

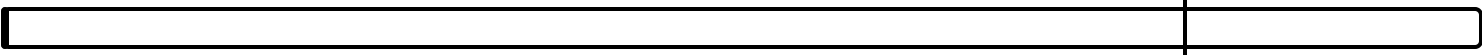
3.4.5 Practice Questions

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Score: 0%

Passing Score: 80%



Question 1.**× Incorrect**

When booting your workstation, you hear a series of audible beeps, and the system locks up.

What is the FIRST step you should take when troubleshooting this issue?

- ☐ Check for dust buildup inside the case.
- ☒ Check the motherboard documentation for POST errors.
- ☐ Replace the motherboard battery.
- ☐ Disconnect non-essential peripherals and try to reboot.

Explanation






Every time a workstation boots, it runs a Power-On Self Test (POST) to make sure that all of the basic hardware in the system is present and functioning correctly. If a problem is identified during POST, an error is generated, which can be a series of beeps. You need to check the motherboard documentation to interpret what the series of beeps represents.

If the motherboard battery fails, the system clock can lose time, or the BIOS/UEFI settings may reset to their defaults. However, this would not cause the series of beeps you are hearing when the system boots.

Dust buildup can cause overheating and other symptoms. However, this is not related to the POST error beeps you are hearing when the system boots.

Disconnecting non-essential peripherals and then rebooting is a troubleshooting step for resolving a Blue Screen of Death issue and is not related to POST error beeps.

References

-  3.4.1 Motherboard Troubleshooting
 -  3.4.2 Motherboard Troubleshooting Facts
 -  3.7.3 Memory Troubleshooting Facts
 -  3.10.1 Processor Troubleshooting
 -  3.10.2 Processor Troubleshooting Facts
- q_mb_trb_audible_beep_resolution_pp7.question.fex

Question 2.**✗ Incorrect**

While running a graphics editing program on your Windows workstation, a screen suddenly pops up with an error message warning. You note the error message, but the only way to continue working is to reboot your system.

What is this type of error screen called?

- ☐ POST
- ☐ HVAC
- ☐ BSoD
- ☐ SPoD

Explanation

You are experiencing a Blue Screen of Death (BSoD). This is a proprietary crash screen officially known as a stop error or blue screen error. A BSoD happens when the Windows OS encounters a fatal system error.

An SPoD (Spinning Pinwheel of Death) is the macOS equivalent of a BSoD. In this case, you are running a Windows system, so an SPoD does not apply.

POST errors are encountered when booting your system (before running Windows) and do not apply in this scenario.

HVAC stands for Heating, Ventilation, and Air Conditioning. This is the system that moves air between indoor and outdoor areas in a room. HVAC does not directly apply to computer systems.

References

3.4.2 Motherboard Troubleshooting Facts
q_mb_trb_bsod_description_pp7.question.fex

Question 3.**× Incorrect**

A clicking noise in your computer has now evolved into a grinding noise. In addition, you are beginning to see frequent error messages while running software, and your computer occasionally freezes.

What is the MOST likely cause of these issues?

- ☐ A failing RAM card
- ☐ A failing hard drive
- ☐ A failing internal fan
- ☐ A failing video card

Explanation

A failing hard drive can cause a clicking noise, which eventually evolves into a grinding noise. Other indicators are frequent error messages while running software and your computer freezing (locking up).

While a failing fan can also cause a grinding noise, it does not start out as a clicking noise. In addition, it probably won't cause application error message.

A failing video card can freeze your screen, but will not normally cause application errors or produce a grinding noise.

While a failing RAM card may cause issues with applications, it will not produce any noises.

References

3.4.2 Motherboard Troubleshooting Facts
q_mb_trb_failing_hard_drive_pp7.question.fex

Question 4.**✗ Incorrect**

When you turn on your workstation, you immediately hear a grinding noise coming from inside the computer case.

Which of the following are the MOST likely causes of this noise?

- ☐ A POST test error message.
- ☐ A connector that is not seated properly.
- ☐ An uneven case surface that causes fan blade and motor noise.
- ☐ A video card that is failing.
- ☐ Dust buildup that needs to be cleaned.

Explanation

When you hear a buzzing or grinding noise, the most likely cause is your PC's fan. There are many things that can cause your fan to make a grinding noise, including dust buildup that needs to be cleaned and an uneven case surface.

A failing video card may result in a noise from the video card fan, but it will not be a grinding noise.

A POST test error message can result in a series of beeps or a text message on the screen, but this error does not cause an audible grinding noise.

A connector that is not seated properly can cause an electrical arch, resulting in smoke or a burning smell. However, the connector will not produce a grinding noise.

References

3.4.2 Motherboard Troubleshooting Facts

q_mb_trb_grinding_noise_causes_pp7.question.fex

Question 5.**✖ Incorrect**

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 a.m.

Which of the following is the MOST likely cause of this behavior?

- ☐ The motherboard battery has failed.
- ☐ The UEFI firmware is outdated.
- ☐ A RAM module has become unseated from its socket.
- ☐ The UEFI firmware is corrupt.

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.

While outdated IEFI firmware might cause certain issues, in this scenario, the date and time issues are most likely caused by a failed motherboard battery.

RAM modules have no direct impact on UEFI settings.

References

3.4.1 Motherboard Troubleshooting



3.4.2 Motherboard Troubleshooting Facts

q_mb_trb_mthbrd_batt_fail_pp7.question.fex

Question 6.**× Incorrect**

Which pin on the power supply connector connects to the power good wire on the motherboard in order to indicate an appropriate action for the motherboard if the power disappears, quickly reappears, or does not appear at all?






- ☐ Pin 6
- ☐ Pin 8
- ☐ Pin 5
- ☐ Pin 2

Explanation

Pin 8 on the power supply connector connects to the power good wire on the motherboard.

- If power disappears from this wire, the motherboard shuts down.
- If power quickly reappears on this wire, the system may attempt to come back on by itself, resulting in continual reboots.
- If power does not reappear on this wire, the system shuts off.

References

-  2.6.2 PC and Networking Tools Facts
-  3.4.1 Motherboard Troubleshooting
-  3.4.2 Motherboard Troubleshooting Facts
-  3.10.2 Processor Troubleshooting Facts
-  3.14.2 Power Supply Facts

q_mb_trb_pin_8_connector_pp7.question.fex

Question 7.**✖ Incorrect**

An employee calls to complain that their computer is behaving erratically. Some days, it functions correctly, and other days, it crashes frequently. Sometimes, the system won't boot at all.

You open the system case and notice the following:

- Two of the mounting screws are missing from the system hard disk drive.
- The system uses memory modules from several different manufacturers with mismatched capacities.
- Several capacitors on the motherboard are bulging and have a brown liquid oozing from them.
- The chassis fan on the front of the case is oriented to blow air into the system.

What should you do?

- ☐ Replace the motherboard.
- ☐ Replace the existing memory modules with matching modules.
- ☐ Replace the leaky capacitors on the motherboard.
- ☐ Use additional screws to mount the hard disk drive to the system case.
- ☐ Reorient the chassis fan to draw air out of the system case.

Explanation

The motherboard in this scenario has distended capacitors. This is evidenced by their bulging shape and the brown fluid leaking from them. The best way to solve this issue is to replace the entire motherboard.

The fan in this scenario is pushing air in the correct direction.

Installing matching memory modules may improve system performance, but this will not remediate the system's instability problem.

Using additional mounting screws on the hard disk drive will not improve system stability.

Replacing individual leaking capacitors on the motherboard is extremely difficult and could further damage the motherboard.

References



3.4.1 Motherboard Troubleshooting



3.4.2 Motherboard Troubleshooting Facts

q_mb_trb_replace_mthbrd_pp7.question.fex

Question 8.**× Incorrect**

When playing videos games or watching movies on your workstation, the screen sometimes freezes and displays strange colors. You suspect that your video card is causing the issues.

What is the BEST solution to resolve your display issues?

- ☐ Update the video card driver.
- ☐ Check the video card connectors.
- ☐ Replace the video card.
- ☐ Check the video card fan.

Explanation

The best remedy is to replace the video card because it will fail completely at some point.

While updating the video card driver may resolve the display issues for now, it is more likely that your video card is failing. The best solution is to simply replace the video card.

If the video card has been working properly until now, it is highly unlikely that you have a loose video card connector.

If you are not hearing any noise from the fan while it is spinning, it is highly unlikely that the fan is the cause of the display issues.

References

3.4.2 Motherboard Troubleshooting Facts



3.7.1 Memory Troubleshooting



3.7.3 Memory Troubleshooting Facts

q_mb_trb_replace_video_card_pp7.question.fex

Question 9.**× Incorrect**

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.

Which of the following would be the MOST important action to take first?

- ☐ Open the computer case and look for dust buildup.
- ☐ Log in and check 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 further damage and the chance of a fire hazard.

Event Viewer shows past system events and error messages, but this function would not help in this scenario.

While calling the IT director might be your next step, your first step should be to shut off the system.

While inspecting your computer, you should look for dust buildup on components and clean them as necessary. However, inspecting for dust buildup is not the first step you should take in this scenario.

References

3.4.1 Motherboard Troubleshooting



3.4.2 Motherboard Troubleshooting Facts

q_mb_trb_shut_off_system_pp7.question.fex

Question 10.

✗ Incorrect

While performing data entry on your Windows 11 laptop, your screen suddenly goes black.

What can you do immediately to troubleshoot the issue without losing any data that you have entered?

- ☐ Press **F5** four times
- ☐ Press **Ctrl + Alt + Del**
- ☐ Press **Ctrl + Shift + B**
- ☐ Press the **Windows key + P** four times

Explanation





If your screen suddenly goes black, try using the **Windows key + P** four times to switch between the four different display modes to see if the black screen disappears.

Pressing **Ctrl + Shift + B** resets the video driver in Windows 10 and can be useful when encountering a black screen. However, this is a Windows 11 laptop.

Pressing **Ctrl + Alt + Del** lets you terminate an application task or reboot the operating system. However, in this scenario, you probably want to check the display first before terminating applications or rebooting the system.

Pressing **F5** refreshes the screen, which will probably not resolve your black screen issues. In addition, pressing **F5** may cause the data entry software to close, causing you to lose your data.

References

-  3.4.2 Motherboard Troubleshooting Facts
 -  3.7.3 Memory Troubleshooting Facts
 -  3.10.2 Processor Troubleshooting Facts
 -  12.7.1 Common Laptop Issues
- q_mb_trb_windows_key_p_pp7.question.fex