Lab Report: 4.5.10 Install a VGA Monitor

Your Performance
Your Score: 5 of 5 (100%) Pass Status: Pass
Elapsed Time: 6 minutes 40 seconds Required Score: 100%

Task Summary
Move the LCD monitor to the Workspace
Connect the DVI-A to VGA adapter to the computer
Connect the VGA cable to the monitor and the computer
Plug in the monitor
Configure a resolution of 1600x1200
Explanation

To complete this lab:

- Move the LCD monitor to the Workspace. The LCD monitor is flat compared to the CRT monitor which has a long back.
- Connect the DVI-A to VGA adapter to a DVI-I port on the video card.
- Connect the VGA cable to the adapter and the monitor.
- Add a power cord to the monitor and plug the monitor in.
- In Windows, configure a resolution of 1600x1200.

Complete the following steps:

1. In the Workspace area, switch to the back view of the computer.
2. On the Shelf, expand the **Monitors** category.
3. Based on its picture, drag the required monitor to the Workspace.
4. Switch to the back view of the monitor. Compare the video ports on the computer to the port on the monitor.
5. On the Shelf, expand the **Adapters** category.
6. Click the **Details** link for each adapter and look at each view to find the DVI-D to VGA adapter.
7. Select the required adapter and drag it to a port on the computer.
8. On the Shelf, expand the **Cables** category. Select each cable and view the connectors in the Selected Component window to find the correct cable.
9. In the Selected Component window, drag a connector to the port on the back of the monitor.
10. In the Selected Component window, drag the unconnected cable end to the adapter connected to the back of the computer.
11. On the Shelf, select the power cable.
12. In the Selected Component window, drag the female end of the power cable to the power port on the back of the monitor.
13. In the Selected Component window, drag the other end of the power cord to the wall plate or power strip.
14. Switch to the front view of the monitor. Click the power button on the monitor.
15. Switch to the front view of the computer. Click the power button on the computer. You are switched to the operating system view of the computer.
16. To configure the resolution, right-click on the desktop and choose **Screen Resolution**.
17. Select the desired screen resolution. Click **OK**.

Date: 10/1/2015 10:53:50 am
Time Spent: 2:13

Candidate: Vasquez Fernandez, Sergio
Login: svasquez

Overall Performance

Your Score: 100%

Passing Score: 80%

Certification Ranking

Within your class: Within your school: Nationally:

Objective Analysis

1.0 PC Hardware

1.5 Install and configure storage devices and use appropriate media.	100%	1 of 1
1.7 Compare and contrast various connection interfaces and explain their purpose.	100%	4 of 4

Individual Responses

Question 1: Correct

Which of the following is the correct order for the installation of a new USB device and the driver files that shipped with it?

- Attach the device. Complete the Add a Device wizard when it pops up to install the device driver.
- Install the device driver using the manufacturer's installation instructions. Attach the device. Complete the Add a Device wizard when it pops up.
- Attach the device. Cancel the Add a Device wizard when it pops up. Install the device driver using the manufacturer's installation instructions.
- Connect the device. No driver installation is required for USB devices.

Explanation

To ensure that all features of your new USB devices are supported, it is best to install the driver that shipped with your device. Because Windows will attempt to match a driver from its built-in library when the device is initially attached to the computer, it is important to install the manufacturer's driver before attaching the device.
[ap12_801_1-7.exm APESS_4-7 MULTIPLE CHOICE [58]]

Question 2: Correct

What is the advantage of hot-swapping for storage devices?

- The operating system automatically detects hot-swappable storage devices, configures drivers, and enables the devices.
- Users do not make configuration changes or interact with the operating system before unplugging hot swappable devices.

- Users do not defragment hot swappable IDE drives because they have large storage capacities.
- Users create custom BIOS configurations to enable the interface used by the hot swappable device.

Explanation

When you connect a hot swappable device, Windows automatically detects the device, configures a driver (if one is not already installed), and enables the device. The BIOS must be configured to enable the interface by non-hot-swappable storage devices. IDE drives are not hot swappable. To remove a hot swappable component, use the Safely Remove Hardware feature to shut down the device before unplugging it from the system.
[ap12_801_1-5.exm APESS_4-7 #9]

Question 3: Correct

You need to connect a new USB scanner to the USB port on your computer. What should you do?

- Connect the scanner to the USB port.
- Connect the scanner to the USB port, then install the drivers.
- ➡ Install the scanner drivers, then connect the scanner to the USB port.
- Connect the scanner to the USB port. When prompted, do not install a driver.

Explanation

To install USB devices, start by installing the driver. Then connect the device to the USB port. The operating system will detect the device and configure it automatically. The driver is used to tell the operating system how to communicate with the device.
[ap12_801_1-7.exm APESS_4-7 MULTIPLE CHOICE [253]]

Question 4: Correct

You have installed a new device in your system, and have run the Add a Device Control Panel applet. Under what circumstance would it be appropriate to continue with the wizard if the device was not discovered?

- The device driver was installed before the device was installed.
- The device does not require a driver.
- ➡ The device does not support Plug-and-Play.
- The device connects to the USB bus.

Explanation

If the non-Plug-and-Play device is not detected, you need to select the driver files manually by continuing the wizard. All devices require a driver. USB devices are Plug-and-Play. To install a USB device, install the driver, then connect the device. The device will be automatically detected and configured.
[ap12_801_1-7.exm APESS_4-7 MULTIPLE CHOICE [66]]

Question 5: Correct

Your company uses Windows as a desktop operating system. You need to install a new Plug-and-Play print device on a user's computer. The printer uses a parallel port interface. You connect the print device to the computer's parallel port and turn the print device on. You want to use the drivers provided by the manufacturer rather than those that ship with Windows. What should you do?

- ○ Run the Add a Device wizard and scan for the Plug-and-Play print device.
- ➡ ◉ Run the setup program provided by the print device's manufacturer.
- ○ Use the File Signature Verification utility to sign the manufacturer's drivers.
- ○ Enable Enhanced Parallel Port (EPP) support in the system BIOS.
- ○ Update the print device's drivers using Device Manager.

Explanation

If the manufacturer has supplied a driver, you can run the manufacturer's setup program to install it. If you scan for Plug-and-Play hardware, the driver that ships with Windows will be installed. Although you can then update the driver, that is an extra step. When a Plug-and-Play-compliant device is attached to a parallel port, the system's BIOS must be configured to use Enhanced Parallel Port (EPP) mode, or the Plug-and-Play manager will not be able to detect and configure it. EPP mode allows bidirectional communication between a device and the computer. However, in this case you will not be using Plug-and-Play, so EPP is not essential for installing the driver (although you will likely want to use EPP or the newer Enhanced Capabilities Port [ECP] so the printer can communicate printing status to Windows). The File Signature Verification (sigverif) utility is used to verify driver signatures, not sign them.
[ap12_801_1-7.exm APESS_4-7 MULTIPLE CHOICE [83]]

Date: 10/2/2015 12:38:00 pm
Time Spent: 0:57

Candidate: Vasquez Fernandez, Sergio
Login: svasquez

Overall Performance

Your Score: 100%

Passing Score: 80%

Certification Ranking

Within your class: Within your school: Nationally:

Objective Analysis

1.5 Install and configure storage devices and use appropriate media.	100%	4 of 4

Individual Responses

Question 1: Correct

You have a motherboard with 4 built-in SATA connectors. What is the maximum number of SATA devices you can connect to the motherboard using the integrated ports?

- 16
- 4
- 8
- 64
- 32

Explanation

You can connect one SATA device per port. If you have 4 ports, you can connect 4 devices.
[ap12_801_1-5.exm APPA_3-3 MULTIPLE CHOICE [109]]

Question 2: Correct

Which of the following tasks would you complete as part of a SATA installation?

- Complete a low-level format of the drive.
- Use the 4-pin molex power connector.
- Configure the device ID using a jumper.
- Set the master/slave relationship using a jumper.
- Use the 15-pin power connector.

Explanation

SATA devices use a special 15-pin power connector that supplies 3.3, 5, and 12 volts. Using the 4-pin Molex connector for a SATA device requires an adapter cable. The master setting only

applies to IDE drives, and is used to determine the active controller with multiple devices on the same cable channel. Device IDs are used with SCSI devices, not SATA devices. Low-level formatting is done at the factory by the drive manufacturer.
[ap12_801_1-5.exm APPA_3-3 #1]

Question 3: Correct

You are installing the first SATA drive into a desktop computer system, but you do not have the drivers for the motherboard's integrated SATA controller. Which of the following tasks will be required in the configuration process?

- (●) Set the drive type in the BIOS to IDE.
- ( ) Configure master/slave relationships with a jumper.
- ( ) Use an 80-conductor PATA cable to connect the drive.
- ( ) Connect the drive to the middle cable connector.

Explanation

An SATA drive that operates in IDE mode emulates a PATA device. The operating system does not need to have special drivers to recognize and use the disk. When setting the drive type to AHCI, you will need the drivers if you are running Windows XP (Windows Vista includes built-in drivers). Master/slave settings and 80-pin conductor cables are used on PATA devices. SATA cables have only two connectors (one on each end); PATA cables have a middle connector for connecting a second device to the same cable.
[ap12_801_1-5.exm APPA_3-3 D2]

Question 4: Correct

A manager wants you to install a Serial ATA hard drive into his computer, but the motherboard does not have a Serial ATA connector. What should you do?

- (●) Install a Serial ATA host adapter in an expansion slot.
- ( ) Use an external drive with a FireWire/USB adapter.
- ( ) Upgrade to a newer motherboard with integrated SATA connectors.
- ( ) Use an external drive with a USB/SATA adapter.

Explanation

To add a feature to a computer, add an expansion card in a free bus slot. In this case, you could add a Serial ATA host adapter in a free PCI slot.
[ap12_801_1-5.exm APPA_3-3 MULTIPLE CHOICE [23]]

Date: 9/15/2015 1:50:00 pm
Time Spent: 4:40

Candidate: Vasquez Fernandez, Sergio
Login: svasquez

Overall Performance

Your Score: 100%

Passing Score: 80%

Certification Ranking

Within your class: Within your school: Nationally:

Objective Analysis

1.12 Install and configure various peripheral devices.	100%	4 of 4

Individual Responses

Question 1: Correct

The PS/2 ports on a computer are used for which types of devices? (Select two.)

- [ ] Modem
- [x] Keyboard
- [x] Mouse
- [ ] Digital audio
- [ ] Digital video

Explanation

Keyboard and mouse are common devices that use PS/2 connections. PS/2 connectors are 6-pin mini-DIN connectors. USB ports can also be used for keyboard and mouse, as well as a wide range of other devices. RCA and Toslink are used for digital audio connections. S-video and component video use mini-din connectors, but with a different number of pins.
[ap12_801_1-12.exm APPA_2-10 D7]

Question 2: Correct

Which of the following are considered input devices? (Select two.)

- [ ] RAM
- [x] Trackball
- [ ] Monitor
- [x] Touchscreen
- [ ] Hard disk

Explanation

A trackball and a touchscreen are considered input devices. A trackball is a type of mouse and a touchscreen is a monitor that can receive input through touch. A hard disk is a magnetic storage device used to store computer data. RAM is the most common type of memory found in computers and other devices such as printers. A computer monitor is an output device that consists of the multiple components that make up a computer's display system.
[ap12_801_1-12.exm APESS_4-4 MULTIPLE CHOICE [840]]

Question 3: Correct

Which of the following devices would you add to a computer if you needed to take inventory at a retail store by scanning the UPC symbols on products?

- (selected) Bar code reader
- Scanner
- Trackball
- Touch Screen

Explanation

Installing a bar code reader will allow you to take inventory at a retail store by scanning the UPC symbols on products. A scanner is used to scan documents. A touch screen is an interactive monitor for a computer. A trackball is a type of mouse.
[ap12_801_1-12.exm APESS_4-4 MULTIPLE CHOICE [564]]

Question 4: Correct

You have three computers in your office. You would like to reduce the time it takes to move from one computer to the next, and you would like to use only one keyboard, one monitor, and one mouse for all three computers. Which device will allow this type of setup?

- USB hub
- DVI
- (selected) KVM
- Router

Explanation

A KVM (keyboard, video, mouse) switch would allow you to control all three computers with one keyboard, one monitor, and one mouse. The KVM switch has multiple input groups, with each group accepting keyboard, video, and mouse connections from a single computer. A single output group connects to the shared input/output devices. Buttons on the KVM switch or keyboard shortcut combinations allow you to toggle the input/output devices between computers. A USB hub allows multiple USB-compatible devices (up to 127) to be connected to a single USB connection, but the hub does not connect to or control multiple PCs. A router is a networking device which connects multiple networks. DVI is a standard for connectors to digital video cards.
[ap12_801_1-12.exm APESS_4-4 #4]

Lab Report: 4.2.4 Connect Devices

Your Performance
Your Score: 5 of 5 (100%) Pass Status: Pass
Elapsed Time: 13 minutes 29 seconds Required Score: 100%

Task Summary
Connect the PS/2 keyboard (purple port)
Connect the PS/2 mouse (green port)
Connect the barcode scanner (serial port)
Connect the printer (parallel port)
Connect the monitor (DVI port)
Explanation

To complete this lab:

- Connect the keyboard to the purple PS/2 port on the computer.
- Connect the mouse to the green PS/2 port on the computer.
- Connect the barcode reader to the serial port on the computer. The serial port is a D-shaped connector with 9 pins (two rows).
- Connect the printer to the computer using a parallel cable with an A end and a B end.
- Connect the monitor to the computer using the DVD-D

Complete the following steps:

1. In the Workspace , switch to the back view of the computer, printer, and monitor.
2. On the Shelf, expand the **Input Devices** category. Select the keyboard.
3. In the Selected Component window, drag the PS/2 connector to the purple PS/2 port on the computer.
4. On the Shelf, select the mouse.
5. In the Selected Component window, drag the PS/2 connector to the green PS/2 port on the computer.
6. On the Shelf, select the barcode reader.
7. In the Selected Component window, drag the serial connector to one of the serial ports on the computer (this computer has two serial ports).
8. To connect the printer, examine the connector on the back of the printer.
9. On the Shelf, expand the **Cables** category.
10. Select each cable on the Shelf. For each cable, examine the connector ends in the Selected Component window. If necessary, click the **Details** link for the connectors to see different views of each connector.
11. Select the appropriate cable for the printer.
12. In the Selected Component window, drag the appropriate connector to the port on the printer.
13. In the Selected Component window, select the unconnected connector. Drag that connector to the parallel port on the computer.
14. On the Shelf, select the appropriate cable for the monitor.
15. In the Selected Component window, drag the appropriate connector to the DVI port on the monitor.
16. In the Selected Component window, select the unconnected connector. Drag that connector to the DVI port on the computer.

Date: 9/15/2015 2:38:03 pm
Time Spent: 13:43

Candidate: Vasquez Fernandez, Sergio
Login: svasquez

Overall Performance

Your Score: 100%

Passing Score: 80%

Certification Ranking

Within your class: Within your school: Nationally:

Objective Analysis

1.7 Compare and contrast various connection interfaces and explain their purpose.		100%	7 of 7

Individual Responses

Question 1: Correct

Which of the following standards provides for data transfer rates up to 480 Mbps with a maximum cable length of 5 meters?

- IEEE 1394
- IEEE 1284
- USB 2.0
- RS-232

Explanation

USB 2.0 specifications allow for data transfer rates of 480 Mbps and cable lengths up to 5 meters. IEEE 1394 (also known as Firewire) provides for data transfers of up to 400 Mbps and a cable length of 4.5 meters. IEEE 1284 (parallel) has a data transfer maximum of 2 MBps with a maximum cable length of 10 meters. RS-232 (serial) operates at relatively slow speeds but over longer distances.

[ap12_801_1-7.exm APESS_4-2 MULTIPLE CHOICE [189]]

Question 2: Correct

Which of the following devices typically has both Type A and Type B USB ports?

- USB-compatible printer
- USB-compatible computer
- USB-compatible hub
- USB-compatible storage device

Explanation

A USB hub typically has both Type A and B USB ports. The hub's Type B port is used to connect the hub to the host computer. The hub's Type A ports are used to connect the hub to other

devices. Most devices have only Type A or Type B ports. If the device has both types of port, it usually has a built-in USB hub.
[ap12_801_1-7.exm APESS_4-2 MCS98 [149]]

Question 3: Correct

What is the most common interface for peripheral devices?

- Firewire
- PATA
- Serial
- ➡ USB

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.
[ap12_801_1-7.exm APESS_4-2 #1]

Question 4: Correct

What is the maximum data transfer speed for USB 3.0 devices?

- 12 Mbps
- 400 Mbps
- 480 Mbps
- ➡ 5 Gbps
- 1.5 Mbps

Explanation

USB 3.0 specifies a maximum transmission speed of up to 5 Gbit/s. 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.
[ap12_801_1-7.exm APESS_4-2 MULTIPLE CHOICE [537]]

Question 5: Correct

You have just built a new computer running Windows. The motherboard has several built-in USB ports. You connect a device to one of these ports, but the device runs in USB 1.1 mode instead of 2.0 mode. What should you do?

- Edit the USB hub settings in Device Manager.
- ➡ Edit the CMOS settings to configure the USB ports to use USB 2.0.
- Install the USB 2.0 driver for the USB hub.
- In Device Manager, scan for hardware changes.

Explanation

Edit the BIOS settings to disable onboard USB ports or configure the USB mode for either version 1.1 or 2.0.

[ap12_801_1-7.exm APPA_2-10 D1]

Question 6: Correct

You have connected a USB hub to your computer. Connected to the hub is a scanner, a USB thumb-drive, and an external hard drive. How many IRQs are needed for the USB devices?

- (selected) 1
- 4
- 2
- 3

Explanation

Only one IRQ is needed. All USB devices share system resources.

[ap12_801_1-7.exm APPA_2-10 MULTIPLE CHOICE [915]]

Question 7: Correct

You are trying to connect a new USB device to your computer. You install the driver, then connect the device to an open USB port. The device does not work.

What should you do first?

- Install a new USB controller card.
- (selected) Make sure the USB device is plugged in properly.
- Replace the USB device.
- Try a different USB cable.

Explanation

The first thing to check would be if the USB device is plugged in properly. If that doesn't correct the problem, you might try a different USB cable before doing more extensive troubleshooting. You should only replace the device or install a new USB controller card after verifying where the problem lies. For example, if you try the device on another computer and it still doesn't work, you might assume that the device is defective. If the device works on a different computer, then the USB ports on the first computer might be defective.

[ap12_801_1-7.exm APPA_2-10 MULTIPLE CHOICE [285]]

Date: 9/17/2015 1:14:12 pm
Time Spent: 2:05

Candidate: Vasquez Fernandez, Sergio
Login: svasquez

Overall Performance

Your Score: 100%

Passing Score: 80%

Certification Ranking

Within your class: Within your school: Nationally:

Objective Analysis

1.7 Compare and contrast various connection interfaces and explain their purpose.	100%	4 of 4

Individual Responses

Question 1: Correct

Which of the following standards provides for data transfer rates up to 800 Mbps with a maximum cable length of 100 meters?

- IEEE 1394a
- USB 2.0
- RS-232
- IEEE 1394b
- IEEE 1284

Explanation

IEEE 1394b (also known as Firewire 800) provides for data transfers of up to 800 Mbps and a cable length of 100 meters. IEEE 1394a (also known as Firewire 400) provides for data transfers of up to 400 Mbps and a cable length of 4.5 meters. USB 2.0 specifications allow for data transfer rates of 480 Mbps and cable lengths up to 5 meters. IEEE 1284 (parallel) has a data transfer maximum of 2 MBps with a maximum cable length of 10 meters. RS-232 (serial) operates at relatively slow speeds but over longer distances.

[ap12_801_1-7.exm APESS_4-3 MULTIPLE CHOICE [181]]

Question 2: Correct

How many devices does a single IEEE 1394 bus support?

- 127
- 8
- 63
- 256

Explanation

An IEEE 1394 bus can have up to 63 devices. The USB bus supports up to 127 devices. Older SCSI buses support 7 devices (or 8 including the host adapter).
[ap12_801_1-7.exm APESS_4-3 MCS1 [197]]

Question 3: Correct

What is the maximum data transfer rate of an IEEE 1394a device?

- 800 Mbps
- 400 Mbps
- 100 Mbps
- 1600 Mbps
- 200 Mbps

Explanation

The maximum transfer rate of an IEEE 1394 device is 400 Mbps.
[ap12_801_1-7.exm APESS_4-3 MULTIPLE CHOICE [555]]

Question 4: Correct

What is the maximum cable length for the IEEE 1394a standard?

- 5 meters
- 4.5 meters
- 3 meters
- 100 meters

Explanation

The maximum cable length for the IEEE 1394a standard is 4.5 meters. The maximum cable length for the IEEE 1394b standard is 100 meters.
[ap12_801_1-7.exm APESS_4-3 MCS4 [213]]

Date: 9/22/2015 1:44:18 pm
Time Spent: 37:42

Candidate: Vasquez Fernandez, Sergio
Login: svasquez

Overall Performance

Your Score: 100%

Passing Score: 80%

Certification Ranking

Within your class: Within your school: Nationally:

Objective Analysis

1.5 Install and configure storage devices and use appropriate media.	100%	12 of 12

Individual Responses

Question 1: Correct

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

- PATA
- SATA
- Firewire
- USB
- SCSI

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, but not 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, but is rarely used for hard disks in modern desktop systems.
[ap12_801_1-5.exm APESS_5-1 #2B]

Question 2: Correct

Which of the following Windows utilities would you use to realign the file structure on the disk to optimize performance?

- defrag
- Disk Management
- chkdsk
- fdisk

Explanation

Use the defrag command to place files in contiguous order on the disk and thus realign the file structure to optimize performance. Use chkdsk to search the system for lost allocation units and corrupted files. The fdisk utility can be used on older versions of Windows to create, and delete partitions. You can use Disk Management to access the properties of a volume and then run the Defragmentation graphical utility from there.

[ap12_802_1-4.exm APESS_5-6 MULTIPLE CHOICE [31]]

Question 3: Correct

Which storage device types use magnetic film or aluminum platters for storing data? (Select two.)

- [ ] DLT tape
- [ ] SD card
- [ ] DVD disc
- [x] Hard disk
- [x] Floppy disk
- [ ] CD-ROM disc

Explanation

Floppy disks and hard disks use magnetic film, disks, and platters. Optical drives such as DVD or CD-ROM drives, use a reflective surface that is read by an optical reader. Flash devices such as SD cards store information using programmable, non-volatile flash memory. DLT drives use magnetic tape.

[ap12_801_1-5.exm APESS_5-1 MULTIPLE CHOICE [749]]

Question 4: Correct

You need a storage device that has very large storage capacity, is fast, and is relatively inexpensive. Which storage device will best suit your needs?

- ( ) Floppy
- ( ) SSD
- (•) Hard disk
- ( ) Optical

Explanation

A hard disk has a large memory capacity, is fast, and is relatively inexpensive. Optical disks are also inexpensive, but are not as fast and do not provide the storage capacity of hard disks. Floppy disks are inexpensive, but they are very slow, obsolete, and have low storage capacity. Solid State Drives (SSD) have a large memory capacity and are fast, but are much more expensive than comparable hard drives.

[ap12_801_1-5.exm APESS_5-1 MULTIPLE CHOICE [857]]

Question 5: Correct

Which of the following media types is not hot swappable?

- [x] DVD drive with an IDE interface
- [ ] External HDD with an eSATA interface
- [ ] Flash device with a USB interface
- [ ] External HDD with a USB interface

Explanation

A regular IDE interface does not support hot swapping. USB, SATA, and eSATA all support hot swapping. Hot swappable media can be added and removed without shutting down the computer. Hot swapping must be supported by the BIOS, the bus type or controller, the device, and the driver/operating system.
[ap12_801_1-5.exm APESS_5-1 #6]

Question 6: Correct

Which of the following is the most common disk interface used for optical drives on home and office computers?

- [ ] SCSI
- [ ] Parallel port
- [x] SATA
- [ ] Sound card (proprietary)
- [ ] IDE/EIDE (ATAPI)

Explanation

Most modern computer systems use SATA optical drives. At one time, IDE/EIDE (ATAPI) optical drives were the most common type of optical drives implemented, but this has changed. SCSI was also used at one time, but has fallen out of favor for optical drives. In the early 1990's some sound cards provided a proprietary internal connector for early CD-ROM drives, but these are now obsolete. Likewise, parallel ports were used in the early 1990's for optical drives, but these are also now obsolete.
[ap12_801_1-5.exm APESS_5-1 MCS53 [7]]

Question 7: Correct

Which of the following is not an advantage of SSDs over HDDs?

- [ ] Durable
- [x] Inexpensive
- [ ] Small and light
- [ ] Low power consumption

Explanation

Solid State Drives (SSDs) are several times more expensive than comparable hard disk drives (HDDs). Some advantages of SSDs over HDDs include the following:

- They are faster

• They have no moving parts so they last longer
• They have lower power consumption
• They are less susceptible to physical damage (from dropping) and immune from magnetic fields
• They are smaller and lighter

[ap12_801_1-5.exm APESS09_1-1 #3]

Question 8: Correct

Which of the following is typically used for large data backups of servers?

- ○ DVD-R
- ○ CD-R
- ➡ ◉ DLT tape
- ○ RAID

Explanation

DLT tape systems are used primarily for backups. The large storage capacity of these systems makes them ideal for server backups. CD-R and DVD-R do not provide sufficient storage capacity for server backups. RAID is a data protection method that preserves data on hard disks if one disk in a set fails. It is not considered a backup mechanism.

[ap12_801_1-5.exm APESS_5-1 MULTIPLE CHOICE [788]]

Question 9: Correct

Which of the following is an advantage of SATA over PATA?

- ○ Multiple devices per channel.
- ○ Backwards compatibility with older storage technologies.
- ○ Smaller storage disk size.
- ➡ ◉ Faster data transfer speeds.

Explanation

Faster data transfer speed is an advantage of SATA over PATA. Backwards compatibility with older storage technologies and multiple devices per channel are characteristics of PATA (PATA is compatible with older IDE devices).

[ap12_801_1-5.exm APESS_5-1 MULTIPLE CHOICE [715]]

Question 10: Correct

What method does an MMC card use for storing data?

- ○ Magnetic tape
- ➡ ◉ Reprogrammable memory
- ○ Reflective surface and optical readers
- ○ Magnetic disks and platters

Explanation

Flash devices store information using programmable, non-volatile flash memory. Common flash devices are MMC, SD, memory sticks, and USB thumb drives. DLT drives use magnetic tape. Hard disks and floppy disks use magnetic disks and platters. Optical drives use a reflective surface and optical readers.
[ap12_801_1-5.exm APESS_1-1 MULTIPLE CHOICE [707]]

Question 11: Correct

Which of the following are magnetic storage devices? (Select three.)

- [ ] Flash device
- [x] Floppy disk
- [ ] Solid state drive
- [x] Hard disk
- [ ] DVD
- [x] Tape drive

Explanation

The following are magnetic storage devices:

- A floppy disk is a single, flexible magnetic disk that is a little thicker than paper.
- A hard disk is a thick magnetic disk encased in a thicker protective shell.
- A tape drive (also called a digital linear tape or DLT drive) stores data on magnetic tapes, similar to audio cassette tapes.

Optical discs such as CDs and DVDs use lasers for both reading and writing information. Flash devices store information using programmable, non-volatile flash memory. Solid state drives are flash devices with a storage capacity similar to a small hard drive.
[ap12_801_1-5.exm APESS_5-1 #2A]

Question 12: Correct

What method does an SDHC card use for storing data?

- (•) Reprogrammable memory
- ( ) Magnetic tape
- ( ) Reflective surface and optical readers
- ( ) Magnetic disks and platters

Explanation

Flash devices store information using programmable, non-volatile flash memory. Common flash devices are MMC, SD, SDHC, and XD memory cards as well as USB thumb drives. DLT drives use magnetic tape. Hard disks and floppy disks use magnetic disks and platters. Optical drives use a reflective surface and optical readers.
[ap12_801_1-5.exm APESS_5-1 MULTIPLE CHOICE [707]]

Question 13: Correct

Which of the following are advantages of solid state storage compared to hard drives? (Select

two.)

- [x] Lower power requirements
- [ ] Proprietary disk interface
- [x] No moving parts
- [ ] Larger storage capacity
- [ ] Inexpensive

Explanation

Solid state drives have the following advantages when compared to hard disk drives:

- They have lower power consumption
- They have no moving parts (and hence less prone to failure)
- They are faster
- They are less susceptible to physical damage (from dropping)
- They are smaller and lighter
- They use standard SATA disk interfaces

The storage capacity for SSDs is small in comparison to HDDs. SSDs are several times more expensive than comparable HDDs.
[ap12_801_1-5.exm APESS_5-1 #4]

Date: 9/22/2015 2:26:18 pm
Time Spent: 10:58

Candidate: Vasquez Fernandez, Sergio
Login: svasquez

Overall Performance

Your Score: 100%

Passing Score: 80%

Certification Ranking

Within your class: Within your school: Nationally:

Objective Analysis

1.5 Install and configure storage devices and use appropriate media.	100%	4 of 4

Individual Responses

Question 1: Correct

What kind of power connector does a floppy drive use?

- ATX power connector
- AT power connector
- Molex power connector
- Mini-molex power connector

Explanation

A floppy drive uses a Mini-Molex power connector. Most internal hard disk drives and optical drives use Molex power connectors.
[ap12_801_1-5.exm APPA_3-1 MCS94 [72]]

Question 2: Correct

You are installing a floppy drive. You want the floppy drive to be the A: drive. How do you do this?

- Install the drive after the twist in the ribbon cable.
- Edit the operating system settings.
- Edit the CMOS settings.
- Install the drive before the twist in the ribbon cable.

Explanation

Except for a few exceptions on some systems, the drive installed after the twist in the ribbon cable will be the A: drive. The drive installed before the twist will be the B: drive.
[ap12_801_1-5.exm APPA_3-1 MCS82 [64]]

Question 3: Correct

You just installed a new floppy disk drive. After booting the computer, the drive light stays lit. What is the most likely problem?

- ( ) You used the wrong power cord to connect the drive.
- ( ) You forgot to load the software driver for the floppy disk drive.
- ( ) You installed the drive before the twist in the ribbon cable.
- ( ) The floppy disk drive is defective.
- (•) The ribbon cable is connected backwards.

Explanation

This problem is typical of installing the floppy drive ribbon cable backwards. If the drive LED stays lit continually, verify that the cable is plugged in with pin 1 in slot 1. While the drive itself might be defective, you should check the cable orientation first before concluding that the device is defective. Drivers for floppy drives are included automatically. Putting the floppy drive before the twist identifies the drive as drive B:.
[ap12_801_1-5.exm APPA_3-1 8]

Question 4: Correct

A user has called to complain that he can't save a file to a floppy diskette in his floppy drive. What should you do first? (Select two.)

- [x] Make sure the write-protection tab on the diskette isn't set.
- [ ] Replace the floppy diskette drive with a known-good unit.
- [ ] Run the CMOS Setup program and verify that the correct type of floppy drive has been configured.
- [x] Verify that the diskette has been inserted and properly formatted.
- [ ] Verify that the latest BIOS updates have been installed.

Explanation

You should first verify that the user inserted the diskette completely into the drive, that the disk has been properly formatted, and that the write-protection tab is not set. When troubleshooting any computer problem, you should always check the obvious first. These types of errors will account for a large portion of the issues you will encounter.
[ap12_801_1-5.exm APPA_3-1 MULTIPLE CHOICE [373]]

Date: 9/22/2015 2:41:31 pm
Time Spent: 10:50

Candidate: Vasquez Fernandez, Sergio
Login: svasquez

Overall Performance

Your Score: 88%

Passing Score: 80%

Certification Ranking

Within your class: Within your school: Nationally:

Objective Analysis

1.5 Install and configure storage devices and use appropriate media.	87%	7 of 8

Individual Responses

Question 1: Correct

A computer has a hard disk drive and a DVD drive installed on the primary IDE channel. You decide to move the DVD drive to the secondary IDE channel. The secondary IDE interface will have no other devices. What setting should you configure on the DVD drive?

- Any of the above
- ➡ Master or Single
- Master or Slave
- Slave

Explanation

Because the DVD drive will be the only drive on the secondary IDE interface, you must set it to Master or Single. The specific setting will depend on the drive's manufacturer.
[ap12_801_1-5.exm APPA_3-2 MCS31 [121]]

Question 2: Incorrect

Which statement is true regarding IDE master and slave settings?

- ~~If two IDE devices share the same channel, both devices must be set to slave.~~
- ➡ If two IDE devices share the same channel, one device must be set to master and the other must be set to slave.
- If two IDE devices share the same channel, both devices must be set to master.
- If two IDE devices share the same channel, one device must be set to single and the other must be set to slave.

Explanation

If two IDE devices share the same channel, one device must be set to master and the other must be set to slave.

[ap12_801_1-5.exm APPA_3-2 MCS23 [105]]

Question 3: Correct

You have connected a single drive to the primary IDE interface and a single drive to the secondary IDE interface. How should the drives be configured?

- (selected) Both drives should be set to Master or Single Drive only.
- The drive on the primary IDE interface should be set to Master. The drive on the secondary IDE interface should be set to Slave.
- Both drives should be set to Slave.
- The drive on the primary IDE interface should be set to Slave. The drive on the secondary IDE interface should be set to Master.

Explanation

Any time there is a single drive on an IDE interface, it should be set to Master or Single Drive only (as indicated in the drive's documentation).
[ap12_801_1-5.exm APPA_3-2 MCS43 [137]]

Question 4: Correct

You have a computer system with two IDE channels built into the motherboard. You add a PCI expansion card that provides an additional four IDE channels. What is the maximum number of IDE devices that can be attached to the system?

- 8
- 4
- 24
- 6
- 36
- (selected) 12

Explanation

The system can have a maximum of 12 IDE devices. Each IDE channel supports up to two devices.
[ap12_801_1-5.exm APPA_3-2 MULTIPLE CHOICE [24]]

Question 5: Correct

Which ribbon cable is used by an ATA/133 hard drive?

- (selected) 40-pin / 80-wire
- 34-pin / 34-wire
- 80-pin / 40-wire
- 40-pin / 40-wire

Explanation

An ATA/133 hard drive requires a 40-pin / 80-wire ribbon cable. Older EIDE devices used a 40-wire cable with a 40-pin connector. Floppy drive data and control ribbon cables have 34 pins.
[ap12_801_1-5.exm APPA_3-2 MCS58 [161]]

Question 6: Correct

You have just finished upgrading the power supply in your desktop computer. Now the hard disk will not work. What should you do first?

- ○ Use the switch on the power supply to switch from 110 to 220 volts.
- ➡ ◉ Make sure the power connectors on the hard disk are plugged in all of the way.
- ○ Replace the power supply.
- ○ Edit the BIOS to recognize the hard disk.
- ○ Configure the jumpers on the hard disk.

Explanation

Because you have just made a system change, you should check items related to the change you have made. In this case, check to make sure that power connectors are plugged in.
[ap12_801_1-5.exm APPA_3-2 MULTIPLE CHOICE [418]]

Question 7: Correct

How many PATA devices can be installed on a typical modern ATX motherboard?

- ○ 8
- ○ 4
- ➡ ◉ 2
- ○ 1
- ○ 16

Explanation

Most modern ATX motherboards have one ATA (IDE) channel. Earlier ATX motherboards used to have two channels implemented, but modern ATX motherboards only have one (if any) IDE channels implemented. Each channel can support up to two devices, giving you support for up to 2 PATA devices on a common ATX motherboard.
[ap12_801_1-5.exm APPA_3-2 MULTIPLE CHOICE [118]]

Question 8: Correct

Two IDE devices share the same channel. One device is newer and faster than the other. Which device should you set to master?

- ➡ ◉ Set the newer, faster device to master.
- ○ Set the older, slower device to master.
- ○ Neither device should be set to master.

- ◯ It doesn't matter. The drives will perform the same regardless of the setting.

Explanation

Set the newer, faster device to master. Set the older, slower device to slave. The controller for the newer, faster device will then control the older, slower device. Such an arrangement will be faster than using the older, slower device as the master.

[ap12_801_1-5.exm APPA_3-2 MCS24 [113]]