

Exam Report: 3.10.9 Practice Questions

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Overall Performance

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Individual Responses

▼ Question 1:

Incorrect

An employee complains that every time they turn their computer off, the computer's time is set to 12:00 p.m., and the date is set back to January 1, 1990.

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

- ☐ The CMOS chip is failing.
- ☒ ~~The CMOS settings are not being saved before powering off the computer.~~
- ☐ The CMOS chip on the motherboard is loose.
- ➡ ☐ The CMOS battery has failed.

Explanation

The CMOS (a physical part of the motherboard) is a memory chip that houses setting configurations. The CMOS is able to maintain its setting when the computer is powered off by using a CMOS battery. If the CMOS battery is failing, you may see the effects, such as the time and day being slightly off. If the CMOS battery has failed, it will typically reset the date and time back to the date the CMOS was created.

The CMOS is reset and loses all custom settings if the CMOS battery fails. Additionally, the system clock resets when the CMOS loses power.

References

TestOut PC Pro - 3.10 BIOS/UEFI
[e_bios_pp6.exam.xml Q_BIOS_01]

▼ Question 2:

Correct

Which of the following components is an example of firmware?

- ➡ ☒ BIOS/UEFI
- ☐ EEPROM
- ☐ RAM
- ☐ Cache

Explanation

The basic input/output system (BIOS) and unified extensible firmware interface (UEFI) are examples of firmware. BIOS/UEFI is a software program that is stored on a non-volatile, removable, or erasable semiconductor chip. Cache is an area of memory that holds recently accessed data. Random Access Memory (RAM) is a temporary data storage location that can be read from and written to. Cache and RAM are all examples of volatile memory. Data is lost when power is no longer supplied to the component. EEPROM is a type of read-only, non-volatile memory used in computers and other electronic devices to store relatively small amounts of data.

References

TestOut PC Pro - 3.10 BIOS/UEFI
[e_bios_pp6.exam.xml Q_BIOS_02]

▼ Question 3: Correct

Which of the following is a general term for the program that holds system information related to computer startup?

- ☐ DRAM
- ➡ ☒ CMOS
- ☐ UEFI
- ☐ Cache memory

Explanation

CMOS is a general term for the program that stores important system information related to computer startup. Data held in CMOS includes the hard disk type and configuration, the order of boot devices to try, and other configurable settings related to the system hardware. UEFI is firmware that was designed to replace BIOS. The UEFI program controls the startup process of a computer and loads the operating system into memory. Cache is an area of memory that holds recently accessed data. Random Access Memory (RAM) is a temporary data storage location that can be read from and written to.

References

TestOut PC Pro - 3.10 BIOS/UEFI
[e_bios_pp6.exam.xml Q_BIOS_03]

▼ Question 4: Correct

Which of the following components is necessary to keep the real-time clock running?

- ☐ EEPROM chips
- ☐ CMOS chips
- ➡ ☒ CMOS battery
- ☐ BIOS password

Explanation

The CMOS battery supplies power to the CMOS to keep the real-time clock running.

Formerly, the CMOS battery was needed to save system settings when the computer was powered off. Now that EEPROM chips (EEPROM are ROM chips) have replaced CMOS chips, the battery isn't needed to save system settings.

References

TestOut PC Pro - 3.10 BIOS/UEFI
[e_bios_pp6.exam.xml Q_BIOS_04]

▼ Question 5: Correct

When you boot the computer, it hangs after asking you for the current time and date. What is the most likely problem?

- ☐ Daylight Savings Time has started or ended.
- ☐ The BIOS is outdated.
- ☐ The computer needs more RAM.
- ➡ ☒ The CMOS battery has failed.

Explanation

The system time and date are managed by the Real Time Clock (RTC) in the BIOS. If the CMOS memory battery goes dead, the RTC reverts back to a default date and time.

References

TestOut PC Pro - 3.10 BIOS/UEFI
[e_bios_pp6.exam.xml Q_BIOS_05]

▼ Question 6: Incorrect

Which of the following components is a non-volatile memory technology for saving system settings when the computer is powered off?

- ☒ CMOS battery
- ☐ CMOS chips
- ☐ BIOS password
- ➡ ☐ EEPROM chips

Explanation

EEPROM chips are a non-volatile memory technology for saving system settings when the computer is powered off. EEPROM are ROM chips that have replaced CMOS chips (which needed the CMOS battery power to save system settings).

Now, the CMOS battery is only used to keep the real-time clock running.

References

TestOut PC Pro - 3.10 BIOS/UEFI
[e_bios_pp6.exam.xml Q_BIOS_06]

▼ Question 7: Correct

When do you need to upgrade the system BIOS?

- ➡ ☒ Whenever a BIOS update provides functionality that is not currently supported, but is required by the operating system or hardware.
- ☐ Whenever you add a new peripheral device, such as a keyboard, mouse, or printer.
- ☐ Whenever you install a new hard disk drive.
- ☐ Whenever the BIOS settings need to be modified.

Explanation

In general, you need to upgrade the system BIOS whenever the current BIOS does not support a function required by the operating system or by the hardware. Use the CMOS program to change system configuration settings used by the BIOS.

References

TestOut PC Pro - 3.10 BIOS/UEFI
[e_bios_pp6.exam.xml Q_BIOS_07]

▼ Question 8: Incorrect

Which of the following are benefits UEFI provides that BIOS does not? (Select three.)

- ➡ ☐ Faster startup times.
- ➡ ☒ Supports drives larger than 2.2 TB.
- ☐ Allows individual bytes to be erased and reprogrammed.

☐ Provides non-volatile storage of system startup information.

☒ ~~Does not need to be flashed as frequently.~~

➡ ☐ Supports 64-bit firmware device drivers.

Explanation

Unlike BIOS, UEFI provides the following benefits:

- Faster startup times.
- Supports drives larger than 2.2 terabytes.
- Supports 64-bit firmware device drivers.
- Provides better security to protect against bootkit (malware attacks on the boot process) attacks.

Similar to BIOS, UEFI does need to be flashed when updates are available to make new features available on the computer.

EEPROM is the technology that provides non-volatile memory and allows individual bytes to be erased and reprogrammed.

References

TestOut PC Pro - 3.10 BIOS/UEFI
[e_bios_pp6.exam.xml Q_BIOS_08]

▼ Question 9: Correct

What is the name for the routine that tests the motherboard, memory, disk controllers, video, keyboard and other system hardware?

➡ ☒ POST

☐ CMOS

☐ BIOS

☐ CSST

Explanation

POST stands for power on self-test. It is the routine that tests system hardware on startup.

The BIOS chip is firmware (hardware hard-coded with software) attached to the motherboard and is essential in booting the computer. The CMOS battery supplies power to the real-time clock to maintain the date and time.

References

TestOut PC Pro - 3.10 BIOS/UEFI
[e_bios_pp6.exam.xml Q_BIOS_09]

▼ Question 10: Correct

Which of the following (1 BEST describes the technology designed to replace the BIOS and (2 is a firmware solution for controlling the startup process and loading the computer operating system into memory?

☐ EEPROM

☐ BIOS 2

☐ CMOS

➡ ☒ UEFI

Explanation

UEFI was designed to replace the BIOS and is a firmware solution for controlling the startup process and

loading the computer operating system into memory. CMOS is a legacy computer chip technology that was used to store system information prior to the introduction of EEPROM. EEPROM is a non-volatile memory chip that stores the system startup information configured through UEFI. BIOS 2 does not exist.

References

TestOut PC Pro - 3.10 BIOS/UEFI
[e_bios_pp6.exam.xml Q_BIOS_10]

▼ Question 11: Correct

To fix a problem you are having with your PC, you have determined that you must flash the computer's BIOS.

Which of the following would MOST likely need to be completed prior to flashing the BIOS? (Select TWO).

- ➡ ☒ Properly identify the motherboard.
- ☐ Create a backup of the hard disk in the event of a failure.
- ☐ Locate the flash utility or tool that was shipped with your PC.
- ☐ Test the memory to ensure that it is functioning properly.
- ➡ ☒ Download the flash utility or tool from the manufacturer's website.

Explanation

To successfully flash your BIOS, it is critical that you research and know the exact make, model, and revision of your motherboard to ensure that the correct flash file is used. Using the wrong flash file will probably cause errors.

Although your computer may have shipped with a tool to perform a BIOS flash, it is best to download the latest tool to ensure that the flash is performed correctly. Testing the memory and creating a hard backup will not aid you while flashing a PC's BIOS.

References

TestOut PC Pro - 3.10 BIOS/UEFI
[e_bios_pp6.exam.xml Q_BIOS_11]

▼ Question 12: Incorrect

What is the role of the CMOS in a modern computer?

- ☐ Tests hardware during system startup.
- ☒ ~~Loads the operating system into memory.~~
- ☐ Coordinates the use of system hardware with the operating system.
- ➡ ☐ Saves information about system devices.

Explanation

The CMOS saves information about system devices. The BIOS tests hardware during system startup, coordinates the use of system hardware with the operating system, and loads the operating system into memory.

References

TestOut PC Pro - 3.10 BIOS/UEFI
[e_bios_pp6.exam.xml Q_BIOS_13]

▼ Question 13: Correct

One of the users in your company notices some strange behavior on his computer. After describing what is being seen, you do a little research and determine that the best course of action is to update the UEFI firmware.

Before performing the upgrade, if possible, which of the following is the BEST action to take?

- ☐ Password protect the system.
- ☐ Change the motherboard battery.
- ☐ Upgrade the processor.

➡ ☒ Connect the computer to a UPS.

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. Most BIOS/UEFI setup programs provide an option to save existing settings to a file; you should also back up your existing UEFI settings before you update.

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

References

TestOut PC Pro - 3.10 BIOS/UEFI
[e_bios_pp6.exam.xml Q_BIOS_14]

▼ Question 14: Incorrect

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.

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

- ☐ Check your keyboard settings in Control Panel.
- ☐ 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.~~
- ☐ Verify that the latest UEFI firmware updates have been applied.

➡ ☐ Verify that no keys are being pressed down during POST.

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

TestOut PC Pro - 3.10 BIOS/UEFI
[e_bios_pp6.exam.xml Q_BIOS_15]