# 4.7 Module Quiz

**Date:** 11/23/2025, 4:51:07 AM

**Time Spent:** 22:49

**Score: 93%**

Passing Score: 80%

Question 1 ✓ Correct

A company is planning to implement a secure method for storing cryptographic keys used in their data encryption processes. They have several computers that do not support Trusted Platform Module (TPM) technology.

The IT manager is considering using a Hardware Security Module (HSM) for this purpose.

Which of the following reasons BEST justifies the use of an HSM in this scenario?

- An HSM can be used to enhance the overall network bandwidth of the company.
- An HSM can be used to improve the processing speed of encryption algorithms.
- **An HSM provides a secure way to store cryptographic keys, especially for computers lacking TPM support.** ✓ Correct
- An HSM can be used to back up all company data to prevent data loss.

**Explanation**

A Hardware Security Module (HSM) is used to securely store cryptographic keys. It is particularly useful for computers that do not support TPM, providing a secure alternative for key storage and recovery.

An HSM is focused on secure storage of cryptographic keys, not on network performance.

The purpose of an HSM is specifically for securely storing cryptographic keys, not for general data backup.

An HSM is used for secure storage of cryptographic keys, which is unrelated to the speed of encryption processes.

**Related Content**

4.1.8 Trusted Platform Modules

resources\questions\q_trusted_platform_modules_06.question.xml

Question 2 Correct

A technician is troubleshooting a video display that is fuzzy. What has caused this?

- Insecure connector
- Incorrect color display
- Burn-in
- Resolution mismatch ✓ Correct

**Explanation**

If the output resolution does not match the display device's native resolution, the image will appear fuzzy. This typically happens if the video card's driver is faulty or incorrectly configured.

If a technician does not securely insert the video cable and connectors at both ends, this could cause a flickering or flashing image.

Burn-in is when the same static image displays on-screen for an extended period, and the monitor's picture elements are damaged. This causes a ghost image to "burn" permanently onto the display.

If a computer produces digital art, it is very important that the technician calibrate the display to scanning devices and print output to avoid an incorrect color display.

**Related Content**

4.3.7 Troubleshoot Video Quality Issues
resources\questions\q_troubleshoot_video_quality_issues_01.question.xml

Question 3 ✓ Correct

You have just installed an SSD drive in your older Windows workstation. However, after you start Windows, you do not see the SSD drive listed in Windows Explorer.

What should you do FIRST?

- ○ Replace the power supply.
- ○ Configure the jumpers on the SSD drive.
- ○ Use the voltage switch on the power supply to switch from 110 to 220 volts.
- ◉ Make sure the power connectors on the SSD drive are plugged in all the way. ✓ Correct

**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 the power connectors are plugged into the SSD drive.

Jumpers are pins on the back of some older hard drives and are used to enable specific types of settings. These do not apply to an SSD drive.

Replacing the power supply is one of the last steps you should take, especially if the power supply is new and seems to be working.

Using the voltage switch to go from 110 to 220 volts does not normally impact whether or not an SSD drive is working.

**Related Content**

- 4.2.5 Troubleshoot Boot Issues
- 4.2.6 Lab: Troubleshoot Boot Issues
- 4.2.7 Troubleshoot Boot Sector Issues
- 4.2.9 Troubleshoot Drive Availability
- 4.2.10 Lab: Troubleshoot Drive Availability
- 14.4.1 Boot Process
- 14.4.2 Boot Recovery Tools

14.4.8 Troubleshoot Boot Issues

14.4.12 Troubleshoot System Fault Issues

resources\questions\q_troubleshoot_boot_issues_01.question.xml

Question 4 Correct

A technician retrieved a computer from storage, powered it on, and shortly began to notice a burning smell. What does this indicate?

- (●) Overheating ✓ Correct
- ( ) Inaccurate date/time
- ( ) Disk failure
- ( ) Cabling issues

**Explanation**

Unusual odors, such as a burning smell or smoke, will almost always indicate that something (probably the power supply) is overheating.

A hard disk drive (HDD) is most likely to fail due to mechanical problems either in the first few months of operation or after a few years.

The technician not securely connecting the cables at both ends, the cable has become stretched or crimped, or an incorrect cable specification may all cause cabling issues.

If the network does not correctly synchronize the date and time, security systems will not work, and utilities such as backup programs and schedulers will be unreliable.

**Related Content**

3.4.5 CPU Features

4.2.1 Troubleshoot Power Issues

4.3.2 Overheating

4.3.4 Troubleshoot Performance Issues

14.4.11 Troubleshoot Performance Issues

resources\questions\q_overheating_02.question.xml

Question 5 ✓ Correct

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

What should you do to prevent this from happening?

- Configure each computer to automatically power off after five minutes of inactivity.
- Increase the hardware acceleration setting on each computer.
- Install a software utility on each computer that is designed to fix stuck pixels.
- (selected) Configure a screen saver on each computer. ✓ Correct

**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 computer.

Configuring the computers to automatically power off after five minutes of inactivity can prevent burn-in, but this will also make the notebooks 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 is a solution for repairing a burnt-in display, but this will not prevent burn-in from happening in the first place.

**Related Content**

4.3.7 Troubleshoot Video Quality Issues
resources\questions\q_troubleshoot_video_quality_issues_03.question.xml

Question 6 Correct

What is the primary purpose of implementing Secure Boot in a UEFI-based system?

- To increase the boot speed by bypassing unnecessary hardware checks.
- To ensure that only trusted and signed software is loaded during the boot process. ✓ Correct
- To allow users to set a password that prevents unauthorized access to the BIOS/UEFI settings.
- To enable the system to boot from multiple operating systems without user intervention.

**Explanation**

The primary purpose of Secure Boot is to enhance security by ensuring that only trusted and signed software is loaded during the boot process. This helps protect the system from malware and unauthorized software.

Secure Boot is not designed to increase boot speed. Its purpose is related to security, ensuring that only trusted software is loaded during the boot process. It does not bypass hardware checks to speed up booting.

While setting a password can prevent unauthorized access to BIOS/UEFI settings, it is not the function of Secure Boot. Secure Boot focuses on verifying the integrity of the software loaded during boot, not on access control to firmware settings.

Secure Boot does not facilitate booting from multiple operating systems. Its role is to ensure that the software loaded during boot is trusted and signed, which may actually restrict booting from unsigned or untrusted operating systems.

**Related Content**

4.1.6 Boot Passwords and Secure Boot

resources\questions\q_boot_passwords_and_secure_boot_05.question.xml

Question 7 ✓ Correct

You are a technician tasked with diagnosing a desktop computer that has been reported to frequently freeze and experience slow file access times.

Upon investigation, you notice that the hard disk drive (HDD) is making unusual clicking noises.

What is the MOST appropriate action to take to address the drive's reliability and performance issues?

- Update the computer's BIOS/UEFI settings to ensure proper drive configuration.
- Replace the HDD with a new one and restore data from the latest backup. ✓ Correct
- Defragment the HDD to improve data access speed and performance.
- Run a full system antivirus scan to check for malware affecting the HDD.

**Explanation**

The symptoms of frequent freezing, slow file access, and unusual clicking noises suggest that the HDD is failing. Replacing the HDD and restoring data from a backup is the most appropriate action to ensure data integrity and resolve the reliability and performance issues.

While malware can affect system performance, the symptoms described (frequent freezing, slow file access, and clicking noises) are more indicative of a physical hardware issue with the HDD rather than a software problem like malware.

Defragmenting the HDD can improve performance in some cases, but it is not suitable for addressing hardware failure symptoms such as clicking noises. Defragmentation does not resolve physical issues with the drive.

While ensuring correct BIOS/UEFI settings is important, it does not address the physical symptoms of a failing HDD, such as clicking noises and performance degradation. The issue is likely hardware-related, requiring drive replacement.

**Related Content**

4.2.9 Troubleshoot Drive Availability

4.2.10 Lab: Troubleshoot Drive Availability

4.2.11 Troubleshoot Drive Reliability and Performance

4.3.1 Troubleshoot Component Issues

resources\questions\q_troubleshoot_drive_reliability_and_performance_02.question.xml

Question 8 ✓ Correct

A client complains that their computer intermittently fails to boot, displaying a "Missing Operating System" error. You have confirmed that the boot order is correct, and the drive is detected in the UEFI/BIOS.

What should you analyze next to identify the root cause of the boot sector issue?

- ○ Test the RAM modules for any faults or errors.
- ◉ Examine the drive for file system corruption or logical errors. ✓ Correct
- ○ Check for any recent changes in the system firmware settings.
- ○ Replace the SATA cables connecting the drive to the motherboard.

**Explanation**

Analyzing the drive for file system corruption or logical errors is appropriate in this scenario. The "Missing Operating System" error can be caused by issues within the boot sector or file system, which may prevent the system from locating the operating system.

While faulty RAM can cause various system issues, it is less likely to be the cause of a "Missing Operating System" error, which is more directly related to the boot sector or drive issues.

Although changes in firmware settings can affect boot behavior, the issue described is more indicative of a problem with the drive's boot sector or file system, not the firmware settings.

While faulty cables can cause detection issues, the drive is already detected in the UEFI/BIOS. The focus should be on analyzing the integrity of the drive's file system and boot sector.

**Related Content**

- 4.2.5 Troubleshoot Boot Issues
- 4.2.6 Lab: Troubleshoot Boot Issues
- 4.2.7 Troubleshoot Boot Sector Issues
- 4.2.9 Troubleshoot Drive Availability
- 4.2.10 Lab: Troubleshoot Drive Availability
- 14.4.8 Troubleshoot Boot Issues

resources\questions\q_troubleshoot_boot_sector_issues_05.question.xml

Question 9 Correct

When configuring fan settings in the UEFI setup program, which option would you select to prioritize a quieter operation over cooling performance?

- Fanless
- Balanced
- Quiet ✓ Correct
- Cool

**Explanation**

The "Quiet" setting prioritizes reducing fan speed to minimize noise, even if it allows for slightly higher system temperatures. This option is specifically intended for quieter operations.

The "Balanced" setting aims to provide a compromise between cooling performance and noise level, but it does not specifically prioritize quieter operation over cooling.

The "Cool" setting is designed to enhance cooling performance by running fans at higher speeds, which typically results in more noise, not less.

While "Fanless" might suggest a quieter operation, it is not a typical setting for active cooling systems in UEFI. It implies no fan operation, which could lead to overheating unless the system is specifically designed for passive cooling.

**Related Content**

4.1.5 Fan Considerations

resources\questions\q_fan_considerations_and_temperature_monitoring_01.question.xml

Question 10 Correct

Zoey has brought her computer in for servicing. When she dropped off her computer, she mentioned that it spontaneously reboots and freezes occasionally.

Which of the following is the MOST likely cause of these problems?

- ○ Failing drive
- ◉ Overheated CPU ✓ Correct
- ○ Bad network card
- ○ Failed UPS

**Explanation**

An overheated CPU can 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 were lost.

A system notification would indicate whether there is a failed drive, as it would not allow reading or writing.

**Related Content**

4.3.1 Troubleshoot Component Issues

4.3.3 Physical Damage

resources\questions\q_physical_damage_03.question.xml

Question 11 ✕ Incorrect

You are an IT technician tasked with resolving a performance issue on a user's computer. The user reports that their computer has become noticeably slower after installing a new graphics card.

Based on the troubleshooting steps for performance issues, which of the following actions should you apply first to address the potential cause of the slowdown?

- Inspect the operating system for any updates or patches that might have been applied after the graphics card installation.
- Verify that the new graphics card is compatible with the motherboard and does not disable dual-channel memory mode. ✓ Correct
- Check the system's temperature sensors to ensure the new graphics card is not causing overheating. ✕ Incorrect
- Use a diagnostic tool to test the new graphics card's performance against the system's previous baseline.

**Explanation**

Ensuring compatibility and that the new graphics card does not interfere with other system components, such as memory configuration, is crucial to resolving the performance issue.

While overheating can cause performance issues, this step is more about preventing thermal damage rather than addressing compatibility or configuration issues that might arise from installing new hardware.

While using a diagnostic tool to test the new graphics card's performance against the system's previous baseline is useful for evaluating the new graphics card's performance, it does not directly address potential compatibility or configuration issues that could be causing the slowdown.

Checking for software updates is important, but it does not directly apply to resolving hardware-related performance issues caused by the installation of a new graphics card. This step is more relevant to addressing software conflicts.

**Related Content**

4.3.3 Physical Damage

4.3.4 Troubleshoot Performance Issues

14.4.6 Update and Driver Roll Back

14.4.11 Troubleshoot Performance Issues

14.4.12 Troubleshoot System Fault Issues

resources\questions\q_troubleshoot_performance_issues_03.question.xml

Question 12 ✓ Correct

You are a technician tasked with resolving a recurring Blue Screen of Death (BSOD) issue on a client's Windows computer.

The BSOD displays the error code "0x0000007B" indicating an "INACCESSIBLE_BOOT_DEVICE."

Which of the following actions should you apply first to address this issue?

- ○ Replace the hard drive, assuming it is failing and causing the boot issue.
- ○ Run a full antivirus scan from a bootable media to check for malware infections.
- ◉ Boot into Safe Mode and check for recent driver updates or changes. ✓ Correct
- ○ Update the system's BIOS/UEFI firmware to the latest version.

**Explanation**

Booting into Safe Mode allows you to load the system with minimal drivers and can help identify if a recent driver update or change is causing the BSOD. This step directly addresses the potential cause of the "INACCESSIBLE_BOOT_DEVICE" error.

While updating the BIOS/UEFI can resolve compatibility issues, it is not the first step to apply when dealing with an "INACCESSIBLE_BOOT_DEVICE" error. This error is more likely related to recent changes in drivers or boot configuration.

Replacing the hard drive is a significant step that should only be considered after confirming hardware failure. The error code suggests a boot device issue, which is often related to software or configuration rather than hardware failure.

While malware can cause system issues, the specific "INACCESSIBLE_BOOT_DEVICE" error is more likely related to driver or boot configuration problems. Checking for driver issues in Safe Mode is a more direct approach to resolving this error.

**Related Content**

4.2.8 Troubleshoot OS Errors and Crash Screens

4.3.1 Troubleshoot Component Issues

resources\questions\q_troubleshoot_os_errors_and_crash_screens_04.question.xml

Question 13 ✓ Correct

Which of the following options is typically available in the system firmware settings for controlling cooling fans?

- ○ Configuring the boot order to prioritize devices with lower heat output
- ◉ Setting the minimum temperature at which fans start to cool the system ✓ Correct
- ○ Adjusting the screen brightness to reduce heat generation
- ○ Enabling Secure Boot to prevent overheating during boot

**Explanation**

In the system firmware settings, you can typically set the minimum temperature at which fans start to cool the system. This option helps manage the cooling process by activating fans when the system reaches a certain temperature threshold.

Adjusting screen brightness is not related to fan control settings in the system firmware. Screen brightness is typically managed through the operating system or monitor settings, not through firmware fan controls.

Secure Boot is a security feature that ensures that only trusted software is loaded during the boot process. It does not have any impact on fan control or temperature management.

Configuring the boot order is related to the sequence in which devices are checked for boot managers, not temperature management or fan control. Boot order settings do not influence heat output or cooling fan operation.

**Related Content**

4.1.5 Fan Considerations

resources\questions\q_fan_considerations_and_temperature_monitoring_04.question.xml

Question 14 Correct

You are evaluating the cooling strategy for a high-performance workstation that frequently runs intensive applications. The system currently uses the "Balanced" fan setting in the UEFI setup program.

Which of the following adjustments would you recommend to ensure optimal cooling performance while minimizing the risk of overheating?

- Switch to the "Quiet" setting to reduce noise and maintain current cooling levels.
- Change to the "Cool" setting to increase fan speed and enhance cooling performance. ✓ Correct
- Implement third-party software to override UEFI settings and manually control fan speeds.
- Maintain the "Balanced" setting as it provides an adequate compromise between noise and cooling.

**Explanation**

Switching to the "Cool" setting increases fan speed, providing better cooling performance, which is essential for a high-performance workstation running intensive applications. This adjustment minimizes the risk of overheating.

Switching to the "Quiet" setting would reduce fan speeds, potentially increasing the risk of overheating during intensive applications. This is not recommended for a high-performance workstation where cooling is critical.

While the "Balanced" setting offers a compromise, it may not provide sufficient cooling for a high-performance workstation under heavy load. Evaluating the need for enhanced cooling suggests a more proactive approach.

While third-party software can offer more granular control, it introduces complexity and potential conflicts with UEFI settings. The "Cool" setting in UEFI is a more straightforward and reliable solution for enhancing cooling performance.

**Related Content**

4.1.5 Fan Considerations

resources\questions\q_fan_considerations_and_temperature_monitoring_02.question.xml

Question 15 ✓ Correct

You have just finished upgrading the 250-watt power supply in your desktop computer to a 450-watt power supply. Now, the BIOS does not recognize one of the hard disk drives in the system during POST.

Which of the following troubleshooting steps is the BEST to try first?

- ○ Replace the power supply.
- ○ Manually enter the hard disk geometry parameters in the BIOS.
- ○ Use the voltage switch on the power supply to go from 110 volts to 220 volts.
- ◉ Make sure that the hard disk is connected to the power supply. ✓ Correct
- ○ Reconfigure the hard disk to utilize the higher-wattage power supply with drive jumpers.

**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 the power connectors are plugged in.

Jumpers are switches on older hard drives that help you enable specific hard drive settings. If the settings worked before upgrading the power supply, they should continue to work.

Replacing the power supply is one of the last troubleshooting steps you should perform.

Switching to a higher voltage on the power supply is unlikely to resolve the issue.

In older systems, you had to manually enter the hard disk geometry, and it was very common for a wrong value to be entered. In this scenario, even if you had to enter the hard disk geometry parameters initially, the hard drive was working prior to upgrading the power supply, and the parameters should still be correct.

**Related Content**

4.2.3 Troubleshoot POST Issues
resources\questions\q_troubleshoot_post_issues_03.question.xml

Copyright © CompTIA, Inc. All rights reserved.