Exam Report: B.5 Domain 4: Hardware and Network Troubleshooting, All Questions

Date: 6/21/2017 5:56:51 pm Candidate: Stangl, Thomas (Email: tstangl@calarttech.edu)
Time Spent: 50:20

Overall Performance

Your Score: 67%

View results by: ○ Objective Analysis ◉ Individual Responses

Individual Responses

Question 1: Correct

A user reports that they are unable to access their Firewire drive after moving the PC from beneath the desk to the top of the desk. What is the most likely cause of this problem?

- ○ Incorrect FireWire driver
- ○ IRQ conflict
- ➡ ◉ Card is not properly seated
- ○ An external power source must be added

Explanation

In moving the computer, it is likely that the card became jostled and is no longer properly seated in the expansion slots. None of the other options would have been affected in just moving the computer. FireWire does not use IRQs for configuration. Simply moving the computer such a short distance would not require adding an external power supply if it wasn't needed before. Moving the computer does not change drivers used for devices.

References

LabSim for PC Pro, Section 3.11.
[pcpro2016_all_questions_en.exm TRB PC_02]

Question 2: Correct

You have just finished upgrading the CPU in your desktop system. After running the system for about 10 minutes, the system locks up and automatically restarts.

Which should you do first to troubleshoot the problem? (Select two.)

- ☐ Check the power supply voltage switch.
- ☐ Replace the power supply.
- ➡ ☑ Make sure the heat sink is properly mounted and has thermal paste.
- ➡ ☑ Check the CPU fan power.
- ☐ Remove any unneeded components and run the system.

Explanation

System lockups and restarts can be caused by several problems, including the an overheated processor. Because the CPU has just been replaced, this is the most likely cause of the problem. First, you should make sure the CPU fan is running. After that, you should check if the heat sink is properly mounted and has thermal between it and the CPU.

References

LabSim for PC Pro, Section 3.14.
[pcpro2016_all_questions_en.exm PC16_COOLING_TRB_01]

Question 3: Correct

You have a system that has been overheating and shutting off.

Which of the following actions will not help to keep the system cool?

- Installing heat spreaders on the memory modules.
- Switching to a liquid-based cooling system.
- Removing the side panel from case.
- Cleaning dust and debris from inside the case.
- Mounting the hard drives further apart.

Explanation

Removing the side panel from case will not keep a system from overheating. Computer cases are designed to maximize air flow across system components by creating negative pressure inside the case. If you remove the side panel, the negative pressure system is disrupted and pockets of stagnant hot air are created. Removing the side panel also allows more dust and debris to accumulate on components.

Cleaning the inside of the computer case, installing heat spreaders on memory modules, switching to a liquid-based cooling system, and mounting the hard drives further apart are all good ways to help keep a system cool.

References

LabSim for PC Pro, Section 3.14.
[pcpro2016_all_questions_en.exm PC16_COOLING_TRB_02]

Question 4: Correct

Which of the following would most likely cause random system lockups?

- Failing network adapter
- Overheated processor
- Loose monitor cable
- Faulty mouse or keyboard

Explanation

An overheated processor is the most likely cause of random system lockups.

A loose monitor cable will only affect the display and cause the image to cut out or distort. A faulty mouse or keyboard only causes problems with user input. A failing network adapter will cause networking issues, such as Internet connection loss, but the system will still be able to run.

References

LabSim for PC Pro, Section 3.14.
[pcpro2016_all_questions_en.exm PC16_COOLING_TRB_03]

Question 5: Correct

During the POST, you receive a message stating: Keyboard not present. Press F1 to continue.

What are the most likely causes of this error message? (Select two.)

- [ ] An outdated BIOS
- [ ] Incorrect keyboard data in the CMOS
- [ ] A broken F1 key
- [x] A stuck key on the keyboard
- [x] A poor keyboard connection

Explanation

If the keyboard is not detected during the POST, the keyboard is probably not attached to the computer correctly. Check that the keyboard is securely connected to the keyboard port. While a bad keyboard will also result in this error, you should first check the keyboard connection to the computer before replacing the keyboard. This error is also commonly caused by a stuck key on the keyboard.

References

LabSim for PC Pro, Section 4.7.
[pcpro2016_all_questions_en.exm TRB KEYBOARD]

Question 6: Incorrect

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?

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

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.

References

LabSim for PC Pro, Section 4.7.
[pcpro2016_all_questions_en.exm TRB USB]

Question 7: Correct

A user complains that his USB scanner no longer works. You check Device Manager and see an icon with a black down arrow on it. What should you do?

- ( ) Remove and then reinstall the device.
- (•) Enable the device in Device Manager.
- ( ) Replace the device.
- ( )

Update the device drivers.

Explanation

An icon with a black down arrow through it in Device Manager means that the device is disabled. Simply re-enable the device. An icon with an exclamation mark identifies a device with a problem. Many times this can be fixed by updating the driver, although you might need to replace the device if it no longer works properly.

References

LabSim for PC Pro, Section 4.7.
[pcpro2016_all_questions_en.exm TRB_DEVICE_01]

Question 8: Correct

You have just installed a new device in your Windows system. After installation, you can't use the device. You check Device Manager and find an icon for the device with a yellow exclamation mark over it. What should you do?

- (•) Download the latest driver from the manufacturer's Website.
- ( ) Reinstall the device.
- ( ) Run the Add Legacy Hardware wizard and manually configure the device.
- ( ) Enable the device.
- ( ) Replace the device.

Explanation

The first thing to try would be to obtain the latest driver for the device. In this scenario, Windows detected the device, a suitable driver for it. Use the Add Legacy Hardware wizard to install legacy (non Plug and Play) devices. An icon with a black down-arrow over it indicates a disabled device. Replacing the device should only be done after performing other troubleshooting tasks.

References

LabSim for PC Pro, Section 4.7.
[pcpro2016_all_questions_en.exm TRB_DEVICE_02]

Question 9: Correct

A user installs a new graphics application on her Windows system. During the installation process, the application prompts the user to load a custom video driver that has been optimized for the application. She does so and then completes the installation.

Several days later, the user reports that her display doesn't seem to be working properly under some conditions. To fix the problem, you need to reload the old video driver.

How could you accomplish this? (Select two.)

- [x] Revert the system to a restore point prior to installing the video driver.
- [ ] Use Device Manager to disable the video driver.
- [x] Use Device Manager to roll back the video driver.
- [ ] Boot to advanced startup menu and select Last Known Good Configuration.
- [ ] Boot from the Windows installation media and select the Startup Repair option.

Explanation

To roll back to a previous driver, access Device Manager and then use the Roll Back Driver option available in the video driver's properties. You may need to boot the system into Safe Mode first if

the problem is serious enough to make the display difficult to see. Alternatively, you could also revert the system to a prior restore point that was created before the problematic driver was installed.

You should not disable the driver in this situation. The Last Known Good configuration boot option is only available on Windows 7 and earlier systems. Even if it were available, it would not work in this scenario because the system has been rebooted and the user has logged in since the change was made. Running a startup repair would not correct a problem with an erratic video driver.

References

LabSim for PC Pro, Section 4.7.
[pcpro2016_all_questions_en.exm TRB_DEVICE_03]

Question 10: Correct

You have just connected a new USB device to your Windows system. You used the installation disc that came with the device to install the drivers needed to support the device. After installation, the system frequently crashes when you try to access the new device.

What should you do?

- Run the Add Legacy Hardware wizard and manually configure the device.
- Remove and then reinstall the device.
- Download and install the latest driver from the manufacturer's Website.
- Replace the device itself.

Explanation

The first thing to try would be to download and install the latest driver for the device from the manufacturer's website.

You would use the Add Hardware wizard to configure legacy (non Plug and Play) devices. Reinstalling or replacing the device should only be done after performing other troubleshooting tasks.

References

LabSim for PC Pro, Section 4.7.
[pcpro2016_all_questions_en.exm TRB_DEVICE_04]

Question 11: Correct

You have just installed several devices at once to a computer, but now the computer fails to boot properly. What should you do?

- Swap all of the devices with those you know to be good.
- Remove all of the newly added devices and install them one at a time.
- Swap a single device with one that you know to be good.
- Change the configuration of a single device.

Explanation

When installing, you should always install one device at a time. In that way, if a problem occurs after installing the new device, you know that the new device has caused the problem. Swapping components at this point might not help as you have not yet identified the component that is most likely causing the problem.

References

LabSim for PC Pro, Section 4.7.
[pcpro2016_all_questions_en.exm TRB PC_01]

Question 12: Incorrect

You have just installed a new hardware device, upgraded the driver, and installed the custom software that came with the device. Now you can't get the device to work. What should you do first?

- ~~Try installing the device in another system.~~
- Remove and then reinstall the device.
- Run any diagnostic software that came with the device.
- Install the drivers that came on the installation CD.

Explanation

As a first step, run any diagnostic software that came with the device. Using an older driver, like one that came on the installation CD, will rarely correct a problem. In addition, you should only try this and the other solutions after performing the self-test and trying obvious fixes.

References

LabSim for PC Pro, Section 4.7.
[pcpro2016_all_questions_en.exm TRB DEVICE]

Question 13: Correct

Which system utility would you use to troubleshoot hardware devices, examine and control the resources used by specific devices, and install updated device drivers?

- Control Panel
- System Restore
- Notification Area
- Device Manager
- Network

Explanation

Use Device Manager to troubleshoot hardware devices, examine and control the resources used by specific devices, and install updated device drivers. System Restore takes periodic snapshots, called restore points, of the system configuration. Network acts as a built-in network browser showing all networks and shared folders to which the user has access. The Notification Area displays icons that represent the applications and processes that are running behind the scenes on your computer such as audio volume, security programs, and connectivity to the network. It also displays the time and date. The Control Panel contains various utilities that change how a computer looks and behaves.

References

LabSim for PC Pro, Section 4.7.
[pcpro2016_all_questions_en.exm TRB_DEVICES]

Question 14: Correct

You just replaced the motherboard in your computer. Now your computer will not start. You press the power button on the system case, but nothing happens; there are no sounds or lights.

What should you do?

- Make sure the memory is properly seated.
- Connect the processor fan to the motherboard.
- Make sure a keyboard and mouse is plugged in.
- ➡ Connect the power button to the motherboard.

Explanation

The system case power button connects to jumper pins on the motherboard. When you press the power button, the cable sends the power on signal to the computer. If the power button was connected, you would typically hear fans start up and see lights come on as the system boots. Even without a processor fan, memory, or a keyboard or mouse, you would still see or hear something if the system had power.

References

LabSim for PC Pro, Section 3.9.
[pcpro2016_all_questions_en.exm TRB MB_01]

Question 15: Correct

You have been using the same computer for several years. To extend its service life, you decide to upgrade the processor. You check the motherboard documentation and purchase the fastest processor supported by the motherboard. However, when you start the computer, it beeps regularly and nothing is displayed on the screen and it doesn't start.

What should you do first?

- Return the CPU for a new one.
- Press F8 while booting the computer.
- Upgrade the motherboard.
- ➡ Update the UEFI firmware.

Explanation

Flashing the BIOS or UEFI firmware is often required to upgrade system components that are part of the motherboard, such as upgrading to a faster processor. If the motherboard documentation lists the processor as supported but it is not correctly recognized, updating the BIOS or UEFI firmware to the latest version may fix the problem.

Pressing F8 while the system is booting displays the advanced boot menu on older versions of Windows. Replacing the motherboard is probably not required because the motherboard was working correctly previously and the documentation indicates that the new CPU is supported. You would only replace the CPU if you determined that it is faulty.

References

LabSim for PC Pro, Section 3.4.
[pcpro2016_all_questions_en.exm TRB CPU_02]

Question 16: Correct

You have just replaced the motherboard in your computer. Your computer starts, but the hard disk light does not come on while the system is booting.

What should you do?

- ➡ Connect the hard disk LED to the motherboard.
- Connect the power LED to the motherboard.

- ○ Access the UEFI setup program, and verify the hard disk has been detected.
- ○ Replace the hard disk.

Explanation

The system case hard disk LED connects to jumper pins on the motherboard. When the hard disk controller reads or writes data to a hard disk, power is sent to the hard disk LED pins on the motherboard, causing the case hard disk LED to light up. The case power button and LED also connect to the motherboard in a similar manner.

Because the system boots properly, the hard disk is being detected by the UEFI firmware and can be assumed to be functioning correctly.

References

LabSim for PC Pro, Section 3.4.
[pcpro2016_all_questions_en.exm TRB MB_02]

Question 17: Incorrect

You have been using the same computer for several years. To improve performance, you decide to upgrade the processor. You check the motherboard documentation and purchase the fastest processor supported by the motherboard. However, when you try to start the computer it beeps regularly and nothing is displayed on the screen.

What should you do? (Select two.)

- ☐ Press F8 while booting the computer.
- ➡ ☑ Flash the UEFI firmware.
- ➡ ☐ Reinstall the old processor in the motherboard.
- ☑ ~~Verify that the CPU fan is connected to the motherboard.~~
- ☐ Return the CPU for a new one.

Explanation

Flashing the BIOS or UEFI firmware is often required to upgrade system components, such as to upgrading to a faster processor. If the motherboard documentation lists the processor as supported but it is not correctly recognized, updating the BIOS or UEFI firmware to the latest version may fix the problem. Before you can do this, you must reinstall the old processor in the system to get it back up and running again.

Pressing F8 while booting the system displays the advanced boot menu on older versions of Windows. Replacing the motherboard is probably not required because the motherboard was working correctly with the older CPU and the documentation indicates the new CPU is compatible. Only replace the CPU if you have determined that it is faulty.

References

LabSim for PC Pro, Section 3.4.
[pcpro2016_all_questions_en.exm TRB MB_03]

Question 18: Correct

Your motherboard has two memory slots and supports a maximum of 8 GB of RAM. After installing two 4 GB modules and booting your system, you find that Windows only recognizes 3.5 GB of RAM. What should you do?

- ○ Return both modules for a replacement.
- ○ Change the memory timings in the BIOS to a slower (higher) setting.

- Upgrade to a 64-bit version of Windows.
- Make sure that both modules are seated properly in their slots.
- Reboot the computer and run memory diagnostic tests on the memory.

Explanation

In this situation, you are most likely using a 32-bit version of Windows, which can only address a maximum of 4 GB of RAM. Some of the 4 GB is used by drivers, hence it only reports 3.5 GB of system RAM. Upgrading to a 64-bit version of Windows should fix the problem.

The BIOS should display the total amount of system memory during POST. If it does not count the proper amount of memory, verify that the memory is inserted correctly. In most cases, you will not need to change the memory timings. When you do, it is typically because the system is unstable or crashes. Testing memory helps you identify when specific memory storage locations are going bad. Device Manager will not enable memory not recognized by the BIOS.

References

LabSim for PC Pro, Section 3.4.
[pcpro2016_all_questions_en.exm TRB MB_04]

Question 19: Incorrect

What should you do (if possible) before updating the UEFI firmware? (Select two.)

- [ ] Change the motherboard battery.
- [x] Backup existing UEFI settings.
- [x] ~~Password protect the system.~~
- [ ] Connect the computer to a UPS.
- [ ] Upgrade the processor.

Explanation

If possible, you should connect the computer to an uninterruptible power supply (UPS) before updating the UEFI firmware. Losing power during the update process can cause catastrophic problems. You should also backup your existing UEFI settings before updating. Most BIOS/UEFI setup programs provide an option to save existing settings to a file.

Upgrading the processor, changing the motherboard battery, or setting a system password are not required prior to updating the UEFI firmware.

References

LabSim for PC Pro, Section 3.4.
[pcpro2016_all_questions_en.exm TRB BIOS]

Question 20: Correct

When you try to boot your computer, it hangs after POST. When you access the UEFI setup program, you see that the date is several years behind and the time is set to 12:01 am.

What is the most likely problem?

- The UEFI firmware is corrupt.
- The motherboard battery has failed.
- The UEFI firmware is outdated.

A RAM module has become unseated from its socket.

Explanation

The system Time and date are managed by the Real Time Clock (RTC) in the BIOS/UEFI firmware. If the motherboard battery goes dead, the RTC reverts back to a default date and time. In addition, the BIOS/UEFI may lose all of its configuration settings.

References

LabSim for PC Pro, Section 3.4.
[pcpro2016_all_questions_en.exm TRB CMOS]

Question 21: Correct

After arriving at work, you turn on your computer to begin your day. Instantly, you see smoke and smell a strange odor coming from the computer.

What should you do?

- Open the computer case and look for dust buildup
- Log in and check the Event Viewer
- Call the IT director
- Shut off the system immediately

Explanation

If you see smoke or smell something burning, shut off the system immediately to prevent damage or hazards.

While inspecting your computer, you should look for dust buildup on components and clean them as necessary. The Event Viewer shows past system events and error messages.

References

LabSim for PC Pro, Section 3.4.
[pcpro2016_all_questions_en.exm TRB SMOKE]

Question 22: Correct

A user has called to complain that her computer won't boot. It stops on the system startup screen right after the memory has been tested and displays a 301 keyboard error.

What should you do first?

- Verify that no keys are being pressed down during POST.
- Check your keyboard settings in Control Panel.
- Verify that the latest UEFI firmware updates have been applied.
- Install a new keyboard on the computer.
- Have the user remove all memory modules and replace them one at a time until the error reoccurs.
- Download and install the latest keyboard driver from the manufacturer's Website.

Explanation

You should have the user verify that no keyboard keys are being pressed during POST. With any error, you should always check the obvious first. This error is almost always caused by a stuck key on the keyboard or something resting on a keyboard key. On rare occasions, you may need to install a new keyboard; however, you should look for these obvious problems first.

References

LabSim for PC Pro, Section 3.4.
[pcpro2016_all_questions_en.exm TRB BOOT]

Question 23: Correct

After installing two memory modules, you power on the system to check for errors. You find that the BIOS program recognizes only one of the memory modules. What should you do first?

- Scan for new devices in Device Manager; enable any disabled memory modules.
- Return both modules for a replacement.
- Reboot the computer and run memory diagnostic tests on the memory.
- Change the memory timings in the BIOS to a slower (higher) setting.
- Make sure that both modules are seated properly in their slots.

Explanation

In this case, you should check to ensure that you installed the memory correctly. Most BIOS programs include a memory count that displays the total amount of system memory. If it does not count the proper amount of memory, begin by checking to make sure the memory is inserted correctly. After the memory is installed correctly, if it is still not recognized, try removing one module to identify which module has the problem. Move the modules to different motherboard slots to see if you can get the system to detect the memory. In most cases, you will not need to change the memory timings. When you do, it is typically because the system is unstable or crashes. Testing memory helps you identify when specific memory storage locations are going bad. Device Manager will not enable memory not recognized by the BIOS.

References

LabSim for PC Pro, Section 3.9.
[pcpro2016_all_questions_en.exm TRB MEMORY_01]

Question 24: Correct

You are in the process of configuring a new computer. The motherboard has four memory slots and supports dual-channel memory. You install two memory modules. When you boot the computer, the BIOS recognizes both modules, but the memory is not configured to run in dual-channel mode. What should you do?

- Add continuity modules to unused memory slots.
- Move the modules to the correct motherboard slots.
- Change the CAS latency to a higher setting.
- Replace the memory with dual-channel capable memory.

Explanation

To use dual-channel memory, you will need to install memory in the correct slots. Depending on the motherboard, the two slots might be next to each other, or alternating. Consult the motherboard documentation for the correct configuration. Dual-channel support is mainly a function of the motherboard (e.g., the memory controller), not the memory itself. Continuity modules are used with Rambus RAM; if continuity modules were required on this system, none of the memory would have been detected. The CAS latency is used for memory timing. You might modify the timing if the system is unstable at the current memory timing settings.

References

LabSim for PC Pro, Section 3.9.

[pcpro2016_all_questions_en.exm TRB MEMORY_02]

Question 25: Incorrect

You are in the process of configuring a new computer. The motherboard has six memory slots and supports triple-channel memory. You install two memory modules. When you boot the computer, the BIOS recognizes both modules, but the memory only runs in dual-channel mode. What should you do? (Select two.)

- [ ] Install a third, identical memory module
- [x] Move the modules to the correct motherboard slots.
- [x] ~~Replace the memory with triple-channel capable memory.~~
- [ ] Change the CAS latency to a higher setting.
- [ ] Add continuity modules to unused memory slots.

Explanation

To use triple-channel memory, you will need to install 3 or 6 memory modules in the correct slots. Depending on the motherboard, the slots might be next to each other, or alternating. Consult the motherboard documentation for the correct configuration. Triple-channel support is mainly a function of the motherboard (i.e. the memory controller), not the memory itself. Continuity modules are used with Rambus RAM; if continuity modules were required on this system, none of the memory would have been detected. The CAS latency is used for memory timing. You might modify the timing if the system is unstable at the current memory timing settings.

References

LabSim for PC Pro, Section 3.9.
[pcpro2016_all_questions_en.exm TRB MB_05]

Question 26: Correct

You have installed a new computer with a quad-core 64-bit processor, 6 GB of memory, and a PCIe video card with 512 MB of memory. After installing the operating system, you see less than 4 GB of memory showing as available in Windows. What should you do?

- ( ) Disable the AGP aperture in the BIOS.
- ( ) Flash the BIOS.
- ( ) Update the memory controller driver in Device Manager.
- (•) Install a 64-bit version of the operating system.

Explanation

In this scenario, the most likely cause is the operating system being a 32-bit operating system. You must use a 64-bit operating system to use memory above 4 GB. The AGP aperture is a method for sharing system memory with an AGP (not PCIe) video card. With shared memory, some of the memory is used by the video card and is not available for the system. You do not update memory controller drivers.

References

LabSim for PC Pro, Section 3.9.
[pcpro2016_all_questions_en.exm TRB MEMORY_04]

Question 27: Correct

Which of the following is an error detection technique that can detect errors with only one bit?

- [x] Parity
- [ ] Non-parity
- [ ] ECC
- [ ] EDO

Explanation

Parity error detection can only detect errors with only one bit, while Error Correcting Code (ECC) can detect errors with more than one bit. EDO is not a type of error correction, it is a type of memory that can start a new access cycle while keeping the data output of the previous cycle active.

References

LabSim for PC Pro, Section 3.9.
[pcpro2016_all_questions_en.exm PARITY]

Question 28: Correct

Which of the following is an error detection technique that can also correct the error?

- [ ] EDO
- [x] ECC
- [ ] Non-parity
- [ ] Parity

Explanation

Error Correcting Code (ECC) can detect and correct errors. Parity error detection techniques can detect errors but cannot correct them. The data must be resent. EDO is not a type of error detection, it is a type of memory that can start a new access cycle while keeping the data output of the previous cycle active.

References

LabSim for PC Pro, Section 3.9.
[pcpro2016_all_questions_en.exm ECC]

Question 29: Correct

You have just built a new system from scratch. You turn the computer on but the system boot fails and sounds a beep code.

What might be the issue?

- [ ] New and old memory has been mixed
- [ ] The system includes unsupported memory
- [x] Memory not installed or not detected
- [ ] Incompatible memory was installed

Explanation

If memory was not installed in the new computer or was not detected during boot up, system boot will fail and sound a beep code.

If unsupported memory was installed, the system will boot but the display will be blank. If incompatible memory was installed, such as combining dual-bank with single-bank memory, the

system will boot but the memory count will be incorrect. If a mix of new and old memory was used, the system will boot but will display a memory error message.

References

LabSim for PC Pro, Section 3.9.
[pcpro2016_all_questions_en.exm TRB MEMORY_05]

Question 30: Incorrect

Which type of software-generated problems can indicate that a software bug is causing a memory error? (Select three.)

- [ ] Page fault
- [x] ~~Incorrect memory count~~
- [ ] Registry error
- [x] ~~Parity interrupt~~
- [x] Exception error
- [ ] General-protection fault

Explanation

Software-generated memory problems include the following:

- Exception error
- General-protection fault
- Page fault

Registry errors indicate that parts of the registry are written to faulty sections of RAM. Parity interrupt usually indication a failing module or discrepancies between new and old memory. An incorrect memory count can happen with incompatible memory installation; remember to avoid combining dual-bank with single-bank memory.

References

LabSim for PC Pro, Section 3.9.
[pcpro2016_all_questions_en.exm TRB MEMORY_06]

Question 31: Correct

You are troubleshooting a client connectivity problem on an Ethernet network. The client system has intermittent connectivity to the network. You discover that the unshielded twisted pair patch cable runs 75 feet from the wall outlet, passes through the ceiling and over several florescent light fixtures before reaching the client system. Which of the following may be a cause of the connectivity problem?

- ( ) Failed patch cable
- ( ) Crosstalk
- ( ) Attenuation
- ( ) The UTP cable does not support transmission distances of 75 feet without signal regeneration.
- (•) EMI interference

Explanation

In this case, the most likely cause of the problem is electromagnetic interference (EMI) from the

florescent lights. Cables run near air conditioners, lights, or other large electronic devices can create interference for data traveling through the cable.
UTP cables in an Ethernet network have a maximum segment length of 100 meters. Distances beyond this length may require signal regeneration. Devices such as Ethernet switches provide signal regeneration. Attenuation describes the process of signal degradation as it passes through network media. As mentioned, UTP cables in an Ethernet network can run 100 meters before attenuation becomes a significant problem. Crosstalk refers to the interference caused by overlapping signals when cables are run in close proximity to each other.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm PC 2016 EMI INTERFERENCE]

Question 32: Correct

You have recently been called to troubleshoot network connectivity problems at a user's workstation. You have found that the network cable runs across high-traffic areas on the floor, causing the cable to wear through and break. You have replaced the cable with a plenum rated, shielded, twisted pair cable. You would like to minimize the problem and prevent it from happening again.

What should you do?

- (●) Run the cable through the ceiling area instead of across the floor.
- ( ) Encase the cable in a protective shield and secure the cable to prevent it from slipping.
- ( ) Run the cable under the carpet.
- ( ) Periodically check the cable for kinks and wear. Replace the cable when necessary.

Explanation

Because the cable is a plenum rated cable, you can run the cable through the ceiling area. This is the best method of preventing wear to the cables. The cable shielding will also protect the cable from some electromagnetic interference. However, you should be sure to avoid running the cable directly across light fixtures.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm PC 2016 STP CABLING]

Question 33: Incorrect

Your organization uses an 802.11g wireless network. Recently, other tenants installed the following equipment in your building:

- A wireless television distribution system running at 2.4 GHz
- A wireless phone system running at 5.8 GHz
- A wireless phone system running at 900 MHz
- An 802.11a wireless network running in the 5.725 - 5.850 GHz frequency range
- An 802.11n wireless network running in the 5.8 GHz frequency range.

Since this equipment was installed, your wireless network has been experiencing significant interference. Which system is to blame?

- ( ) The 802.11a wireless network.
- ( ) The wireless TV system.
- ( ) The 802.11j wireless network.
- ( ) The 900 MHz wireless phone system.

~~The 5.8 GHz wireless phone system.~~

Explanation

Because the 802.11g standard operates within the 2.4 GHz to 2.4835 GHz radio frequency range, the most likely culprit is the wireless TV distribution system running at 2.4 GHz.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm PC 2016 WIRELESS TV SYSTEM]

Question 34: Incorrect

You are troubleshooting network connections on a Windows workstation and you want to view a list of connections on the computer. How can you do this? (Select two.)

- [ ] On the Start menu, right-click Computer and select Manage.
- [x] On the Start menu, right-click Network and select Properties.
- [ ] On the Start menu, click Control Panel, then click Network and Internet.
- [ ] On the Start menu, right-click Network and select Open Network and Sharing Center.
- [x] ~~On the desktop, right-click Network Neighborhood and select Properties.~~

Explanation

To view the list of available connections, right-click Network on the Start menu and select Properties. Alternatively, you could also click Control Panel on the Start menu, then click Network and Internet. Network Neighborhood is not available on modern versions of Windows--it has been replaced with Network. Opening Network shows a list of shared network resources, not network connections. Right-clicking computer on the Start menu and selecting Manage opens Computer Management. The Network and Sharing Center can't be accessed from the properties of Network on the Start Menu.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_02]

Question 35: Incorrect

Which tool in Windows would you use to browse all networks and shared folders to which a user has access? (Select three.)

- [x] Computer
- [ ] Network
- [x] ~~Network Neighborhood~~
- [ ] Device Manager
- [x] Windows Explorer
- [ ] Computer Management

Explanation

Network acts as a built-in network browser showing all networks and shared folders to which the user has access. This same information can be viewed in Computer and Windows Explorer. Network Neighborhood was used in previous Windows versions, but was replaced by My Network

Places in Windows 2000, Me, and XP and by Network in Windows Vista and Windows 7. Computer Management and Device Manager are used to manage hardware and software in the Windows system and can't be used to browse the network.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_01]

Question 36: Correct

A user on your network has been moved to another office down the hall. After the move she calls you, complaining that she has only occasional network access through her wireless connection. Which of the following is most likely the cause of the problem?

- (selected) The client system has moved too far away from the access point.
- The encryption level has been erroneously set back to the default setting.
- An SSID mismatch between the client and the server.
- The client has incorrect WPA2 settings.
- An SSID mismatch between the client and the WAP.

Explanation

In this case, the wireless client system has had no problems accessing the wireless access point until the move to the new office. In some cases moving a system will cause signal loss either from the increased distance away from the WAP or from unexpected interference by such things as concrete walls or steel doors. There are several ways to correct the problem including reducing the physical distance to the client, using a wireless amplifier, upgrading the antennas on the wireless devices or adding another WAP to the infrastructure. Because the client could previously access the WAP and still has occasional access, it is likely that the move was the cause of the problem rather than any configuration setting on the client system.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB WIRELESS_01]

Question 37: Correct

A user calls to report that she is experiencing intermittent problems while accessing the wireless network from her laptop computer. While talking to her, you discover that she is trying to work from the break room two floors above the floor where she normally works. What is the most likely cause of her connectivity problem?

- The user needs a new IP address because she is working on a different floor.
- The user has not yet rebooted her laptop computer while at her new location.
- The wireless network access point on the user's normal floor has failed.
- (selected) The user is out of the effective range of the wireless access point on her floor.
- The user has not yet logged off and back on to the network while at her new location.

Explanation

Because the user is only experiencing intermittent problems, the most likely cause is that she is out of the effective range of the wireless network access point. All of the other answers listed may be appropriate if the user was unable to connect to the network at all. However, as the user is experiencing only intermittent problems, none of the other answers is likely to be the cause of the problem.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB WIRELESS_02]

Question 38: Correct

A user calls to report that she is experiencing intermittent problems while accessing the wireless network from her laptop computer. While she normally works from her office, today she is trying to access the wireless network from a conference room which is across the hall and next to the elevator. What is the most likely cause of her connectivity problem?

- SSID broadcast has been disabled.
- MAC filtering is preventing the computer from connecting.
- Interference is affecting the wireless signal.
- The user has not yet rebooted her laptop computer while at her new location.
- The client computer is using the wrong channel number.

Explanation

In this scenario, interference from the elevator motor is the most likely cause. Cordless phones or motors can generate interference that could affect wireless signals. Interference is a common cause of intermittent problems. Windows clients automatically detect the channel to use. If the SSID had changed or MAC filtering were preventing access, the computer would not be able to connect at all, even from her office.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB WIRELESS_03]

Question 39: Correct

You have a network port in an office that connects to the server room using wires strung through the ceiling. Which tool would you use to verify that a signal can be sent from one end to the other?

- Multimeter
- Cable tester
- Power supply tester
- IC extractor

Explanation

A cable tester verifies that a network can carry a signal from one end to the other, and that all wires within the connector are in their correct positions. A multimeter can also be used to test network cables, but it is much more cumbersome than using a cable tester. A power supply tester is specifically designed to test DC current flowing from most connectors coming from a PC power supply. An IC extractor is a tweezer-like tool, usually spring loaded in the open position, used to remove integrated circuit chips.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_03]

Question 40: Incorrect

You're trying to access your office network with your Windows workstation from home using

your organization's virtual private network (VPN). Your DSL modem has connected to your ISP, but you can't connect to your office network. You issue the ipconfig command from the command prompt and learn that your system has been assigned an IP address of 169.254.1.12. What's causing the problem?

- ~~Your ISP's DNS server isn't working properly.~~
- Your organization's VPN is down.
- Your modem doesn't support the v.56 standard, which is needed for VPN access.
- Your ISP's DHCP server isn't working properly.
- Your organization's firewall is filtering VPN connections.

Explanation

Anytime you see a network interface assigned an IP address in the 169.254.0.1 to 169.254.255.254 range, you know that it was unable to acquire an IP address from a DHCP server. Automatic Private IP Addressing (APIPA) on the workstation automatically took over and assigned an IP address in the range listed above. Because of this, the workstation isn't configured with the correct router and DNS server addresses, and can't access the company's VPN.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_04]

Question 41: Incorrect

Your workstation is unable to communicate with any other computer on the network. Which of the following tools should you use to test the ability of the network card to send and receive signals?

- Loopback plug
- ~~Cable tester~~
- Ohmmeter
- Multimeter

Explanation

Use a loopback plug to test the network card's ability to send and receive signals. Pinging the local host (ping 127.0.0.1) tests the TCP/IP protocol stack, but does not actually send signals out the network card. A cable tester tests continuity of all wires in a cable and ensures that wires are connected appropriately in the plugs. Use a multimeter and an ohmmeter to test the electrical properties of cables and signals.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_05]

Question 42: Correct

Your home network is connected to the Internet through a 512 Mbps DSL line. Your ISP provided you with a small office/home office (SOHO) router that provides four 100 Mbps Ethernet ports for your home office and one DSL port for connecting the network to the Internet. The SOHO router has a built-in DHCP server that is used to automatically configure workstations with an IP address, default gateway address, and DNS server address. However, today you are unable to access the Internet. The browser reports that it can't find the URLs you are requesting. Using the ipconfig command, you've verified that the workstation is receiving correct IP address

parameters. You tried entering tracert 137.65.1.2 at a command prompt and found that you're able to reach this server on the Internet without any issues. What is causing this problem?

- Automatic Private IP Addressing (APIPA) has assigned a non-routable IP address to your workstation.
- Your built-in DHCP server isn't working properly.
- Your ISP's DSL service may be down.
- Your ISP's DNS server is down.
- The SOHO router isn't working properly.

Explanation

Because your workstation is able to receive correct IP parameters from the built-in DHCP server, you know that the home office side of the SOHO router is working correctly. The fact that you're able to trace the route from your workstation to a server on the Internet using its IP address indicates that routing is working properly. This, coupled with the browser error message, would indicate that the most likely problem is a down or malfunctioning DNS server. You could test this hypothesis by trying to access a Web site using an IP address in the URL instead of a domain name.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_06]

Question 43: Incorrect

You administer a network with Windows and Linux servers, and Windows 7 clients. A user calls and indicates that he is unable to access resources on the network. You type ipconfig on the user's computer and receive the following output:

Ethernet adapter Local Area Connection:

IPv4 address. . . . . : 169.254.1.17

Subnet Mask . . . . . : 255.255.0.0

Default Gateway . . . . . :

You check your NIC and see the link light on. What might the problem be?

- ~~Missing default gateway~~
- The user changed the configuration of the computer
- Unavailable DHCP server
- Bad NIC
- Misconfigured DNS server

Explanation

If a Windows client computer is configured to use DHCP and cannot locate one to receive IP addressing information, it assigns itself an IP address from the APIPA (Automatic Private IP Addressing) range of IP addresses. APIPA addresses include IP addresses from 169.254.0.0 to 169.254.255.254 and are reserved for this purpose. A lit link light on your NIC indicates a good connection to the network.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_07]

Question 44: Incorrect

You are troubleshooting a network communication problem to the www.widgets.com server. Which of the following will give you the IP address of that server? (Select two.)

- [ ] ipconfig www.widgets.com
- [ ] ipconfig /all
- [x] ping www.widgets.com
- [ ] nslookup www.widgets.com

Explanation

To get the IP address from a host name, use the nslookup command. You can also try to ping the device using the host name. The first step in the ping test is to find the IP address of the specified host.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_08]

Question 45: Incorrect

You are troubleshooting connectivity between your computer and the www.widgets.com server, whose IP address is 192.168.1.1. Which of the following commands tests connectivity to the device as well as name resolution?

- ( ) nslookup 192.168.1.1
- (•) ~~ping 192.168.1.1~~
- ( ) ping www.widgets.com
- ( ) nslookup www.widgets.com

Explanation

To test both name resolution and communication with the server, use the ping command with the host name. The first step in the ping test is to find the IP address of the specified host. Using ping with just the IP address will not test name resolution. Using nslookup only tests name resolution, it does not test communication with the end device.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_09]

Question 46: Incorrect

You have just connected a new computer to your network. The network uses static IP addressing. You find that the computer can communicate with hosts on the same subnet, but not with hosts on a different subnet. No other computers are having a problem. Which of the configuration values would you most likely need to change?

- (•) ~~Subnet mask~~
- ( ) DNS server
- ( ) IP address
- ( ) Default gateway

Explanation

Check the default gateway setting on the computer. The default gateway value is used for sending packets to other subnets. If the value is incorrect, then the packets will not be sent to the correct router. In this scenario, the host can communicate with other hosts on the same subnet, meaning that the IP address and subnet mask are correctly configured. The DNS server address is likely not the problem as name resolution is not mentioned in the scenario. In addition, if name resolution were a problem, it could affect access to both local and remote hosts.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_10]

Question 47: Correct

A user reports that he can't browse to a specific website on the Internet. From his computer, you find that a ping test to the Web server succeeds. A trace route test shows 17 hops to the destination Web server. What is the most likely cause of the problem?

- (•) Incorrect DNS server address
- ( ) Incorrect default gateway address
- ( ) Duplicate IP addresses
- ( ) Incorrect subnet mask value

Explanation

In this scenario, a ping test to the Web site succeeds, while accessing the Web site through the browser does not work. Users type host names in the browser to go to Web sites, and host names must be translated to IP addresses by a DNS server. Either the workstation is using the wrong address for the DNS server, the DNS server is not available, or the DNS server does not have an entry for the Web site. Because the ping and trace route tests work, you know that the IP address, subnet mask, and default gateway values are correct.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_11]

Question 48: Incorrect

You manage a network that has multiple internal subnets. You connect a workstation to the 192.168.1.0 subnet, which uses the default subnet mask. This workstation can communicate with some hosts on the private network, but not with other hosts. You run ipconfig /all and see the following:

Ethernet adapter Local Area Connection:

Connection-specific DNS Suffix . : mydomain.local

Description . . . . . : Broadcom network adapter

Physical Address. . . . . : 00-AA-BB-CC-74-EF

DHCP Enabled . . . . . : No

Autoconfiguration Enabled. . . : Yes

IPv4 Address . . . . . : 192.168.1.102(Preferred)

Subnet Mask. . . . . : 255.255.0.0

Default Gateway . . . . . : 192.168.1.1

DNS Servers . . . . . : 192.168.1.20 192.168.1.27

What is the most likely cause of the problem?

- ~~Incorrect DNS server address~~
- Incorrect subnet mask
- Incorrect default gateway
- Incorrect IP address

Explanation

In this example, the network is using a mask of 255.255.255.0 (24-bits), but the workstation is configured to use a mask of 255.255.0.0.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_12]

Question 49: Incorrect

You manage a network that has multiple internal subnets. You connect a workstation to the 192.168.1.0 subnet using the default subnet mask. This workstation can communicate with some hosts on the private network, but not with other hosts. You run ipconfig /all and see the following:

Ethernet adapter Local Area Connection:

Connection-specific DNS Suffix . : mydomain.local

Description . . . . . : Broadcom network adapter

Physical Address. . . . . : 00-AA-BB-CC-74-EF

DHCP Enabled . . . . . : No

Autoconfiguration Enabled. . . : Yes

IPv4 Address . . . . . : 192.168.1.102(Preferred)

Subnet Mask . . . . . : 255.255.255.0

Default Gateway. . . . . : 192.168.2.1

DNS Servers. . . . . : 192.168.2.20

What is the most likely cause of the problem?

- Incorrect DNS server address
- ~~Incorrect subnet mask~~
- Incorrect default gateway
- Incorrect IP address

Explanation

In this example, the default gateway address is incorrect. The default gateway address must be on the same subnet as the IP address for the host. The host address is on the 192.168.1.0/24 subnet, but the default gateway address is on the 192.168.2.0 subnet.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_13]

Question 50: Correct

While troubleshooting a network issue, you successful ping the 127.0.0.1 IP address. Which of the following is true?

- ➡ (●) The TCP/IP protocol suite is working correctly on the local computer.
- ( ) The TCP/IP protocol suite is working correctly on the DHCP server.
- ( ) The TCP/IP protocol suite is working correctly on the DNS server.
- ( ) The TCP/IP protocol suite is working correctly on the default gateway.

Explanation

The 127.0.0.1 IP address is reserved as the loopback address of the local computer. A successful ping to 127.0.0.1 indicates the TCP/IP protocol suite is working correctly on the local computer.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_14]

Question 51: Correct

Which of the following commands verifies that TCP/IP is working correctly on the local computer?

- ( ) nslookup localhost
- ( ) netstat
- ➡ (●) ping 127.0.0.1
- ( ) ping -a localhost

Explanation

Use ping 127.0.0.1 to test the TCP/IP configuration of the local system. The special address of 127.0.0.1 is a loopback address that identifies the local host. A successful ping test to the local host identifies that TCP/IP is correctly configured. Use nslookup to find the IP address for a given hostname. Use ping -a to find the hostname for a given IP address. Netstat shows IP-related statistics.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_15]

Question 52: Incorrect

A user is having problems connecting to other computers using host names. Which of the following commands will help you troubleshoot this problem?

- (●) ~~netstat~~
- ( ) nbtstat
- ( ) arp
- ➡ ( ) nslookup

Explanation

Use Nslookup to troubleshoot DNS name resolution problems. Use Arp to view information about MAC addresses and their corresponding IP addresses. Netstat (network statistics) is a command-

line tool that displays network connections (both incoming and outgoing), routing tables, and a number of network interface statistics. Use Nbtstat to help troubleshoot NetBIOS name resolution problems.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_16]

Question 53: Incorrect

You work in an office that uses Linux and Windows servers. The network uses the IP protocol. You are sitting at a Windows workstation and an application you are using is unable to connect to a Windows server named FileSrv2. Which commands can you use to test network connectivity between your workstation and the server? (Select two.)

- [x] tracert
- [ ] ping
- [ ] dig
- [x] ~~nslookup~~
- [ ] arp

Explanation

On an IP-based network, you can use the ping command to check connectivity between a source and destination computer. You can also use tracert on a Windows system to check the routing path between two hosts. The tracert command performs the same function as ping, but includes the path information. Use nslookup and dig on Windows and Linux to resolve the IP addresses of host names using DNS lookups. Use Arp to view information about MAC addresses and their corresponding IP addresses.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_17]

Question 54: Correct

You are troubleshooting network connectivity issues on a Windows workstation. Which command would you use to view the MAC address of the network adapter?

- (•) ipconfig /all
- ( ) ping
- ( ) ipconfig
- ( ) netstat
- ( ) nslookup

Explanation

Use ipconfig /all to view detailed network configuration information. The /all switch shows additional information not shown by using ipconfig alone. Ping sends an ICMP echo request/reply packet to a remote host. Nslookup resolves (looks up) the IP address of a host name. Netstat displays network connections, routing information, and network statistics.

References

LabSim for PC Pro, Section 6.14.

[pcpro2016_all_questions_en.exm TRB NETWORKING_18]

Question 55: Correct

You are troubleshooting network connectivity issues on a workstation. Which command would you use to request new IP configuration information from a DHCP server?

- net use
- ➡ ipconfig /renew
- net config
- ipconfig /all

Explanation

Use ipconfig /renew to request new IP configuration information from the DHCP server. Use ipconfig /all to view detailed configuration information. The /all switch shows additional information not shown by using ipconfig alone. Use the net use command to map a drive letter to a network share. Run net config to view the status of workstation or server services.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_19]

Question 56: Correct

Which command would you use to have a workstation stop using an IP address that it obtained from a DHCP server?

- ipconfig /renew
- ➡ ipconfig /release
- net stop
- net logoff

Explanation

Use ipconfig /release to release the IP configuration information obtained from the DHCP server. Use ipconfig /renew to request new IP configuration information from the DHCP server. Use net stop to stop a network service. Use net logoff to break the connection between your computer and a shared resource.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_20]

Question 57: Correct

While troubleshooting a network connection, you decide to use the ping command. Which switch allows for a continuous ping?

- -a
- -c
- -l
- ➡ -t

Explanation

Use ping with the -t switch to do a continuous ping test. Use Ctrl + C to stop sending ping tests. Use the -l switch to configure the packet payload size to use in the test. With this test, you can identify when packets above a certain size are being lost. Use the -a switch to resolve addresses to host names. The -c switch does not exist.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_21]

Question 58: Incorrect

You suspect large packets are being dropped on your network because of their large size. Which utility can you use to confirm your suspicion?

- ping -l
- nslookup
- ~~netstat~~
- ping -t
- tracert

Explanation

Use ping -l to configure the payload size to identify when packets above a certain size are being lost. Ping -t continuously sends pings to a specific device. Tracert tests connectivity between devices while showing the path between the two devices. Nslookup resolves (looks up) the IP address of a host name. Netstat shows IP-related statistics.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_22]

Question 59: Correct

Examine the following output:

Reply from 64.78.193.84: bytes=32 time=86ms TTL=115

Reply from 64.78.193.84: bytes=32 time=43ms TTL=115

Reply from 64.78.193.84: bytes=32 time=44ms TTL=115

Reply from 64.78.193.84: bytes=32 time=44ms TTL=115

Which utility produced this output?

- ping
- nslookup
- tracert
- ifconfig

Explanation

The output shown was produced by the ping utility. Specifically, the information output was created using the ping -t command. The -t switch causes packets to be sent to the remote host continuously until stopped manually. Ping is a useful tool for testing connectivity between devices on a network. Using the -t switch with ping can be useful in determining whether the network is congested, as such a condition will cause sporadic failures in the ping stream.

Tracert is similar to ping in that it tests connectivity between two hosts on the network. The

difference is that tracert reports information on all intermediate devices between the host system and the target system. Ping, on the other hand, does not report information on intermediate devices. Nslookup is a tool provided on Linux, Unix, and Windows systems that allows manual name resolution requests to be made to a DNS server. This can be useful when troubleshooting name resolution problems. Ifconfig is a tool used on Unix, Linux, and Macintosh systems to view the configuration of network interfaces, including TCP/IP network settings.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_23]

Question 60: Incorrect

Examine the following output:

4 22 ms 21 ms 22 ms sttlwa01gr02.bb.ispxy.com [154.11.10.62]

5 39 ms 39 ms 65 ms plalca01gr00.bb.ispxy.com [154.11.12.11]

6 39 ms 39 ms 39 ms Rwest.plalca01gr00.bb.ispxy.com [154.11.3.14]

7 40 ms 39 ms 46 ms svl-core-03.inet.ispxy.net [205.171.205.29]

8 75 ms 117 ms 63 ms dia-core-01.inet.ispxy.net [205.171.142.1]

Which command produced this output?

- ~~nslookup~~
- tracert
- netstat
- ping

Explanation

The output is from a tracert command run on a Windows Server system. The tracert command provides information on each step in the route a packet takes to reach a remote host. Responses from each hop on the route are measured three times to provide an accurate representation of how long the packet takes to reach, and be returned by that host. This information can be useful in locating congestion points on a network, or when verifying that network routing is operating as expected. The ping command is used to test connectivity between devices on a network. Like tracert, ping sends three packets to the target host, but it does not report information on any intermediate devices it traverses to reach the target. Nslookup is a tool provided on Linux, Unix, and Windows systems that allows manual name resolution requests to be made to a DNS server. This can be useful when troubleshooting name resolution problems.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_24]

Question 61: Correct

Examine the following output:

Server: helicuplar.xct.takro.net

Address: 209.53.4.130

Name: westsim.com

Address: 64.78.193.84

Which command produced this output?

- ipconfig

- netstat
- tracert
- ➡ nslookup

Explanation

The output is from the nslookup command on a Windows Server system. Nslookup is a tool that allows you to send manual DNS resolution requests to a DNS server. The output displays the IP address and hostname of the DNS server that performed the resolution, and the IP address and hostname of the target specified for resolution. Nslookup can be a useful tool when troubleshooting DNS name resolution problems. The ipconfig utility is used on a Windows system to view the TCP/IP configuration of network interfaces. Netstat is used to view protocol connections that have been established by the system, as well as what incoming TCP/IP ports are in use by the system. Tracert is a tool used to view information on the route a packet takes as it traverses the network to a remote host.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_25]

Question 62: Correct

You are the network administrator of a branch office of your company. The branch office network is part of a WAN that covers most of the United States. Users have been complaining that they are unable to access resources over the WAN at the main headquarters. You suspect that one of the routers between your office and the main headquarters is not working properly. What TCP/IP utility can you use to see if a router is not working properly?

- netstat
- ➡ tracert
- nbtstat
- nslookup

Explanation

Tracert shows you the series of routers that are used between the source and destination computers. If a router is not functioning, tracert can help you find which router is not working by showing you the last router it was successfully able to contact. Netstat (network statistics) is a command-line tool that displays network connections (both incoming and outgoing), routing tables, and a number of network interface statistics. Use Nbtstat to help troubleshoot NetBIOS name resolution problems. Use Nslookup to find the IP addresses of a particular computer using DNS lookup.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm TRB NETWORKING_26]

Question 63: Correct

Portable devices have a software-controlled switch that disables all wireless functionality. What is the name of this software-controlled switch?

Explanation

Instead of a physical switch, some portable devices have a software-controlled switch called *Airplane Mode*. When in Airplane Mode, all wireless functionality is disabled.

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm AIRPLANE MODE]

Question 64: Incorrect

Which of the following are antenna types that are commonly used in wireless networks? (Select two.)

- [ ] Directional antenna
- [x] Omnidirectional antenna
- [x] ~~Full-duplex antenna~~
- [ ] Half-duplex antenna
- [ ] High EMI antenna
- [ ] Low EMI antenna

Explanation

Directional and *omnidirectional* are two types of antennae commonly used in wireless networks.

A directional antenna:

- Creates a narrow, focused signal in a particular direction, which increases the signal strength and transmission distance
- Provides a stronger point-to-point connection; is better equipped to handle obstacles

An omnidirectional antenna:

- Disperses the RF wave in an equal 360-degree pattern
- Provides access to many clients in a radius

References

LabSim for PC Pro, Section 6.14.
[pcpro2016_all_questions_en.exm ANTENNA TYPES]

Question 65: Incorrect

You recently replaced a malfunctioning video card on your laptop. After reassembling the laptop, everything works well except for the wireless network connection. The wireless adapter functioned correctly before you replaced the video card. What would most likely resolve this problem?

- ( ) Reconnect the laptop battery.
- ( ) Reconnect the antenna connections.
- (•) ~~Replace the wireless network card.~~
- ( ) Use a wireless network adapter that plugs into a USB port.

Explanation

The wireless connection is affected by the internal antenna. After replacing a video card or LCD screen, be sure to reconnect the antenna leads when reassembling. Because the wireless connection functioned correctly before you replaced the video card, you know the network card works fine and should not need replacement. A USB-compatible wireless network device would provide a new connection, but does not necessarily resolve the problem. Because all of the other

components function correctly, removing and reconnecting the battery would not resolve the internal Internet connection.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_01]

Question 66: Correct

After arriving in a new city today, a traveling sales team member calls you stating that his wireless connection no longer works. He has checked the wireless configuration and he knows it to be correct because it was working yesterday. What should you do first?

- Have him update the drivers for the wireless card.
- Have him purchase a USB wireless card to use until you can check the problem yourself.
- Have him verify that the wireless card's hardware switch is in the On position.
- Have him manually configure the wireless card to use only 802.11b.

Explanation

Have the user verify that the wireless card's hardware switch is in the On position. Many built-in wireless cards can be turned off and on through a switch on the laptop case. Because this is a likely problem and easy to check, you should do this first before trying other solutions.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_02]

Question 67: Incorrect

One of your users has called to complain about her notebook computer. She reports that it displayed a message indicating that the battery was low, then it shut down by itself even though it was plugged into a wall outlet. What should you check first?

- Verify that the AC adapter LED light is lit when plugged into the wall outlet.
- ~~Verify that the battery will accept a charge.~~
- Verify that the power management settings in the BIOS are configured properly.
- Verify that the power management settings in Windows are configured properly.

Explanation

You should first verify that the notebook's AC adapter LED light is lit. The problem with the notebook system is that it's running on battery, not on AC power. The user indicated that the system is plugged into the wall outlet--therefore, AC current from the wall isn't making it into the notebook. This could be caused by a loose plug, a malfunctioning AC adapter, or a power outage. Checking the LED light will quickly help you determine if this is the case.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_03]

Question 68: Correct

While using the touchpad, you notice that the mouse is not responding very well, making it difficult to move the mouse around the screen correctly. How can you fix this problem?

- Recalibrate the touchpad.

- Replace the touchpad.
- Use a stylus on the touchpad.
- Clean your fingers and try again.

Explanation

To fix this problem, you need to recalibrate the touchpad. The most common problem for the touchpad is that the mouse cursor is not controlled properly based on where you press. Some notebooks recalibrate the touchpad at every system boot. Most notebooks include a utility for calibrating the touchpad. A stylus is used on a digitizer pad or touch screen found in tablet PCs.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_04]

Question 69: Correct

You have just purchased a new laptop with built-in 802.11 wireless and Bluetooth capabilities. When you boot into Windows, you do not see a Bluetooth adapter listed in Device Manager. What should you do first?

- Enable the Bluetooth device in Device Manager.
- Update the device driver in Windows.
- **Enable Bluetooth in the BIOS/UEFI configuration.**
- Replace the wireless card in the laptop.

Explanation

You can enable and disable built-in devices in the system BIOS/UEFI configuration. Check the BIOS/UEFI configuration first before trying to replace components. You cannot enable the device or update the driver in Windows until Windows can see the device. With the device disabled in the BIOS/UEFI configuration, Windows does not know that the device exists.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_05]

Question 70: Correct

You recently upgraded the processor in your laptop computer to a faster processor. The computer runs, but after using it for several minutes, it shuts down unexpectedly. Which of the following should you do first?

- **Make sure the case fans are plugged in.**
- Test the memory for errors.
- Use a multimeter to test the inverter.
- Charge the battery, then run the laptop from the battery.

Explanation

Because you have recently replaced the processor, check things related to the processor or to items you had to disconnect and reconnect when replacing the processor. In addition, periodic shutdowns are often caused by overheating. Because of the limited space in a notebook case, the processor uses a heat pipe to pull heat towards the side of the case where a small fan can vent the heat from the case. Make sure the system case fans are plugged in and work properly.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_06]

Question 71: Correct

You're troubleshooting a malfunctioning LED display on a notebook computer system. An external monitor correctly displays the output from the notebook. Which of the following could be the cause?

- Failed video adapter
- Failed inverter
- Failed backlight
- Failed CCFL

Explanation

In this case, the LED backlight has failed. The backlight provides illumination to the display. Because the output displays fine on the external monitor, you know the problem is not related to the video card. LED backlights use DC power, eliminating the need for an inverter. A CCFL is one of the backlight methods (LED being the other), and uses an inverter to provide AC power to the backlight.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_10]

Question 72: Incorrect

In preparation to use your laptop on the airplane as you travel to a conference, you disconnected the USB mouse. However, after removing the external mouse, the cursor drifts consistently to the left side of the screen while using the built-in trackpad and mouse buttons. What should you do?

- Access the BIOS/UEFI configuration and disable the USB pointer option
- ~~Calibrate the trackpad in Control Panel~~
- Update the trackpad drivers
- Replace the trackpad

Explanation

This issue is frequently seen in notebook systems where both the internal trackpad and an external mouse interface (such as USB or even PS/2) are enabled at the same time in the BIOS/UEFI configuration. Essentially, the two mouse interfaces contend with each other for control of the cursor. This problem can be fixed by disabling the external mouse option in the BIOS/UEFI configuration. If that doesn't work, then you can try updating the trackpad drivers or even replacing the trackpad.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_11_NEW]

Question 73: Correct

Recently your laptop doesn't power on and the battery is not charging. You suspect the block on the power cord (also known as a brick) no longer works. Which tool will help you troubleshoot this problem?

- ○ Loopback plug
- ➡ ◉ Multimeter
- ○ Power supply tester
- ○ Cable tester

Explanation

In this case, you should use a multimeter to test the DC current flowing from the brick. If the current is incorrect, then you may need a replacement AC adapter. A power supply tester is specifically designed to test DC current flowing from a PC power supply and its associated connectors. A cable tester verifies that a network can carry a signal from one end to the other, and that all wires within the connector are in their correct positions. A loopback plug lets you test a port for proper functionality. The loopback plug crosses the receive and transmit wires, letting the computer send a signal to itself.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_12]

Question 74: Incorrect

You're attempting to diagnose a problem with a notebook computer. The user reports that it displayed a message indicating that the battery was low, then it shut down by itself even though it was plugged into a wall outlet. You've checked the AC adapter and found that the LED light is lit when plugged into a wall outlet. What should you check next? (Select two.)

- ☑ ~~Verify that the battery will accept a charge.~~
- ☐ Verify that the power management settings in Windows are configured properly.
- ➡ ☑ Verify that the AC adapter produces the correct DC voltage for the notebook computer.
- ➡ ☐ Verify that the power LED on the notebook computer is lit when plugged into the wall outlet.
- ☐ Verify that the power management settings in the BIOS are configured properly.

Explanation

You should verify that the AC adapter produces the correct DC voltage for the notebook computer and that the power LED on the notebook computer is lit when plugged into the wall outlet. The problem in this scenario is that the DC current from the AC adapter isn't making it to the notebook computer, even though the AC current from the wall outlet is arriving at the AC adapter correctly. This could be caused by an incorrect DC voltage level, a loose connector, or a malfunctioning AC adapter.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_14]

Question 75: Correct

You're troubleshooting a notebook system that uses a digitizer pad and stylus for user input. The user has complained that the digitizer pad registers stylus taps about 1 inch to the right of where the tap actually occurred. How can you fix this problem?

- ○ Hold the stylus at an increased angle.
- ○ Replace the stylus.

- [x] Recalibrate the digitizer pad.
- [ ] Remove any scratches from the digitizer pad.
- [ ] Replace the digitizer pad.

Explanation

To fix this problem, you need to recalibrate the digitizer pad. Over time, digitizer pads on notebooks can develop drift. This can be fixed by running a recalibration program, usually included with the pad.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_15]

Question 76: Correct

A user is trying to log into Windows on her notebook computer. She enters the correct password for her user account, but the system won't let her authenticate, claiming the wrong password has been entered. What's causing the problem?

- [x] She has turned Num Lock on causing numbers to be sent from the keyboard instead of letters.
- [ ] She has entered the wrong password too many times, causing Intruder Detection in Windows to lock the system.
- [ ] The Scroll Lock key has been pressed, locking all input from the keyboard.
- [ ] The keyboard must be replaced.
- [ ] The CPU is in power-save mode causing all login attempts to be denied.

Explanation

The most likely cause of this user's problem is that the Num Lock key sequence for the notebook system has been pressed causing the keyboard to send numbers in the place of letters. Turning Num Lock off should fix the problem. When Intruder Detection is enabled, no logon attempts will be allowed, even if the correct password is used.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_16]

Question 77: Correct

You're troubleshooting a malfunctioning notebook computer. Nothing appears on the LCD display when the system is powered on. When you connect an external monitor to the system, the Windows desktop is displayed properly on the monitor. What could be causing this problem? (Choose two.)

- [x] The display output has been redirected to the external monitor port using a Fn key.
- [ ] The built-in video card is malfunctioning.
- [ ] A new driver for the video board needs to be installed.
- [x] The LCD assembly is malfunctioning.
- [ ] The BIOS needs to be updated.

Explanation

If the display appears on an external monitor but not the built-in display, the problem could be a malfunctioning LCD assembly or it could be due to the display output being redirected to the external monitor port using a Fn key. You know that the video card is working properly if the video shows on an external monitor.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_17]

Question 78: Correct

All members of the Sales team use laptop computers while traveling to connect to the Internet. Each laptop has a built-in wireless network card that supports 802.11b/g/n. You have trained each user to be able to create new wireless connections in order to connect to wireless networks in airports and at hotels. You get a call from one user stating that her wireless connection no longer works. She has checked the wireless configuration and she knows it to be correct because other sales people at the same location are able to connect. What should you do first?

- Have her manually configure the wireless card to use only 802.11b.
- Have her update the drivers for the wireless card.
- Have her verify that the wireless card's hardware switch is in the On position.
- Have her purchase a USB wireless card to use until you can check the problem yourself.

Explanation

Have the user verify that the wireless card's hardware switch is in the On position. Many built-in wireless cards can be turned off and on using a switch or button on the laptop case. Because this is a common problem and easy to check, you should do this first before trying other solutions.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_18]

Question 79: Correct

You're troubleshooting a malfunctioning notebook computer system. The user has indicated that the screen is always dark and difficult to read even while the system is plugged into a wall outlet. You checked the system and determined that the backlight isn't working. Which of the following could be the cause?

- The notebook battery is failing and needs to be replaced.
- The notebook's video adapter is malfunctioning.
- The LCD cutoff switch is stuck in the Off position.
- The wrong AC adapter is being used with the system.

Explanation

It's possible that the notebook's LCD cutoff switch is stuck in the off position. The cutoff switch is used to shut off the backlight (and sometimes the video display itself) when the notebook lid is closed. Press and release the cutoff switch to determine if this is actually the problem. Because the problem exists when plugged in, you know the problem is not related to the battery.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_19]

Question 80: Correct

You're troubleshooting a malfunctioning notebook computer. Nothing appears on the LED display when the system is powered on. What is the first thing you should do?

- (•) Plug in an external monitor
- ( ) Calibrate the battery
- ( ) Replace the motherboard
- ( ) Replace the video card

Explanation

If the built-in monitor isn't working, connect an external monitor to the laptop. If the display appears on an external monitor but not the built-in display, the problem could be a malfunctioning LED assembly or it could be due to the display output being redirected to the external monitor port using the Fn key. If you don't get a display on the internal or external monitor, you can assume that there is a problem with the video card. Repairing the video card typically means replacing the motherboard. You should calibrate the battery if your battery seems to be losing the ability to hold a charge or if the power drops shortly after starting to use it.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_21]

Question 81: Correct

You're troubleshooting a malfunctioning notebook computer system. The user has indicated that the LCD screen suddenly became dark and difficult to read while he was downloading a large file through his wireless network card while the system was plugged in at his desk. You've checked the system and determined that the backlight has stopped working. Which of the following could be the cause? (Choose two.)

- [ ] The wireless network card is emitting radio signals that interfere with the backlight; causing it to stop functioning.
- [x] The cold cathode fluorescent lamp has burned out and needs to be replaced.
- [ ] The extended download placed high demands on the system DC power; causing the BIOS to shut off the backlight.
- [x] The inverter in the LCD assembly has malfunctioned.

Explanation

The two main problems encountered with LCD backlights are a burned out CCFL or a malfunctioning inverter. It's also possible to have a power management setting that turns off the backlight to save power; however, it would only be applied if the system were running on battery.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_22]

Question 82: Correct

You're troubleshooting a malfunctioning LCD display on a notebook computer system. After confirming that the notebook is receiving AC power, you plug in an external monitor. The

external monitor does not display the output from the notebook after pressing the Fn key to toggle the display. Which of the following could be the cause?

- Failed video adapter
- Failed backlight
- Failed inverter
- Failed battery

Explanation

Because the output does not display on the internal or external monitor after using the Fn key, the most likely problem is related to the video card. If the external monitor shows the correct output, it is most likely a failed backlight or inverter. When the computer runs for only a short time after the battery has been charged or if the battery does not hold a charge, it is most likely a failed battery.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_23]

Question 83: Correct

Which of the following should you do if you cannot turn a laptop off?

- Disconnect the keyboard
- Unplug the AC power
- Unplug the AC power and remove the battery
- Remove the battery

Explanation

If you cannot turn a laptop off, all power should be removed from the unit, including AC and the battery. There is no need to disconnect the keyboard.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_24]

Question 84: Correct

A user in sales cannot get his laptop to display through a projector. He sees the screen output on the built-in display, but the video is not being seen on the projector. What should you do first?

- Replace the display
- Check the backlight setting
- Replace the video card
- Use the Fn key to redirect display to the external video port
- Add video RAM

Explanation

Toggle the display setting with the Fn key. Most laptops offer several display choices, such as: PC screen only, Second screen only, Duplicate (both screens), and Extend (both screens). The

most likely culprit in this scenario is that the display has been toggled to PC screen only, so choosing either of the other two settings should allow the user to see the display on the projector. Upgrading the video card, replacing the display, or checking the backlight settings are not necessary as the video shows properly on the internal display.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_25]

Question 85: Incorrect

Six months ago, you purchased a new laptop. Since then, you have noticed that the battery life has been steadily going down. When it was new, a full charge lasted about 3 hours. Now you are lucky to get 2 hours before the battery charge level drops below 5%. What should be your first step to correct this problem?

- Buy a new battery.
- ~~Clean the contacts on the battery.~~
- Replace the power meter chip on the battery.
- Calibrate the battery.

Explanation

If your battery seems to be losing the ability to hold a charge, or if the power drops shortly after starting to use it, you might need to recalibrate the battery. Over time, the power meter gets out of synch with the actual power that is left in the battery. Calibration resets the power meter so that the percentages are a more accurate reflection of the remaining charge. It is common for batteries to lose their ability to hold a charge over time. However, most batteries last between 1-3 years. You should only replace the battery after you determine that calibration will not correct the problem. You cannot replace the power meter chip in a battery; in fact, you should never disassemble a battery. Cleaning the contacts will have no effect.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm TRB NOTEBOOK_27]

Question 86: Incorrect

One of your users suspects that the battery in their notebook computer is failing. You test it by using a known good power adapter to plug it in long enough to receive a full charge. The battery reads that it is fully charged in Windows. You then disconnect the laptop from its power source and wait to see how long the battery lasts. The battery dies after only about 15 minutes.

What should you do to resolve to this problem?

- Assume the battery is failing and replace it.
- Configure the Power Scheme settings to minimize battery usage.
- ~~Put the battery in another notebook to verify that it's the battery that is failing.~~
- Calibrate the battery to synchronize the power meter to the actual charge capacity of the battery.

Explanation

Most notebook batteries only last 1 – 3 years. When they can't hold a charge for more than a few minutes, you can safely assume it's time to replace the battery.

References

LabSim for PC Pro, Section 8.4.

[pcpro2016_all_questions_en.exm LAPTRB_01]

Question 87: Correct

A panicked user comes to you at the support desk and asks you to come to his office because his notebook has no power. He's positive that his battery has completely failed because he came in this morning and there is no power at all to his laptop. He left it plugged in on his desk all night but it will not turn on. He has an important presentation to make in a couple of hours and insists that you bring a replacement battery.

What troubleshooting steps should you do before replacing the battery? (Select two.)

- [ ] Replacing the battery is the first troubleshooting step you should do.
- [ ] Transfer the notebook's hard drive to a new notebook.
- [x] Make sure the DC cord from the power adapter is plugged firmly into the notebook power connector.
- [ ] Replace the existing power adapter with a known good power adapter.
- [x] Make sure the AC cord is securely plugged into both the wall outlet and the power adapter.

Explanation

When a computer will not turn on, the first troubleshooting steps are always to make sure it is plugged in. In the case of a notebook computer there are two cords that have to be plugged in:

- The AC cord that plugs into the wall outlet and the power adapter
- The DC cord from the power adapter that plugs into the notebook power connector

If these cords are plugged in securely, but not providing power, the next step is to replace it with a known good power adapter.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm LAPTRB_02]

Question 88: Correct

A user recently used her notebook to make a presentation that required her to display her screen from a projector in the conference room. She is now back at her desk, her notebook is still on, but the display is blank.

What should you do first to try to restore the display?

- (•) Use the Fn keys to toggle the display output to the laptop monitor.
- ( ) Reboot the computer.
- ( ) Check for cracks in the bezel around the display to see if it has been damaged.
- ( ) Connect an external monitor to the laptop and use the Fn keys to toggle the display output to the external monitor.
- ( ) Repair the video card, which typically means replacing the motherboard.

Explanation

The first step to try to restore the display is to use the Fn keys to toggle the display output to the laptop monitor. It is very likely that the Fn keys were used to toggle the display output to the projector for the presentation and then not toggled back to the laptop monitor.

Rebooting the computer will probably restore the default display output, but is not the best first solution to try. The other steps might become necessary in some cases, but only after the easiest and likeliest solutions are tried.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm LAPTRB_03]

Question 89: Incorrect

A user complains that his notebook display has started to go dim intermittently. You suspect the backlight might need to be replaced but you want verify that the backlight is failing before you replace it.

What should you check before replacing the backlight?

- ○ Make sure the battery is still able to hold a charge.
- ○ Check for cracks in the power bundles that go from the laptop to the display.
- ○ Check the display inverter connections.
- ◉ ~~Make sure the power adapter cords are plugged in securely.~~
- ➡ ○ Make sure that the dimming isn't being caused by a power saving method that has been configured to conserve notebook power.

Explanation

It is possible that the configuration of the power saving method has been changed and is dimming the screen earlier than the user is accustomed to. You should first check to see if the power saving method is working as configured.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm LAPTRB_04]

Question 90: Correct

If a notebook computer is exhibiting symptoms that seem to indicate a malfunctioning keyboard, what troubleshooting steps can you take to determine if the keyboard needs to be replaced? (Select two.)

- ☐ Recalibrate the keyboard's pressure sensors.
- ☐ Use Device Manager to make sure the correct keyboard driver is installed and up to date.
- ➡ ☑ Connect an external keyboard.
- ➡ ☑ Check for special keyboard features that could be enabled that may cause some keys to perform alternate tasks.
- ☐ Check for cracks in the power bundles that go from the keyboard to the motherboard.

Explanation

Check to see if the user has inadvertently set a special notebook keyboard feature that alters the way certain keys work. For example, setting the NumLock feature may cause part of the keyboard to emulate 10-key functionality. If no special features have been set, you can connect an external keyboard to see if the malfunctioning keyboard symptoms go away. If they do, the laptop keyboard needs to be replaced.

None of the other troubleshooting options could be used to determine what is wrong with a

notebook keyboard.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm LAPTRB_05]

Question 91: Incorrect

If a notebook computer with an integrated wireless network adapter shows that there is no wireless network connection, what should you check first?

- Connect a cable to the Ethernet adapter to see if a wired connection is found.
- ~~Make sure the wireless access point is configured to automatically assign IP configurations.~~
- Make sure the switch that turns the wireless network card on and off is in the on position.
- Re-orient the wireless antennae until you get better reception.
- Verify the IP configuration settings are right for the wireless access point configuration.

Explanation

The quickest and easiest solution should be checked first. With wireless network cards on notebook computers, if the network card switch has been turned off, turning it back on is the easiest solution to try.

References

LabSim for PC Pro, Section 8.4.
[pcpro2016_all_questions_en.exm LAPTRB_06]

Question 92: Incorrect

You have a workstation running Windows 10, 64-bit edition. A local printer connected to a USB port is shared so that other users can print to that printer. Users running 32-bit versions of Windows report that they can't install the driver for the shared printer. Users running a 64-bit version of Windows do not have any problems. What could you do to fix this problem? (Select two.)

- [ ] Manually install the correct driver on each computer that is having a problem.
- [x] ~~Move the printer to a computer running a 32-bit operating system and share the printer.~~
- [x] ~~Configure one computer running a 32-bit operating system with the correct driver. Share the network printer and have all 32-bit computers connect to that computer.~~
- [ ] Configure the printer to run in 32-bit emulation mode.
- [ ] On your computer, add the x86 drivers.

Explanation

Each network host that wants to use the printer must have the correct printer driver installed. When you share a printer in Windows, the current printer driver is automatically delivered to clients that connect to the shared printer. If the client computers run a different version of Windows, you can add the necessary printer drivers to the printer object. Manually adding drivers to every client is also an option, but is not efficient as the drivers can be delivered automatically when the computers connect to the shared printer. Sharing the printer on a 32-bit operating system would require adding the drivers for 64-bit clients. There's no such thing as 32-bit emulation mode on printers.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_01]

Question 93: Correct

A user generates printouts consisting of several pages of seemingly random characters every time he prints to a network printer. The printer seems to work fine for all other users. What is the most likely cause of the problem?

- The network cable to the printer is defective
- The user's network settings are incorrect
- The printer is shared with insufficient network privileges
- The user is using an incorrect printer driver

Explanation

In this case, the problem is limited to the single user, so target that user's configuration. Several pages of seemingly random characters is a classic symptom of the use of a Postscript print driver on a non-Postscript printer. Switching to the correct driver will resolve the issue.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_02]

Question 94: Incorrect

A customer has called to complain that the colors in photos she has printed on the color inkjet printer your store sold her don't match the colors in the originals. Assuming the customer is using a Windows workstation, what should you do to resolve the issue? (Select two.)

- [ ] Download and install the latest printer drivers.
- [x] ~~Educate the customer on the limitations of inkjet printers.~~
- [x] Use the Color Management tab of the printer driver to calibrate the driver's color settings.
- [ ] Use Driver Rollback to restore an earlier version of the printer driver.
- [ ] Instruct the customer to upgrade to a color laser printer.
- [ ] Run the Windows FIXCOLR utility to automatically calibrate the driver's color settings.

Explanation

You should download and install the latest printer driver, then use the Color Management tab to adjust the driver's color settings. Many times, installing the latest driver alone will fix color issues. If not, then you can manually adjust the color settings until they match the original.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_03]

Question 95: Correct

Your system administrator shared a USB laser printer connected to your Windows 10 system so other users on the network can send jobs to it. A network user has sent a large job to the printer, but the print job has stalled. You try to delete the print job, but can't. Why can't you delete the print job?

- You do not have the Manage documents permission
- You do not have the Manage this printer permission
- You do not have the Manage network printers permission
- You do not have the Print permission

Explanation

In this case, you can't delete the print job because you don't have the Manage documents permission. Users who have the Manage documents permission can manage all documents in the queue (i.e., pause, resume, delete, or rearrange the order). Users with the Print permission can print using the printer and manage (delete) their own documents. Users with the Manage this printer permission can edit the printer properties and pause the printer, but cannot manage any documents waiting to be printed. The Manage network printers permission does not exist.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_04]

Question 96: Incorrect

You're troubleshooting an older laser printer that is creating 'accordion jams' where the paper is crumpled as it exits the printer moving into the output tray. What can you do to fix this problem?

- Replace the toner cartridge.
- ~~Use heavier paper.~~
- Install a maintenance kit.
- Replace the drum.
- Replace the fuser wires.

Explanation

You should install a maintenance kit. Accordion jams are usually caused by worn rollers. Replacement rollers are included in most maintenance kits. Replacing the cartridge, drum, or fuser wires would be needed to correct print quality problems.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_05]

Question 97: Correct

A dot matrix printer is printing faintly after replacing the print head. What should you do?

- Initialize the ribbon.
- Check the gap between the printer head and the paper.
- Install a maintenance kit.
- Check the toner levels.

Explanation

In this case, you should check the gap between the printer head and the paper. If the gap between the platen and the print head is too large, the printing could be faint because the pins are not firmly striking the ribbon and paper. Dot matrix printers do not use toner, but instead use

a ribbon. Ribbons should be replaced, not initialized, if the printer images become faint. Maintenance kits are replacement components, such as fuser wires, rollers, and toner drums, needed after about 20,000 pages of printing.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_06]

Question 98: Correct

For the past several days, the print jobs from the inkjet printer are missing colors and leaving gaps. What should you do to resolve the problem?

- Add additional memory to the printer.
- Check the gap between the printer head and the paper.
- Use the automatic print head cleaning feature.
- Recalibrate the printer's color profile.

Explanation

Use an inkjet's automatic cleaning feature if letters have missing lines and there are gaps. With inkjet printers, the nozzles sometimes become clogged, preventing ink from leaving the nozzles and reaching the paper.

On dot matrix printers, you should check the gap between the printer head and the paper to avoid printer images from becoming faint. Color profiles are typically created by the manufacturer, and correct problems when the printed colors don't match what you see on the screen. Add memory to a printer if the end of a printed page is missing.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_07]

Question 99: Correct

A user has created a complex spreadsheet on her workstation containing many graphs and charts. She sent the document to an older network laser printer that is shared by everyone in her department. When she picked up the output only the top half of each page was printed and the bottom half was blank. What should you do?

- Instruct her to not create such complex print jobs.
- Ask the network administrator to increase the speed of the network link in her department.
- Update the printer driver on her workstation.
- Install additional memory in the printer.
- Install additional memory in her workstation.

Explanation

If only part of a page is printed on a laser printer (and the rest of the page is blank), you most likely need to add memory in the printer. This is especially true if it happens when complex graphical documents are printed, but printing works correctly with text-only documents. In rare circumstances, updating the printer driver could also fix the issue, but this is unlikely. The speed of the network link does not affect the quality of the printer output.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_NEW_01]

Question 100: Correct

After removing the printed paper from your laser printer, the toner smudges and can be wiped off in places. Which of the following is the most likely problem?

- Primary corona
- Secondary corona
- Fuser rollers
- Print drum

Explanation

Because the fuser rollers heat and press the entire paper, dirty fuser rollers would be the most likely problem. The other components do not touch the paper directly.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_09]

Question 101: Correct

Your laser printer prints a vertical black line on every page. You change the toner cartridge but the problem does not go away. What is the most likely problem?

- The paper is poor quality.
- A corona wire is dirty.
- The photosensitive drum.
- The fuser assembly is damaged.

Explanation

If a corona wire is dirty, it might not create a uniform charge. As a result, the toner might not be attracted correctly to the photosensitive drum or paper. A vertical stripe is a typical symptom of this problem. Be careful when cleaning a corona wire because they are delicate.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_10]

Question 102: Incorrect

Which of the following is a symptom of a dirty drum or roller in a laser printer?

- ~~Smudges on the print job.~~
- Lines or splotches repeated at regular intervals on the print job.
- A faint image on the print job.
- A vertical black or white stripe on the print job.

Explanation

A dirty drum or roller can create lines or splotches at regular intervals on the print job.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_11]

Question 103: Correct

Which of the following problems is unique to dot matrix printers?

- The print head is clogged with dry ink.
- The corona wire is broken.
- Paper scraps are caught in the feed mechanism.
- The printer is out of toner.

Explanation

Dot matrix printers that use perforated, tractor feed paper commonly get paper scraps caught in the tractor feed mechanism. You will need to remove the paper scraps for the printer to resume normal operation. Print heads are used on inkjet printers, and often get clogged with dried ink. Toner and corona wires are used in laser printers.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_12]

Question 104: Incorrect

Which of the following paper types should not be used in inkjet printers?

- Multi-purpose paper
- ~~Paper that is not specifically marked "for inkjet printers."~~
- Any colored paper
- Very glossy paper

Explanation

Early inkjet printers required paper specially manufactured for inkjet printers. Now, inkjet printer paper is not necessary. However, you still need to consider factors such as how the paper absorbs the ink. Very glossy paper that does not absorb ink very well can be problematic.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_13]

Question 105: Incorrect

When you print from your laser printer, the paper contains faint images from previous printouts. Which components should you check? (Select two.)

- Secondary corona wire
- Discharge lamp
- Primary corona wire
- Rubber scraper
- ~~Transfer roller~~

Explanation

After a page is printed, a rubber scraper removes any remaining toner from the OPC drum. A discharge lamp removes any remaining electrical charge. If images from previous print jobs show up on the page, check these two components. The primary corona charges the drum prior to writing the image. The secondary corona charges the paper to attract the toner. If these two components are faulty, the current image might have streaks or missing parts. If the toner is not sticking to the paper, check the transfer roller.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_14]

Question 106: Correct

You replaced the print cartridge on an inkjet printer. What should you do next?

- Send the printer to the factory for a realignment.
- Replace the fuser roller assembly.
- Calibrate the printer.
- Replace the ribbon as well.

Explanation

After replacing print cartridges, perform a calibration. The calibration uses the self test to check the printed image and make minor adjustments automatically. Calibration will help avoid blurry text, misalignment (jagged lines), or incorrect colors. Dot matrix printers use a ribbon, and should be replaced if printer images become faint. Fuser roller assemblies are found in laser printers, and should be replaced or cleaned if there are lines or splotches at regular intervals on the print job.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_15]

Question 107: Incorrect

You have just installed a maintenance kit in your laser printer. What should you do next?

- Check the gap between the print head and the paper.
- Reset the page count.
- ~~Use the automatic cleaning feature.~~
- Reinstall the print drivers.

Explanation

After installing a maintenance kit in your laser printer, you should reset the page count. The parts in a maintenance kit are replaced on a regular basis (usually after about 20,000 pages of printing).On dot matrix printers, you should check the gap between the printer head and the paper to avoid printer images become faint. Use an inkjet's automatic cleaning feature if letters have missing lines. The print drivers may need reinstallation if they become corrupt.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_17]

Question 108: Incorrect

Which of the following conditions would typically result in replacing the drum on a laser printer?

- Garbage characters on the page
- ~~Ghost images on the page~~
- Blank page
- Spots at regular intervals on the page

Explanation

Spots at regular intervals on the page typically mean a faulty drum. Blank pages are caused by no toner or a faulty primary corona. Ghost images are caused by a faulty scraper blade or discharge lamp. Garbage characters are caused by using the wrong print driver.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_19]

Question 109: Correct

You have a laser printer that has worked fine until today. Now whenever anything is printed, only blank pages come out. Which part are you most likely to replace?

- Drum
- Transfer corona
- Static eliminator strip
- Discharge lamp

Explanation

A blank page from a laser printer could be caused by a completely empty toner cartridge (which is rare), or a faulty transfer corona. The transfer corona charges the paper to attract the toner. Without a charge, the toner will not stick to the paper. The discharge lamp removes any charge from the drum prior to writing a new image. A faulty discharge lamp will show ghosted images from previous printouts. The static eliminator strip removes the static charge from the paper after the image has been applied to the paper. A faulty drum will result in spots or stripes on the printout.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_20]

Question 110: Correct

You're conducting scheduled maintenance on a laser printer. You notice that there is a build-up of excess toner inside the interior of the printer. Which of the following is the proper way to remove it?

- Blow it out with compressed air.
- Sweep it out with a small broom.
- Use an anti-static vacuum.
- Wipe it out with a wet, soapy rag using a mild detergent.

Explanation

You should use an anti-static vacuum to remove excess toner from the interior of a laser printer. You should avoid using removal methods that will disperse the toner into the air; such as

compressed air or a broom.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_21]

Question 111: Correct

You are testing a printer you just installed, so you use the operator panel on the printer to print a test page. Later, you use the printer properties on your computer to print a test page. Instead of a normal test page, you receive several pages with garbled characters on them. What is the most likely cause of the problem?

- (selected) Wrong print driver
- A problem with the printer power supply or the power cable
- Bad printer memory
- Wrong toner cartridge

Explanation

When you print a test page from your computer and it does not work properly, you most likely have an incorrect print driver or a printer cable that is not fastened properly. Memory or power supply problems are rare in printers. You would probably not be able to install an incorrect toner cartridge into the printer.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_22]

Question 112: Correct

A departmental manager complains that print jobs are not being printed on the private laser printer in her office. The printer connects directly to her workstation with a USB cable. When you inspect the printer, you see no output displayed on the printer's LCD control panel. You notice that the printer's power switch is set to the ON position and that the printer is plugged into the wall outlet. What should you do?

- Run a printer self-test.
- Replace the fuser assembly.
- Install print server hardware in the printer and configure the user's workstation to send print jobs to it over the network.
- (selected) Replace the printer's power supply.

Explanation

The fact that the printer is plugged in and powered on, but has nothing displayed on its built-in control panel indicates that its power supply has probably failed. This can be verified by listening for fan noises or feeling for heat being radiated by the printer. If the power supply is bad, then running a self test, connecting the printer to the network, or replacing the fuser assembly will not resolve the issue.

References

LabSim for PC Pro, Section 7.6.
[pcpro2016_all_questions_en.exm TRB_PRINTER_NEW_02]

Question 113: Correct

Since it has no moving parts, a CPU will usually work properly for several years. Which of the

following is a common factor that might cause a CPU to fail prematurely?

- High CPU usage
- Electrostatic discharge (ESD)
- Magnetic field
- Unsupported memory modules
- Electromagnetic interference

Explanation

Electrostatic discharge is the only factor, from among the possible choices, that can cause a CPU to fail prematurely. Be careful while working on your CPU to avoid ESD by working on a static mat grounded with a wrist strap.

References

LabSim for PC Pro, Section 3.6.
[pcpro2016_all_questions_en.exm PROC_TRB_01]

Question 114: Correct

To improve system performance, you have configured a motherboard to run with a higher multiplier than what the CPU is specified to use.

What is this practice called?

Explanation

Configuring a motherboard to run with a higher multiplier than what the CPU is specified to use is called *overclocking*.

References

LabSim for PC Pro, Section 3.6.
[pcpro2016_all_questions_en.exm PROC_TRB_02]

Question 115: Correct

To improve system performance, you have configured a motherboard to run with a higher multiplier than what the CPU is specified to use. Since doing this, the system has become unstable and crashes frequently.

What should you do to restore system stability?

- Replace the CMOS battery to make sure the real-time clock has the correct time.
- Make sure the BIOS firmware supports the overclocking settings you're using.
- Back off on the overclocking settings until the system runs in a stable manner.
- Make sure the switch on the power supply is set to the correct voltage.

Explanation

Configuring a motherboard to run with a higher multiplier than what the CPU is specified to use is called *overclocking*. If the system becomes unstable and crashes frequently, the multiplier may be set higher than the CPU can handle. To resolve this, lower the multiplier until the system becomes stable again.

The real-time clock on the motherboard is not a factor in this scenario and has no role in overclocking. If the power supply is set to the wrong voltage, system components can be

damaged but not cause the behavior described in the scenario. BIOS firmware is not factor in overclocking issues.

References

LabSim for PC Pro, Section 3.6.
[pcpro2016_all_questions_en.exm PROC_TRB_03]

Question 116: Correct

You have just upgraded the CPU on your computer. You consulted the motherboard documentation to make sure the CPU is compatible with the motherboard. You turned the system on and it locks up shortly after startup.

Which steps should you take first? (Select two.)

- [ ] Make sure the power cord is plugged in and the power supply switch is in the on position.
- [x] Make sure the CPU is seated and oriented properly, and locked into the socket.
- [ ] Replace the CMOS battery.
- [ ] Test the power supply using a multimeter.
- [x] Look for something that could be causing the new CPU to overheat.

Explanation

The most common issues that occur when a new CPU has been installed are

1. The system locks up because it gets too hot. You should check for the following:

- The heatsink and fan are not placed correctly or are in poor condition
- Thermal paste or the thermal pad have not been used between the processor and the heatsink
- The heatsink is not firmly attached to the processor

2. The system locks up because the CPU is not properly seated or is oriented incorrectly.

References

LabSim for PC Pro, Section 3.6.
[pcpro2016_all_questions_en.exm PROC_TRB_04]

Question 117: Incorrect

After working without problems for a couple years, your computer has begun to lock up. You suspect that it is a thermal issue but you can't find any component that is not functioning correctly. You have not replaced the CPU or installed any new devices. The CPU cooling fan and the power supply fan are working properly. The lock-ups are happening with increasing frequency.

Which of the following is a common condition that might explain these symptoms?

- ( ) The BIOS has never been flashed and has gotten more and more out of date.
- ( ) An accumulation of dust has gradually built up.
- (•) ~~The internal temperature sensor is beginning to malfunction intermittently.~~
- ( ) The power supply has been switched to the wrong voltage setting.

Explanation

Over time, an accumulation of dust can gradually build up and cause significant overheating by

constricting airflow through the system case. Vents holes and heatsink fins can become clogged with dust, which prevent the dissipation of heat. Remove the dust with compressed air or an anti-static vacuum.

The BIOS should be flashed when firmware updates are available but failing to do this will not lead to system overheating. Switching the power supply to the wrong voltage can damage system components, but this would not lead to the system locking up more frequently over time--the damage would happen immediately. A malfunctioning heat monitor could cause the system to lock up, but the frequency is likely to be intermittent, not consistently increasing in frequency.

References

LabSim for PC Pro, Section 3.6.
[pcpro2016_all_questions_en.exm PROC_TRB_05]

Question 118: Correct

Your system crashes at various times, sometimes on startup, sometimes when running a software application, sometime when a certain group of applications is running. You suspect a malfunctioning CPU but none of the common issues seem to be present. You have not configured overclocking. There is no overheating. The CPU is seated correctly and locked into its socket.

What can you do to definitively determine if the CPU is causing the system crashes?

- (●) Replace the suspect CPU with a known good CPU of the same make and model.
- ( ) Throttle the processor to reduce the operating frequency and minimize power consumption.
- ( ) Switch to a comparable CPU from a different manufacturer.
- ( ) Downgrade to a CPU that has fewer cores and is less demanding on your system resources.

Explanation

Replacing the suspect CPU with a known good CPU of the same make and model is the best way to determine if the CPU is the problem. There is only one variable in this test. If the system stops crashing after the CPU was replaced, it is safe to assume that the suspect CPU was not functioning properly.

Any other course of action introduces more variables to the environment. If intermittent problems continue to occur, you are no closer to finding the cause.

References

LabSim for PC Pro, Section 3.6.
[pcpro2016_all_questions_en.exm PROC_TRB_06]

Question 119: Incorrect

What are two major disadvantages to overclocking the CPU? (Select two.)

- [x] Increased heat output
- [x] ~~Decreased compatibility with other devices~~
- [ ] Increased memory requirements
- [ ] Decreased performance
- [ ] Voided warranty

Explanation

Overclocking the CPU increases heat output and can compromise the CPU's warranty. Overclocking increases (not decreases) performance. Memory settings can be adjusted to match overclocking, but memory requirements are not affected.

References

LabSim for PC Pro, Section 3.6.
[pcpro2016_all_questions_en.exm OVERCLOCKING_01]

Question 120: Correct

Lately your computer is spontaneously shutting down after only a few minutes of use. What is the most likely cause?

- ○ Bad network card
- ○ Failed UPS
- ➡ ◉ Overheated CPU
- ○ Failing hard drive

Explanation

An overheated CPU will cause a spontaneous reboot or intermittent system crashes. A spontaneous reboot can also be caused by a bad power supply or device driver. A clicking noise when reading or writing data from the hard disk is an early sign of a failing drive. A failed UPS (or failed battery in the UPS) would result in a complete loss of power to the computer if the outlet (or wall) power was lost. A system notification would indicate whether there is a failed drive, as it would not allow reading or writing.

References

LabSim for PC Pro, Section 3.6.
[pcpro2016_all_questions_en.exm TRB CPU_01]

Question 121: Correct

Lately your computer is spontaneously shutting down after only a few minutes of use. What is the most likely cause? (Select two.)

- ☐ Failed UPS
- ☐ Failing system RAM
- ➡ ☑ Cooling fans clogged with dust
- ➡ ☑ Overheated CPU
- ☐ Failing hard drive

Explanation

An overheated CPU will cause a spontaneous reboot or intermittent system crashes. A spontaneous reboot can also be caused by a bad power supply or device driver. A clicking noise when reading or writing data from the hard disk is an early sign of a failing drive. A failed UPS (or failed battery in the UPS) would result in a complete loss of power to the computer if the outlet (or wall) power was lost. A system notification would indicate whether there is a failed drive, as it would not allow reading or writing.

References

LabSim for PC Pro, Section 3.6.
[pcpro2016_all_questions_en.exm TRB CPU_03]

Question 122: Correct

You have just finished upgrading the CPU in your desktop system. After running the system for about 15 minutes, the system spontaneously shuts down. What should you do first to troubleshoot the problem? (Select two.)

- [ ] Replace the power supply.
- [x] Check the thermal shutdown threshold in the BIOS.
- [x] Check the CPU fan power.
- [ ] Check the power supply voltage switch.
- [ ] Remove any unneeded components and run the system.

Explanation

Because you have just replaced the processor, the most likely cause of the problem is related to the CPU. System lockups and restarts can be caused by an overheated processor. Make sure the CPU fan is running, and that you have used thermal paste between the CPU and the heat sink. Also check to see what the thermal shutdown rating is for the new CPU and verify that the thermal shutdown threshold is set accordingly in the BIOS.

References

LabSim for PC Pro, Section 3.6.
[pcpro2016_all_questions_en.exm TRB CPU_04]

Question 123: Correct

Lately your computer is spontaneously rebooting and freezing. What is the most likely cause?

- ( ) Failed UPS
- ( ) Bad network card
- ( ) Failing drive
- (•) Overheated CPU

Explanation

An overheated CPU will cause a spontaneous reboot or intermittent system crashes. A spontaneous reboot can also be caused by a bad power supply or device driver. A clicking noise when reading or writing data from the hard disk is an early sign of a failing drive. A failed UPS (or failed battery in the UPS) would result in a complete loss of power to the computer if the outlet (or wall) power was lost. A system notification would indicate whether there is a failed drive, as it would be not allow reading or writing.

References

LabSim for PC Pro, Section 3.6.
[pcpro2016_all_questions_en.exm TRB CPU_05]

Question 124: Correct

A customer has brought a computer in to be repaired. He said he thinks that the sound card has stopped working because no audio is produced when music, video, or DVDs are played.

Which troubleshooting step should you take first? (Select two.)

- [ ] Replace the sound card with a known-good spare.
- [x]

- [ ] Verify that the speakers are plugged into the correct jack and are powered on.
- [ ] Verify that no IRQ or I/O port address conflicts exist between the card and other devices in the system.
- [x] Verify that the volume isn't muted.
- [ ] Download and install the latest sound card drivers.

Explanation

You should first verify that the speakers are plugged in correctly and powered on. You should also verify that the volume isn't muted in the operating system.

Before investigating more complex possibilities, you should always check the obvious first when troubleshooting computer problems. The other actions might need to be performed if checking the obvious solutions does not correct the problem.

References

LabSim for PC Pro, Section 3.13.
[pcpro2016_all_questions_en.exm PC16_AUDIO_TRB_01]

Question 125: Correct

The PCI sound card in your computer stopped working. You decided to use the motherboard's integrated sound until you can replace the PCI sound card and powering on the computer, you have no sound and the built-in sound card does not show up in Device Manager.

Which should you do to solve the issue?

- ( ) Enable the sound card in Device Manager.
- ( ) Update the drivers for the device.
- ( ) Update the necessary audio codecs.
- (•) Edit the CMOS settings and enable the onboard sound.

Explanation

When installing dedicated expansion card, you will typically disable the onboard device so that only the device you want to use shows in Device Manager. To make the onboard device detectable to Windows, enable the device in the CMOS settings.

You cannot update the device drivers or enable the device until Windows can detect the device and it appears in Device Manager. An audio codec is a file format for saving audio files. Sound cards require codecs to play sound files; however, the sound card must be properly configured before a codec can be used.

References

LabSim for PC Pro, Section 3.13.
[pcpro2016_all_questions_en.exm PC16_AUDIO_TRB_02]

Question 126: Correct

Question 127: Incorrect

You place a new disc in an optical drive, and then double-click the drive in the operating system's file browser interface. An error message appears stating that the drive is not accessible. What should you do?

- (•) ~~Eject the disc. Make sure it is not upside down. Then try again.~~
- ( ) Wait. Then try again.

- ◯ Eject the disc. Then replace the disc and try again.
- ◯ Try to repeat the error with another disc.

Explanation

It usually takes a few seconds for an optical drive to recognize a recently inserted disc and spin up to a proper speed. When troubleshooting a problem, try the easiest, most likely fix first. If after waiting for the disc to spin you still cannot read from it, try cleaning the disc. If the clean disk cannot be read, try inserting a different disc in the drive. If the second disc can be read, the problem might be that the first disc is unreadable. Use the first disc on another computer. If it cannot be read on either computer, the problem is likely with the disc itself.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm TRB CD DVD]

Question 128: Correct

You have just finished upgrading the 250 W power supply in your desktop computer to a 450 W power supply. Now the BIOS doesn't recognize one of the hard disk drives in the system during POST. What should you do?

- ◯ Manually enter the hard disk parameters in the BIOS.
- ◯ Reconfigure the hard disk to use the higher-wattage power supply using jumpers on the drive.
- ◯ Use the switch on the power supply to switch from 110 to 220 volts.
- ◯ Replace the power supply.
- ➡ ◉ Make sure that the hard disk is connected to the power supply.

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.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm TRB HARD DISK_01]

Question 129: Incorrect

When you try to read a particular DVD-R disc that was burned in a different computer, you receive an error message. Other DVD discs work fine in your drive. Which of the following is the most likely problem?

- ◯ The drive spins too fast for the media.
- ◉ ~~The disc was created in a computer that uses different regional settings.~~
- ◯ Your drive's laser is misaligned.
- ➡ ◯ The disc is dirty or scratched.

Explanation

If the problem occurs with only one disc, the problem is likely with the disc itself. Make sure the disc is clean, and that the drive supports the disc format. If other discs are working just fine, then the laser is probably not misaligned and the disc is probably not spinning too fast.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm TRB DVD-R_01]

Question 130: Correct

You have just finished installing a new SATA hard disk in your computer. Now your SATA DVD drive won't work. What should you do first? (Select two.)

- [ ] Set the DVD drive to Slave and the hard disk to Master.
- [x] Make sure that the DVD SATA cable is connected.
- [ ] Remove the hard disk.
- [ ] Replace the DVD drive.
- [x] Make sure that the DVD power cable is connected.
- [ ] Try the DVD drive in another system.

Explanation

The first thing to check would be the simple and obvious things. Make sure that the cable connecting the DVD drive is secure. It is possible that during the installation of the hard disk that the cable might have come loose. All of the other choices would involve significantly more work. Master and Slave settings are not used on SATA devices. Moving the DVD drive to another system might make it start working, but you should verify the current configuration before trying that. Replacing the DVD drive should only be done after you verify that it is not working correctly.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm TRB SATA_03]

Question 131: Correct

Due to a blackout, power is no longer coming from the wall outlet and your computer is now off. You do not have a UPS and you need to remove a disc out of the DVD drive. What is the easiest method for retrieving the disc?

- ( ) Add a UPS between the wall outlet and the computer.
- ( ) Remove the drive and carefully pry open the tray.
- ( ) Press the drive eject button while pressing the computer's restart button.
- (•) Push an unbent paper clip into the hole on the front of the drive.

Explanation

Optical drives have an emergency eject hole. To open the disc tray when the drive does not have power, push a thin, rigid object (such as an unbent paper clip) into the hole to open the disc tray. Adding a UPS to the computer may provide enough power to eject the disc, but is not the easiest method. Prying the tray open will most likely damage the drive. Pressing the eject button on the drive and the restart button on the machine will not eject the disc.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm TRB STUCK DVD]

Question 132: Correct

Your computer currently runs Windows 10 Professional edition. You want to create a RAID 10

array using four newly-installed SATA disks. When you go to Disk Management, the option to create the RAID 10 array is not available. What should you do?

- Upgrade to Windows 10 Enterprise edition.
- Upgrade the disks to dynamic disks.
- Create a simple volume first, then add the remaining disks to the volume.
- Install an add-on RAID controller.

Explanation

Windows 10 desktop operating systems support creating RAID 0 and RAID 1 arrays in Disk Management, but do not support configuring RAID 5 or RAID 10. To use RAID 10 on a client computer, you will need to use a RAID controller installed into an expansion slot or integrated into the motherboard.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm TRB RAID 10_02]

Question 133: Incorrect

You have an existing computer running Windows 10 Enterprise. You want to configure a RAID 5 array in the computer. You install three new SATA drives, then use the RAID controller integrated into the motherboard to define a RAID 5 array using them. When you boot the computer, Windows does not show the logical RAID drive you just created. What should you do?

- In the BIOS, change the SATA disk mode to AHCI.
- Reconfigure the drives into a RAID 0 or RAID 1 array.
- Install the drivers for the motherboard RAID controller.
- ~~In the BIOS, change the SATA disk mode to RAID.~~

Explanation

You must install the RAID driver so that Windows recognizes arrays created by the motherboard RAID utility. Without the driver, Windows will not be able to see the logical drive defined by the array. When you define the array, you configure the BIOS to use RAID as the SATA type. If you had not completed this step, you would not be able to run the RAID configuration utility. Use AHCI to configure SATA drives to support hot-swapping.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm TRB RAID 5_02]

Question 134: Correct

You have physically installed a new hard disk drive in your computer and configured the disk in the BIOS using the CMOS setup program. You try to access the hard disk drive in Windows Explorer, but the drive is not displayed. Which utility will you most likely use to solve the problem?

- Disk Management
- sfc
- chkdsk
- format

Explanation

After physically installing a hard disk drive and configuring it in the CMOS, you need to partition the disk and format it with a file system using Disk Management. You can use the format command to format the disk, but it has to be partitioned first. The chkdsk command is used to scan the surface of a disk and locate bad sectors or other disk problems. The sfc command is used to verify the integrity of your Windows system files.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm TRB HARD DISK_02]

Question 135: Correct

You have a computer where a removable disk drive has been formatted with NTFS. You want the drive to use FAT32 to be compatible with more operating systems. The drive is currently configured using drive letter D:. What should you do?

- Back up the data on the D: drive. Run convert.exe.
- Upgrade the disk to a dynamic disk.
- Back up the data on the D: drive. Run format /fs:NTFS.
- Back up the data on the D: drive. Reformat the D: drive using FAT32. Restore the data.

Explanation

The only way to go from NTFS to FAT32 is to reformat the drive. Because reformatting destroys all data, you should back up the drive before formatting, then restore the data after formatting the drive.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm CONVERT NTFS TO FAT32]

Question 136: Incorrect

You have a computer running Windows 10 Home and need to access the contents of a flash drive. The flash drive has been formatted with the exFAT file system. You want to read the flash drive on your computer as quickly as possible with the least amount of effort. What should you do?

- Install the latest Windows 10 service pack.
- Install an exFAT reader application on your computer.
- ~~Run convert.exe on the flash drive to convert it to FAT32 instead of exFAT.~~
- Upgrade the computer to Windows 10 Professional.
- Do nothing. Windows 10 can natively access exFAT file systems.

Explanation

exFAT is supported in Windows Vista SP1 and later. While you can use convert.exe to change the file system from FAT32 to NTFS, you cannot change it from exFAT to FAT32.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm FORMAT FLASH DRIVE]

Question 137: Correct

Which of the following utilities would you use to correct cross-linked clusters within the file system on a Windows workstation?

- DiskScan
- attrib
- chkdsk
- fdisk

Explanation

Use the chkdsk utility to check the disk for errors and repair them. You can use fdisk to create and delete partitions on older versions of Windows. Use attrib to toggle attributes on individual files.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm TRB CHKDSK]

Question 138: Correct

Which term refers to a situation where two files try to claim the same cluster on the hard disk?

- Lost clusters
- S.M.A.R.T. error
- Corrupt MBR
- Cross-linked clusters

Explanation

A cross-linked file error occurs when two files try to claim the same cluster. A lost cluster occurs when no file claims a cluster that has data within it. A corrupt MBR occurs when the master boot record on a system drive is corrupted. A S.M.A.R.T. error occurs when a drive experiences a mechanical error.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm TRB CLUSTERS]

Question 139: Correct

Lately you hear a clicking noise when reading or writing data from the hard disk. What is the most likely cause of the clicking?

- Failed UPS
- Bad memory
- Overheated CPU
- Failing hard drive

Explanation

A clicking noise when reading or writing data from the hard disk is an early sign of a failing drive. As a precaution, you should move data from the drive as soon as possible in this case. An overheated CPU or bad power supply will cause a spontaneous reboot, not a clicking. A system notification would indicate whether there is a failed drive, as it would not allow reading or

writing. A failed UPS (or failed battery in the UPS) would result in a complete loss of power to the computer if the outlet (or wall) power was lost.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm TRB HARD DISK_03]

Question 140: Incorrect

A user reports that they are unable to access their Firewire drive after moving the PC from beneath the desk to the top of the desk. What is the most likely cause of this problem?

- IRQ conflict
- An external power source must be added
- The Firewire cable is loose
- Incorrect FireWire driver
- ~~Card is not properly seated~~

Explanation

In moving the computer, it is likely that one of the connectors on the Firewire cable came loose and is no longer properly seated.

None of the other options would have been affected in just moving the computer. FireWire does not use IRQs for configuration. Simply moving the computer such a short distance would not require adding an external power supply if it wasn't needed before. Moving the computer does not change drivers used for devices.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm TRB FIREWIRE]

Question 141: Incorrect

One day while trying to start your Windows 10 system, you see the following error displayed:
Could not read from the selected boot disk. Check boot path and disk hardware.

Which of the following will most likely fix the problem?

- Boot into the recovery environment and run the bootrec /rebuildbcd command.
- ~~Boot into the recovery console and copy the NTLDR file to the boot volume.~~
- Boot into Safe Mode and restore to a Restore Point.
- Boot into the recovery console and run the bootcfg /rebuild command.
- Boot into the recovery console and run the fixmbr command on the boot volume.

Explanation

This error message is generated when the system cannot find the partition specified in the BCD database where the operating system files are located. For example, the database might be pointing to the C: drive for the operating system files, but that drive does not exist. To fix this problem, boot into the recovery environment and then run the **bootrec /rebuildbcd** command to rebuild the boot loader database with a list of valid operating system locations.

You will not be able to boot into Safe Mode because the operating system files have not yet been loaded. The fixmbr and bootcfg commands were used on older versions of Windows.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm TRB DISK STORAGE TOOLS_01]

Question 142: Incorrect

After installing a new SSD drive in your system, you determine that TRIM functionality has not been enabled on the drive by the Windows operating system. You need to manually turn TRIM on. Given that the volume on the drive has been assigned a drive letter of E:, which command should you use at the command prompt to do this?

- ~~bootrec /rebuildbcd~~
- fsutil behavior query DisableDeleteNotify
- fsutil behavior set DisableDeleteNotify 0
- chkdsk E: /R

Explanation

If it is disabled, you can manually enable TRIM on an SSD drive by entering **fsutil behavior set DisableDeleteNotify 0**.

The fsutil behavior query DisableDeleteNotify can be used to detect whether TRIM is enabled, but it doesn't actually turn it on. The chkdsk e: /R command will check the E: drive for bad sectors and try to recover readable data. The bootrec /rebuildbcd command is used to rebuild the boot configuration data.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm TRB DISK STORAGE TOOLS_02]

Question 143: Correct

You have physically installed a new hard disk drive in your computer, configured the disk in the BIOS using the CMOS setup program, and partitioned the disk. You try to access the hard disk drive in Windows Explorer, but get an error message. Which utility will you most likely use to solve the problem?

- fdisk
- sfc
- format
- chkdsk

Explanation

After physically installing a hard disk drive, configuring the CMOS, and partitioning the disk, you need to format it with a file system. You can use the format command to format the disk. You use fdisk to create partitions. The chkdsk command is used to scan the surface of a disk and locate bad sectors or other disk problems. The sfc command is used to verify the integrity of your Windows system files.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm TRB HARD DISK_06]

Question 144: Correct

You have a hard disk that has a single primary partition and has been assigned D: as the drive letter. Which tool would you use to configure the drive to use the FAT32 file system?

- convert

- msconfig
- format
- chkdsk
- fdisk

Explanation

Use the format command to format the drive with the FAT32 file system. Use the convert command to convert a drive formatted with FAT32 to NTFS. You can use the fdisk command with older versions of Windows to create partitions. Use the chkdsk command to check the disk for lost clusters or cross-linked files. Run msconfig to configure Windows startup options.

References

LabSim for PC Pro, Section 5.10.
[pcpro2016_all_questions_en.exm TRB HARD DISK_07]

Question 145: Correct

Which tool would you use to grab and lift small objects?

- Crimper with interchangeable die
- Multimeter
- IC extractor
- 3-prong holder

Explanation

A 3-prong holder is a tweezer-like tool with three prongs used for grabbing and lifting small objects. A multimeter measures electrical properties such as voltage, amps, and resistance. An IC extractor is a tweezer-like tool, usually spring loaded in the open position, used to remove integrated circuit chips. A crimper with interchangeable die is a crimping tool with multiple dies for crimping different wiring configurations.

References

LabSim for PC Pro, Section 2.3.
[pcpro2016_all_questions_en.exm PC16 3-PRONG HOLDER]

Question 146: Correct

Which tool would you use to measure electrical properties such as voltage, amps, and resistance?

- Mini electronic combination wrench set
- IC extractor
- Multimeter
- Crimper with interchangeable die

Explanation

A multimeter measures electrical properties such as voltage, amps, and resistance. A mini electronic combination wrench set is a set of standard wrenches which are designed in size and thickness to be used on electronic components. An IC extractor is a tweezer-like tool, usually spring loaded in the open position, used to remove integrated circuit chips. A crimper with

interchangeable die is a crimping tool with multiple dies for crimping different wiring configurations.

References

LabSim for PC Pro, Section 2.3.
[pcpro2016_all_questions_en.exm PC 2016 MULTIMETER]

Question 147: Correct

A printer is behaving erratically and you suspect a faulty parallel port. Which tool can you use to test the parallel port?

- ➡ (●) Loopback plug
- ( ) Ammeter
- ( ) Multimeter
- ( ) Crimper

Explanation

A loopback plug allows an output signal to be returned as input. Loopback plugs are used to test serial and parallel ports. A crimper is used to crimp different wiring configurations. A multimeter measures electrical properties such as voltage, amps, and resistance. An ammeter is an instrument that measures the flow of electric current in a circuit.

References

LabSim for PC Pro, Section 2.3.
[pcpro2016_all_questions_en.exm PC 2016 LOOPBACK PLUGS 2]

Question 148: Correct

You suspect that the power supply in your desktop PC is failing. You want to use a multimeter to test the power supply. Which multimeter setting should you use?

- ( ) Watts
- ( ) AC volts
- ➡ (●) DC volts
- ( ) Ohms

Explanation

To measure the output of a power supply, measure DC voltage. A power supply converts AC voltage to DC voltage and supplies the DC power to computer components. AC is the voltage input for a power supply. To measure the input, measure the power from the wall socket. An ohm is a measure of resistance, used to check the properties of a resistor. Multimeters can measure amps, but do not measure watts.

References

LabSim for PC Pro, Section 2.3.
[pcpro2016_all_questions_en.exm PC 2016 MULTIMETER 2]

Question 149: Incorrect

Which of the following tools is specifically designed to test the DC voltage on a hard disk drive power connector?

- ( ) Cable tester
- ➡ ( ) Power supply tester

- ~~Multimeter~~
- Loopback plug

Explanation

A power supply tester is specifically designed to test DC voltage on most connectors coming from a PC power supply. A multimeter measures electrical properties such as voltage, amps, and resistance. A multimeter can also be used to test DC voltage on a Molex connector; however, it isn't a tool dedicated to this purpose. A cable tester verifies that a network can carry a signal from one end to the other, and that all wires within the connector are in their correct positions. A loopback plug lets you test a port for proper functionality. The loopback plug crosses the receive and transmit wires. Essentially, this lets the computer send a signal to itself.

References

LabSim for PC Pro, Section 2.3.
[pcpro2016_all_questions_en.exm PC 2016 PS TESTER]

Question 150: Correct

You've just installed a new video card in a user's Windows workstation. However, when you power the system on, the screen is displayed in 16 colors at 640x480 resolution. Which of the following will resolve this problem?

- Verify that the system UEFI firmware is compatible with the video card.
- Upgrade the monitor to one that supports a higher sync rate.
- Download and install the latest driver from the video card manufacturer's website.
- Reboot the system into Safe Mode.

Explanation

You should download the latest video driver from the manufacturer's Website. Because Windows didn't have the right driver, it used a generic VGA or SVGA driver instead.

References

LabSim for PC Pro, Section 4.5.
[pcpro2016_all_questions_en.exm TRB VIDEO CARD]

Question 151: Correct

Your monitor is displaying images using strange colors. Which of the following is a solution to this problem?

- Increase the amount of memory on the video card.
- Increase the color depth.
- Decrease the resolution.
- Increase the resolution.

Explanation

To solve color shift problems, you need to increase the color depth. The color depth controls the number of colors that can be displayed on the screen at a time. The actual colors that are used on the screen is determined by the color palette. The number of colors in the palette is determined by the color depth. If the color depth is low (such as 256 or 16,000), colors unavailable in the palette are shifted to the closest available color.

The screen resolution determines the size of the display area. Modern video adapters typically

have more than enough memory to display the full color pallet.

References

LabSim for PC Pro, Section 4.5.
[pcpro2016_all_questions_en.exm TRB DISPLAY_01]

Question 152: Correct

A customer complains that a recently purchased monitor no longer displays a picture. You verify that the monitor is powered on and that the video cable is securely fastened to the video port.

Which of the following actions should you take next?

- Check the monitor's brightness and contrast settings using the controls on the monitor.
- Return the monitor to the manufacturer.
- Unload then reload the video card's software driver.
- Open the computer and switch the video card to a different slot.

Explanation

It's not uncommon for a monitor's brightness or contrast controls to be accidentally turned down. Check the brightness and contrast on the monitor to see if it has any effect on the problem. When troubleshooting, be sure to check the obvious things first before taking more serious actions, such as returning the monitor to the manufacturer.

Moving the video card or reloading the video driver is unlikely to resolve the customer's problem in this scenario.

References

LabSim for PC Pro, Section 4.5.
[pcpro2016_all_questions_en.exm TRB DISPLAY_02]

Question 153: Incorrect

You recently upgraded a client's older workstation from Windows 7 to Windows 10. The client has called to complain that the interface is very slow. For example, after clicking on the Start button, the Start Menu slowly appears on the screen. How can you fix this problem without upgrading the hardware itself?

- Increase the color depth of the display.
- ~~Increase the hardware acceleration settings.~~
- Set the visual effects for best performance.
- Increase the resolution of the display.

Explanation

You need to adjust the visual effects for best performance. This will disable animation, shading, and fading effects used by Windows. Doing so reduces the load on the older hardware used in the client's systems and should increase the performance of the user interface. However, the best resolution to this problem would be to install a newer video adapter in the system.

Changing the resolution setting changes the size of text and windows in relation to the screen. Changing the color depth affects the number of colors that can be displayed at one time. Increasing the video acceleration settings increases the amount of processing done by the video card instead of the CPU.

References

LabSim for PC Pro, Section 4.5.

[pcpro2016_all_questions_en.exm TRB DISPLAY_04]

Question 154: Incorrect

You have purchased an LED monitor and connected it to the DVI-I port on your computer using a DVI-D cable. You configure the screen resolution to 1440 x 900 with 32-bit color. The display on the screen seems to be pixilated.

What should you do to correct the problem?

- Decrease the color depth to 24-bit.
- Replace the DVI-D cable with a DVI-I cable.
- ~~Change the screen resolution to 1600 X 1200.~~
- Replace the DVI-I cable with a DVI-A cable.
- Change the screen resolution to the native resolution of the monitor.

Explanation

LED and LCD monitors have a native display resolution. You should set the resolution of the video board to the native resolution of the monitor (whatever it might be). While it might be possible to set the resolution other than the native resolution, the images on the display will be distorted or pixelated.

DVI-D and DVI-I cables are compatible--both carry digital output to the monitor. DVI-A cables are incompatible with DVI-D or DVI-I hardware because they use an analog signal. Changing the color depth increases the number of colors that the monitor displays.

References

LabSim for PC Pro, Section 4.5.
[pcpro2016_all_questions_en.exm TRB LED]

Question 155: Correct

You have purchased an LED monitor and connected it to the HDMI port on your computer using an HDMI cable. You configure the screen resolution to 1280 x 1024 with 32-bit color. The geometry of the images displayed on the screen appear to be distorted.

What should you do to correct the problem?

- Increase the hardware acceleration setting on the video driver.
- Update the video driver to the latest version.
- Change the screen resolution to 1400 X 1050.
- Set the display resolution to the native resolution of the monitor.
- Use a DVI cable to connect the monitor instead of an HDMI cable.

Explanation

LED and LCD monitors have a native display resolution. You should set the resolution of the video board to the native resolution of the monitor (whatever it might be). While it might be possible to set the resolution other than the native resolution, the images on the display will be distorted or pixilated.

Changing connection types will not correct an incorrectly set display resolution, nor will increasing the hardware acceleration or installing an updated driver.

References

LabSim for PC Pro, Section 4.5.
[pcpro2016_all_questions_en.exm TRB DISTORTED GEOMETRY]

Question 156: Correct

You have purchased an LED monitor and connected it to the HDMI port on your computer using an HDMI cable. You configure the screen resolution to 1280 x 768 with 32-bit color. The images displayed on the screen appear to be overly large.

What should you do to correct the problem?

- Decrease the color depth of the video driver to 24-bit color.
- Increase the hardware acceleration setting on the video driver.
- Use a VGA cable to connect the monitor instead of an HDMI cable.
- Change the screen resolution to 1280 X 720.
- Set the display resolution to the native resolution of the monitor.

Explanation

LED and LCD monitors have a native display resolution. You should set the resolution of the video board to the native resolution of the monitor (whatever it might be). In this scenario, the display resolution has been set to a resolution that is much smaller than the native resolution, causing the images on the display to appear over-sized.

Changing connection types will not correct an incorrectly set display resolution, nor will increasing the hardware acceleration or installing an updated driver.

References

LabSim for PC Pro, Section 4.5.
[pcpro2016_all_questions_en.exm TRB OVERSIZED IMAGES]

Question 157: Correct

You've just purchased 10 new notebook systems for your users. You are concerned that users will leave the systems on for long periods of time, which could result in display burn-in.

What should you do to prevent this from happening?

- Increase the hardware acceleration setting on each system.
- Configure a screen saver on each system.
- Install a software utility on each system that is designed to fix stuck pixels.
- Configure each system to automatically power off after 5 minutes of inactivity.

Explanation

Burn-in can happen when the same image is displayed on the screen for an extended period of time. The best way to prevent this from happening is to configure a screen saver on each system.

Configuring the systems to automatically power off after 5 minutes of inactivity will also prevent burn-in, but will also make them very inconvenient to use. Increasing hardware acceleration settings will not prevent burn in from occurring. Installing a software utility on each system that is designed to fix stuck pixels can be used to repair a burnt-in display, but it will not prevent it from happening in the first place.

References

LabSim for PC Pro, Section 4.5.
[pcpro2016_all_questions_en.exm TRB BURN-IN]

Question 158: Incorrect

There are critical times when memory problems often manifest themselves.

Match the critical times on the left with the corresponding descriptions on the right of the causes of the memory problems.

This can require more memory and can cause problems if there is not enough memory at this time

✓ Software installation

Memory is not properly seated, missing, or the motherboard is defective

~~Hardware installation or removal~~ First boot of a new computer

Incompletely or improperly doing this can cause errors that appear to be memory related

~~First boot of a new computer~~ Hardware installation or removal

The memory is not compatible and was not installed and configured properly

✓ Memory upgrade

Explanation

At these critical times memory problems can manifest themselves:

- First boot of a new computer - memory is not properly seated, missing, or the motherboard is defective.
- After a memory upgrade - ensure that the memory is compatible and was installed and configured properly.
- After software installation - new software can require more memory and can cause problems if there is not enough memory for the software.
- After hardware installation or removal - incompletely or improperly installed hardware can cause errors that appear to be memory related.

References

LabSim for PC Pro, Section 3.9.
[pcpro2016_all_questions_en.exm CRITICAL TIMES-PB]

Question 159: Incorrect

You are attempting to boot a new system. The boot fails and the system sounds a beep code.

Which of the following describes the most likely cause of this error?

- ○ The new memory is not compatible and was not installed and configured properly.
- ◉ ~~The POST failed to recognize all of the memory.~~
- ○ Either a card or memory module is not seated, or the system includes unsupported memory.
- ➡ ○ Either no memory is installed or the memory was not detected.

Explanation

If the system boot fails and sounds a beep code, the most likely cause is that either no memory is installed or the memory was not detected.

If a card or memory module is not seated, or the system includes unsupported memory, the system will boots, but the display will remain blank. If POST fails to recognize all of the memory, the system will boot, but the memory count will be incorrect.

References

LabSim for PC Pro, Section 3.9.
[pcpro2016_all_questions_en.exm ERRORS]