2.1.17 Lesson Review

Date: 11/16/2025, 5:22:22 AM

Time Spent: 19:30

Score: 100%

Passing Score: 80%

Question 1

Correct

What is the primary purpose of the Thunderbolt interface?

- To connect devices over Bluetooth
- To charge smartphones wirelessly
- To enable high-speed data transfer and support multiple types of connections ✓ Correct
- To connect wireless devices to a computer

Explanation

The Thunderbolt interface is designed to provide high-speed data transfer, as well as support for various types of connections, including display, storage, and power through a single port. It combines PCI Express, DisplayPort, and power delivery in one interface.

Related Content

2.1.11 Thunderbolt Interface

resources\questions\q_cable_conn_thunderbolt_purpose.question.xml

Question 2 Correct

A company is purchasing new laptops for their graphic artist division.

Which of the following display technologies provides better contrast and deeper blacks, resulting in better picture quality?

- LCD
- DLP
- Plasma
- OLED ✓ Correct

Explanation

Organic light-emitting diode (OLED) displays don't require a backlight. While this means they do not perform as well as LCD displays in lighted areas, they have a much better contrast ratio with deeper blacks.

Liquid crystal displays (LCDs) dominate the laptop display market but require a backlight and have a lower contrast ratio.

Digital light processing (DLP) is used in projectors.

While plasma display panels have a better contrast ratio than LCD displays, the technology is unsuitable for laptop displays because of their smaller size and larger power consumption.

Related Content

2.1.8 Display Types

resources\questions\q_cable_conn_laptop_oled_sol_pp7.question.xml

Question 3 Correct

Which of the following BEST describes a key feature of the DisplayPort interface that is used for connecting video monitors to computers?

- (●) DisplayPort can send both video and audio signals over the same cable. ✓ Correct
- ( ) DisplayPort is electrically equivalent to DVI and HDMI.
- ( ) DisplayPort utilizes the same connectors as HDMI.
- ( ) DisplayPort carries both analog and digital signals.

Explanation

DisplayPort is an alternative to HDMI. Like HDMI, DisplayPort can send both video and audio signals over the same cable (if audio is supported by the video card and monitor).

DisplayPort uses a digital-only signal.

DisplayPort uses a different signal format than DVI or HDMI. However, DisplayPort supports sending DVI or HDMI signals over the same port using a simple adapter.

DisplayPort uses a different connector than HDMI. The connector is asymmetrical and has only one side beveled.

Related Content

2.1.10 HDMI and DisplayPort Video Cables

resources\questions\q_cable_conn_displayport_key_feature_pp7.question.xml

Question 4 Correct

Which of the following is the maximum data transfer speed for USB 3.2 Gen 2 devices?

- 400 Mbps
- 1.5 Mbps
- 10 Gbps ✓ Correct
- 480 Mbps
- 12 Mbps

Explanation

USB 3.2 Gen 2 specifies a maximum transmission speed of up to 10 Gbps. USB 2.0 devices have a maximum data transfer speed of 480 Mbps. USB 1.0 devices have a maximum data transfer speed of 1.5 Mbps or 12 Mbps.

Related Content

- 2.1.4 Universal Serial Bus Cables
- 2.1.5 USB Standards
- 3.2.3 Solid-State Drives

resources\questions\q_cable_conn_max_trans_speed_pp7.question.xml

Question 5 ✓ 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 is the MOST common interface for peripheral devices?

- ◉ USB ✓ Correct
- ○ PATA
- ○ Serial
- ○ FireWire

Explanation

USB is the most common interface for peripheral devices, such as printers, keyboards, and mice.

FireWire is a common interface for digital video cameras and recorders, hard drives, and network adapters.

Serial interfaces are common for modems, older printers, and networking devices.

PATA interfaces are most common for internal HDDs and CD/DVD drives.

Related Content

resources\questions\q_cable_conn_common_interface_pp7.question.xml

Question 6 Correct

Which interface is primarily used for internal hard drives in modern desktop PC systems?

- USB
- SATA ✓ Correct
- SCSI
- PATA
- Firewire

Explanation

SATA is primarily used for internal hard drives in modern desktop PC systems.

PATA (also called EIDE, IDE, and ATAPI) is a parallel ATA interface and was the most common interface used for hard disks and CD/DVD drives in the past. It is not used in modern PC systems.

USB and Firewire are interface standards for connecting various external devices, including external hard drives.

SCSI is commonly used for server storage. However, SCSI is rarely used for hard disks in modern desktop systems.

Related Content

2.1.13 Serial Advanced Technology Attachment Interface
resources\questions\q_cable_conn_sata_internal_hd_pp7.question.xml

Question 7 Correct

Susan works in the research and development department. She recently purchased a large high-speed external drive and has attached the drive to her computer using a USB cable. Her drive requires a minimum data transfer speed of 5 Gbps and needs to have access to 600 mA/15 volts of USB power to function properly.

Although the correct drivers are installed, when she plugs her drive into her workstation, the drive is not working. To troubleshoot the problem, she has connected her drive to her coworker's computer, where the drive functions properly. No additional cables are required for this drive.

Which of the following is the MOST likely reason that Susan's external hard drive is not working?

- Susan has connected her drive to a USB 3.2 port, but the drive is only made to work with a 2.0 port.
- Susan has connected her drive to a USB 2.0 port, which does not have the required data transfer speed. ✓ Correct
- Susan has connected her drive to a USB 3.2 port, which does not support the minimum data transfer speed required.
- Susan has connected her drive using a Type-C cable, which does not have enough power for her drive.

Explanation

Susan has connected her drive to a USB 2.0 port on her computer, which only supports up to 480 Mbps data transfer speeds. However, her external hard drive requires a minimum of 5 Gbps, which is provided by a 3.2 USB port.

Because the external hard drive requires 5 Gbps and 600 mA of USB power, the drive is most likely designed to be used with a 3.2 USB port.

A USB Type-C cable provides up to 20 volts of power, which meets the external hard drive requirements.

Related Content

2.1.4 Universal Serial Bus Cables

2.1.5 USB Standards

resources\questions\q_cable_conn_trbl_shoot_usb_2_port_pp7.question.xml

Question 8 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 9 Correct

A user reports that he is unable to access data on an external hard drive. You investigate the problem and determine that the USB cable connection to the hard drive is damaged. You replace the cable.

Which of the following actions should you take next?

- Create an action plan.
- Test the solution. ✓ Correct
- Document the problem and solution.
- Determine if escalation is necessary.

Explanation

After implementing a solution, test it to verify full system functionality and ensure it has fully fixed the problem and hasn't caused any additional issues.

You document the problem and solution after everything has been fixed and verified.

You determine if escalation is needed and create an action plan before implementing the solution.

Related Content

2.1.4 Universal Serial Bus Cables

2.1.5 USB Standards

resources\questions\q_cable_conn_damaged_cable.question.xml

Question 10 Correct

What is the maximum data transfer speed supported by USB 2.0?

- 10 Gbps
- 12 Mbps
- 5 Gbps
- 480 Mbps ✓ Correct

Explanation

USB 2.0, also known as Hi-Speed USB, supports a maximum data transfer speed of 480 Mbps (megabits per second). This was a significant improvement over the earlier USB 1.1 standard, which only supported speeds up to 12 Mbps. USB 2.0 is widely used for connecting peripherals such as keyboards, mice, printers, and external storage devices. While it is slower compared to newer standards like USB 3.0 and USB 3.1, USB 2.0 remains backward compatible with older USB devices and is still commonly found in many devices today.

Related Content

2.1.4 Universal Serial Bus Cables

2.1.5 USB Standards

resources\questions\q_usb_20_into_30_port_pp7.question.xml

Question 11 Correct

A marketing manager needs to connect a laptop to a large wall-mounted LED TV in an auditorium to make a presentation that includes high-resolution video and audio.

Which of the following cable types would work BEST for connecting the laptop to the display?

- (●) HDMI ✓ Correct
- ( ) VGA
- ( ) S/PDIF
- ( ) DVI

Explanation

HDMI is the default cable standard for newer electronic devices, such as Blu-ray players and LED TVs. HDMI can carry both digital video and audio signals. Most modern computers include an HDMI port.

DVI and VGA only support video signals.

S/PDIF cables and ports are used to send a digital audio signal to high-end audio devices. It does not support video signals.

Related Content

- 2.1.1 Personal Computers
- 2.1.3 Peripheral Devices
- 2.1.10 HDMI and DisplayPort Video Cables
- 2.2.12 Video Cards

resources\questions\q_cable_conn_hdmi_led_tv_pp7.question.xml

Question 12

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 13 Correct

Which of the following components is most likely to use a Molex power connector?

- (●) Case fan or older hard disk drive (HDD) ✓ Correct
- ( ) SATA SSD
- ( ) Monitor
- ( ) USB external hard drive

Explanation

Molex power connectors are commonly used to provide power case fans for older hard disk drive (HDD). Molex connectors are 4-pin power connectors traditionally found in older computer systems. They are often used to power devices such as case fans, optical drives, and older hard disk drives. They provide a reliable power connection but lack the more modern features found in newer power connectors.

A SATA SSD does not use a Molex connector. Instead, it relies on a SATA power connector, which is specifically designed for SATA-based drives and offers a more compact and streamlined design compared to Molex.

A monitor is powered externally through its own dedicated power cable and does not connect directly to the computer's internal power supply.

A USB external hard drive is powered through its USB connection or via an external power adapter.

Related Content

2.1.14 Molex Power Connectors
resources\questions\q_cable_conn_molex_devices.question.xml

Question 14 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 15 ✓ Correct

You are installing a new SATA hard drive in your Windows workstation.

Which of the following connectors should you use to connect your hard drive to the motherboard?

- ○ 50-pin connector
- ○ 40-pin connector
- ○ 80-pin connector
- ◉ 7-pin connector ✓ Correct

Explanation

You use a 7-pin connector to connect a SATA hard drive to the motherboard.

IDE hard drives use a 40-pin connector.

SCSI and SPI-SCSI parallel interfaces use 50-, 68-, or 80-pin connectors.

Related Content

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