Exam Report: 3.9.6 Practice Questions

Date: 3/6/2020 8:32:47 pm
Time Spent: 10:21

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Overall Performance

Your Score: 50%

Passing Score: 80%

View results by: Objective Analysis Individual Responses

Individual Responses

Question 1: Incorrect

There are critical times when memory problems often manifest themselves.

Match each critical time on the left with the corresponding cause of the memory problems on the right.

This event can require more memory and can cause problems if there is not enough memory when it occurs.

~~First boot of a new computer~~ Software installation

Memory is not properly seated or missing/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.

~~Software installation~~ 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 as follows:

- 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

TestOut PC Pro - 3.9 Memory Troubleshooting
[e_memtrb_pp6.exam.xml Q_TRBL_MEM_01]

Question 2: Correct

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

- EDO
- Parity
- ECC

Non-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, but a type of memory that can start a new access cycle while keeping the data output of the previous cycle active.

References

TestOut PC Pro - 3.9 Memory Troubleshooting
[e_memtrb_pp6.exam.xml Q_TRBL_MEM_02]

Question 3: 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.
- Either a card/memory module is not seated properly or the system includes unsupported memory.
- Either no memory is installed or the memory was not detected.
- ~~The POST failed to recognize all of the memory.~~

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 properly or the system includes unsupported memory, the system will boot, 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

TestOut PC Pro - 3.9 Memory Troubleshooting
[e_memtrb_pp6.exam.xml Q_TRBL_MEM_03]

Question 4: Incorrect

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

- Parity
- EDO
- ~~ECC~~
- Non-parity

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

TestOut PC Pro - 3.9 Memory Troubleshooting
[e_memtrb_pp6.exam.xml Q_TRBL_MEM_04]

Question 5: Correct

You just replaced the motherboard, CPU, and memory 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?

- Connect the power button to the motherboard.

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

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

TestOut PC Pro - 3.9 Memory Troubleshooting
[e_memtrb_pp6.exam.xml Q_TRBL_MEM_05]

Question 6: Incorrect

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

- ☑ ~~Registry error~~
- ☐ Page fault
- ☑ General-protection fault
- ☐ Parity interrupt
- ☑ Exception error
- ☐ Incorrect memory count

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 indicates 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 memory with single-bank memory.

References

TestOut PC Pro - 3.9 Memory Troubleshooting
[e_memtrb_pp6.exam.xml Q_TRBL_MEM_06]

Question 7: 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.

While troubleshooting this issue, which of the following is BEST to try first?

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

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 the BIOS does not recognize.

References

TestOut PC Pro - 3.9 Memory Troubleshooting
[e_memtrb_pp6.exam.xml Q_TRBL_MEM_07]

Question 8: 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?

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

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, 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

TestOut PC Pro - 3.9 Memory Troubleshooting
[e_memtrb_pp6.exam.xml Q_TRBL_MEM_08]

Question 9: Incorrect

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.

Which of the following actions would MOST likely rectify this issue?

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

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 video card instead of PCIe.
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

TestOut PC Pro - 3.9 Memory Troubleshooting
[e_memtrb_pp6.exam.xml Q_TRBL_MEM_09]

Question 10: 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.

Which of the following is the MOST likely cause?

- Incompatible memory was installed
- Memory not installed or not detected
- The system includes unsupported memory
- New and old memory have been mixed

Explanation

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

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

TestOut PC Pro - 3.9 Memory Troubleshooting
[e_memtrb_pp6.exam.xml Q_TRBL_MEM_10]