for data transmission.
- Use an RS-232 serial cable to connect the console port to your laptop's USB port. ✓ Correct
- Use a PS/2 cable to connect the console port to your laptop's keyboard port for input.

**Explanation**

RS-232 serial cables are commonly used to connect to the console ports of network equipment for device management. Since most modern laptops do not have built-in serial ports, a USB-to-serial adapter is often required to establish the connection. In addition, the vendor may provide a serial cable specifically designed to be used with the hardware.

VGA cables are used for video transmission, not for serial communication or device management. The console port on a network switch is not designed for video output.

DVI cables are designed for video output, not for serial communication. Additionally, Ethernet ports are used for network connectivity, not for connecting to console ports.

PS/2 cables are used for connecting older keyboards and mice, not for serial communication or network device management. The console port on a switch requires an RS-232 serial connection, not a PS/2 connection.

**Related Content**

2.3.3 Serial Cables

resources\questions\q_serial_cables_05.question.xml

Question 11

Correct

A technician needs to connect an external hard drive to a computer using a cable that supports both USB and SATA connections. Which of the following cable types should the technician use?

- USB
- eSATA
- eSATAp ✓ Correct
- SATA

**Explanation**

eSATAp is a nonstandard powered port that supports both USB and SATA connections when used with an eSATAp cable. This makes it versatile for connecting devices requiring either interface type. An eSATA cable only supports SATA connections and does not work with USB devices. A standard SATA cable is intended for internal connections within a computer and is incompatible with external ports. A USB cable is widely used for external connections but does not provide compatibility with SATA devices. It is limited to USB-specific connections, so it does not meet the requirement for supporting both interfaces.

**Related Content**

2.1.15 External SATA

resources\questions\q_cable_conn_hot_pluggable_connectors_pp7.question.xml

Question 12 ✓ Correct

Your company has just upgraded your laptop computer. After receiving your new computer, you plug your external USB 2.0 hard disk into your new USB 3.0 port.

Which of the following is the MOST accurate statement regarding how this device will function?

- ○ The device will require an external power source.
- ○ The device will be able to transfer at USB 3.0 speeds.
- ○ The USB 2.0 device will not work in the USB 3.0 port.
- ◉ The device will work but only transfer at USB 2.0 speeds. ✓ Correct

**Explanation**

USB 3.0 ports are backward compatible with all previous USB versions. However, these ports can only transfer as fast as the slowest version being used. This means that a USB 2.0 device connected to a USB 3.0 port will transfer data at USB 2.0 speeds.

Devices only require an external power source if they require more than 500 mA or 900 mA of power (for USB 2.0 and USB 3.0, respectively).

**Related Content**

2.1.4 Universal Serial Bus Cables

2.1.5 USB Standards

resources\questions\q_cable_conn_20_into_30_port_pp7.question.xml

Question 13

Correct

Which of the following statements is true about adapter cables?

- (selected) Adapter cables are used to convert signals from one type of interface to another. ✓ Correct
- Adapter cables are used to enhance the speed of data transmission between devices.
- Adapter cables are only used for connecting audio devices.
- Adapter cables are primarily used to connect two devices with the same type of ports.

**Explanation**

Adapter cables allow devices with different types of interfaces to communicate by converting the signals appropriately.

Adapter cables are specifically designed to connect devices with different types of ports, not the same type. They facilitate compatibility between different interfaces.

Adapter cables are versatile and can be used for various types of connections, including video, audio, and data, not just audio devices.

Adapter cables do not enhance the speed of data transmission; they merely enable connectivity between different interfaces. The speed is determined by the interfaces and cables used, not by the adapter itself.

**Related Content**

2.1.10 HDMI and DisplayPort Video Cables

2.3.4 Adapter Cables

5.3.5 Copper Cabling Connectors

resources\questions\q_adapter_cables_02.question.xml

Question 14 ✓ Correct

Which of the following motherboard form factors BEST allows for low-consumption power supplies?

- NLX
- Mini-ITX ✓ Correct
- Micro-ATX
- EATX

**Explanation**

Mini-ITX is a compact motherboard form factor specifically designed for small systems that prioritize energy efficiency and minimal power consumption. EATX motherboards are much larger than Mini-ITX and are designed for high-performance systems, such as gaming rigs and professional workstations. Micro-ATX motherboards are larger than Mini-ITX and generally support more components, which can increase power requirements compared to Mini-ITX. While Micro-ATX boards can be used in energy-efficient builds, they are not optimized for low-consumption power supplies to the same extent as Mini-ITX. NLX is an older and less common motherboard form factor designed primarily for low-profile desktop systems and does not inherently prioritize energy efficiency.

**Related Content**

2.2.3 Motherboard CPU and System Memory Connectors

2.2.7 Motherboard Form Factors

resources\questions\q_mb_mini_itx_pp7.question.xml

Question 15 Correct

Which port on a sound card should you connect a non-amplified microphone to?

- Line in
- Speaker out
- Mic in ✓ Correct
- Line out

**Explanation**

A non-amplified microphone should be connected to a sound card's mic in (microphone in) port. The line out connectors send unamplified audio signals to other sound devices. The line in connector receives signals from the line out port of other audio devices. The speaker out connector sends signals to external speakers. This signal is amplified, and the computer and the speakers can control the sound level.

**Related Content**

2.2.15 Sound Cards

resources\questions\q_mb_fact_no-amp_mic_connect_pp7.question.xml