

A+ CompTIA 801-802 Chapter 1 Question Bank

True/False

1. Firmware is a type of dedicated software on a hardware memory device used to control hardware by receiving instruction input from software applications.

True: BIOS chip is an example of software used to regulate the hardware system board.

2. The BIOS chip can save user data changes made to applications such as games and office programs.

False: The BIOS is used to maintain system settings, not application data.

3. A common point of system failure on a laptop computer is the TV Tuner card.

False: A laptop does not come with a TV Tuner card, and even though such a feature can be a peripheral add-on, it would not be a common point of system failure.

4. The final step to the six-step troubleshooting process defined by CompTIA is to verify the fixes to the system functionality and implement any possible preventative measures to avoid repetition of the issue.

False: The final step is to document findings, actions, and outcomes.

5. In troubleshooting, an example of testing a theory to determine the cause might be to swap out a suspected bad component with a known good component.

True: This action verifies whether the cause of the problem is what was suspected or whether there might be another cause that needs to be investigated.

6. An antistatic wrist strap would be used to remove dust particles from a dirty computer screen.

False: Anti-static wrist straps are used to protect sensitive chips from ESD. There are more effective ways to remove dust from a computer screen.

7. Loopback plugs check input/output functions by connecting transmission pins to receive pins to see if the port is physically working properly.

True: This process can be used to test numerous kinds of problems with data systems.

8. As a first step in troubleshooting, and before attempting to establish how to fix a reported computer issue, the technician should question the user about the symptoms to identify the problem as exactly as possible.

True: No attempt to fix a computer problem is going to be efficient until the problem can be identified with some precision. Example: For a user to simply say that the printer does not work is too broad of a symptom and could result in multiple trips to fix an issue.

9. Examples of inputs include all the following: Touch sensitive screens, keyboards, fingerprint readers, mouse, voice recognition microphones, and optical/kinetic recognition devices.

True: All these can provide input that causes the computer and its applications to provide data that is then processed to provide output.

10. The failure of a CMOS battery can cause catastrophic failure of the motherboard and thus the entire computer system.

False: The CMOS battery can cause the system settings to revert to their default settings, which may cause some frustration but not catastrophic failure.

11. If you do not see, hear, or feel any static electricity discharged from your finger to a computer device, it is safe to assume that no damage has occurred.

False: ESD is difficult to detect, and even small amounts of discharge can affect sensitive chips.

12. On a laptop computer, an add-on card, such as an ExpressCard, can cause the system not to boot.

True: If a short were to happen because of debris in the slot or a damaged card, the computer may not boot or may boot with errors.

Multiple Choice Questions

1. Which of the following features are found almost exclusively on laptop computers? (Choose all that apply.)

- a. PCIe slot
- b. ExpressCard slot
- c. USB ports
- d. DVD drive
- e. Port cluster
- f. Touchpad

Answers: B and F. Few desktop computers include an ExpressCard slot and a touchpad. These components are typically found on laptop computers. Both desktop and laptop computers typically include DVD drives and USB ports, whereas desktop computers include PCIe slots and port clusters.

2. Which of the following features may be visible from the front of a desktop computer? (Choose all that apply.)

- a. Card reader
- b. DVI-D port
- c. USB ports
- d. DVD drive
- e. Port cluster
- f. Audio ports

Answers: A, C, D, and F. Card readers and DVD drives are found on the front of desktop computers that include these components. USB and audio ports might be on the front and the rear of typical desktop computers.

3. You are preparing to upgrade the firmware in a system. Which of the following devices are likely to include a firmware chip? (Choose all that apply.)

- a. DVD drive
- b. USB card
- c. RAID host adapter
- d. Motherboard
- e. Port cluster
- f. Touchpad

Answers: A, C, and D. Although the ROM BIOS on the motherboard is the most common location for firmware, almost all rewriteable DVD drives and RAID host adapters also include firmware.

4. You examine a possibly failed motherboard to determine if the motherboard or a component connected to it has failed. Which of the following points of failure will you likely find on the motherboard? (Choose all that apply.)

- a. CMOS battery
- b. DVD drive
- c. Capacitors
- d. SATA cable
- e. Power supply

Answers: A and C. The CMOS battery (maintains BIOS settings) and capacitors (used for the voltage regulator components for the CPU) are located on the motherboard.

5. You evaluate a collection of add-on cards to determine which cards should be retained as spares. Obsolete cards that will be discarded include ISA cards and EISA cards for desktops, and for laptops, PC Cards that must use a special device to enable a network or modem cable to be connected to the card. The extension is known as a

- a. Header cable
- b. Gender changer

- c. Port adapter
- d. Express Card
- e. Dongle
- f. PCMCIA Card

Answer: E. A dongle is the special cable that enables standard cables to connect to a PC Card and CardBus cards. PC Cards that use dongles are mainly obsolete today.

6. The CompTIA six-step troubleshooting process includes a step in which you “Verify full system functionality and, if applicable, implement preventative measures.” Which number is this step?

- a. Step 2
- b. Step 1
- c. Step 6
- d. Step 5
- e. Step 4
- f. Step 3

Answer: D. The step that includes “Verify full system functionality and, if applicable, implement preventative measures” is the fifth step of the six steps in the process.

7. CompTIA has created a six-step process for troubleshooting. The first step in the process is to identify the problem. Which of the followings steps resembles the next step in the methodology?

- a. Establish a theory of probable cause.
- b. Document findings, actions, and outcomes.
- c. Test the theory to determine the cause.
- d. Establish a plan of action to resolve the problem and implement the solution.

Answer A. The first step to troubleshooting is to always identify the problem prior to taking action. The second step to troubleshooting is to establish a theory of probable cause that leads to finding the problem.

8. You check the contents of your computer toolkit before performing internal upgrades on a desktop computer. Which of the following tools in your toolkit should you use to prevent ESD damage to internal components?

- a. Cable tester
- b. Wrist strap
- c. Loopback plugs
- d. Torx drivers

- e. Multimeter
- f. Crimper

Answer: B. The wrist strap, which is worn on the wrist so that the metal plate on the band touches the user's skin and the other end is locked around bare metal components, helps prevent damage from ESD.

9. You check the contents of your computer toolkit before performing upgrades on a desktop computer. Which of the following tools in your toolkit should you use to verify proper operation of the power supply?

- a. Cable tester
- b. Wrist strap
- c. Loopback plugs
- d. Torx drivers
- e. Multimeter
- f. Crimper

Answer: E. The multimeter tests the power supply by checking the actual output against the rated voltage for the various wires in the power supply connection to the motherboard.

10. Of the following all but one represent the three main categories of a computer system. Which one is not a main component category?

- a. Hardware
- b. Firmware
- c. Display system
- d. Software

Answer: C. Important as it may be, the display system is an output device that is not critical to the actual processes performed by the computer.

11. Of the following, which operating system is considered to be open source?

- a. Windows XP
- b. Apple iOS
- c. Linux
- d. Windows 7
- e. Windows Vista

Answer: C. Linux is the only open source system. All Windows and Apple systems use proprietary code.

12. Operating system commands are considered to have two types. Which one of the following pairings represents the labels used to describe these two types of commands?

- a. Internal/external

- b. Intrinsic/extrinsic
- c. Software/hardware
- d. System/application
- e. 32 bit/64 bit

Answer: A. Internal commands are part of the core system. External commands are included with the system utilities but must be independently executed by the user.

13. Of the following, which would be considered system utilities?

- a. CHKDSK
- b. Defrag
- c. Delete
- d. Dir
- e. Disk Management

Answer: A, B, and E are system utilities. Delete and Dir are system commands.

14. Toolkits generally have _____ for the removal and replacement of jumpers.

- a. Hex drivers
- b. Three-claw parts retrieval tool
- c. Eyebrow tweezers
- d. Torx driver

Answer C. Toolkits generally contain a vast set of tools for installing, maintaining, and repairing personal computers. Eyebrow tweezers are typically found in toolkits for the removal and replacement of jumpers within hard disks.

15. Which of the following can prevent the discharge of ESD? (Choose all that apply.)

- a. Antistatic wrist strap
- b. Touching the chassis of the computer
- c. Antistatic mat
- d. Antistatic bags

Answers A, B, C, and D. You can prevent ESD by using the correct ESD components. The following components prevent ESD: antistatic wrist strap, antistatic mat, antistatic bags, and by touching the chassis of the computer.

16. CompTIA has created a six-step process for troubleshooting. The first step in the process is to identify the problem. Which of the following steps resembles the next step in the methodology?

- a. Establish a theory of probable cause.
- b. Document findings, actions, and outcomes.
- c. Test the theory to determine the cause.
- d. Establish a plan of action to resolve the problem and implement the solution.

Answer A. The first step to troubleshooting is to always identify the problem prior to taking action. The second step to troubleshooting is to establish a theory of probable cause that leads to finding the problem.

17. A technician has booted up the 5-year-old computer of a user who complains that the system suddenly no longer uses of his add-on audio card. Upon booting, the technician notices that the system time is 10 years in the past. Which one of the following is a probable cause to investigate?

- a. The network time server is down.
- b. The synchronization with atomic clock has failed.
- c. The user changed the time to avoid passing the expiration date on a trial piece of software.
- d. The CMOS battery has failed.

Answer. D. With the system 5 years old and the suspiciously old system time, it is logical that the CMOS has reverted to the system settings and is now using the onboard audio.

18. What is the part of the computer system that receives inputs, directs those inputs to the processor, and redirects the processed data to outputs called at?

- a. CPU
- b. Interface card
- c. Controller chip
- d. Southbridge
- e. System Board
- f. PCI Mastering

Answer: E. The system board, also known as the motherboard, has the role to interact with the inputs to receive data and redirect the data to the appropriate location. Most of the time, the data goes to the CPU or to a data storage location.

19. Which of the following is likely to have a firmware component? (Choose all that apply.)
- a. Video card
 - b. Printer
 - c. Network Interface Card
 - d. Motherboard

Answer: A, B, C, and D. All these components require firmware to direct the hardware to make the logical and physical adjustments necessary to perform their specific functions.

Matching Exercises

1. Match the following procedures to the tools needed:
- a. Verify correct voltage from power supply.
 - b. Clean the power supply and case fans.
 - c. Test I/O ports.
 - d. Research a BSOD (STOP) error.
 - e. Test the network cable.

Matches

- A. Multimeter
- B. Compressed air
- C. Loopback test
- D. Knowledge Base website
- E. Cable tester

2. Match the following network installation functions with the correct tool:
- a. Checks cable continuity and wire-pair configuration.
 - b. Use to set a UTP cable into a wall jack (keystone jack).
 - c. Use this to test the transmit/receive functions of a network card.
 - d. Within a batch of cables, use this to locate or match up a cable from one end of a long run with the other end of the cable.
 - e. Use to remove the protective outer sheath of a cable.
 - f. Use to attach cable wires to a connector.

Matches

- A. Cable tester
- B. Punch Down tool
- C. Loopback plug
- D. Toner probe
- E. Wire stripper
- F. Crimper

3. Match the following troubleshooting steps by placing them in the right order:

- a. Step 1
- b. Step 2
- c. Step 3
- d. Step 4
- e. Step 5
- f. Step 6

Matches

- A. Identify the problem.
- B. Establish a theory of probable cause.
- C. Test the theory to determine the cause.
- D. Establish a plan of action to resolve the problem and implement a solution.
- E. Verify full system functionality, and where possible implement preventative measures.
- F. Document finds, actions, and outcomes.

4. Order the following scenario actions as they would be done by a technician following the six-step troubleshooting process:

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5
- f. 6

Matches

- A. Interview the user who indicates that his printer is printing poorly. Asked a few questions to determine that the quality of the print output is light or missing.
- B. Given that the printer receives data and attempts to print, the technician suspects that there is an issue with the toner cartridge, perhaps being low on ink toner.

- C. Call the user to get the exact model number of the printer in use. Replace the ink toner cartridge with a new one that appears to fix the issue. Try the old cartridge in another printer of the same model to see if it replicates the problem.
- D. Decide to leave the new cartridge in the printer.
- E. Test the new cartridge by using the printer test page option and from a word processor to verify application functionality.
- F. Enter the information on the office number, user's name, model number of the printer, and the date of the toner cartridge replacement. Determine that the old print cartridge if shaken can still be used for a limited number of copies. Was it placed on the shelf to be used as a test cartridge? Discover that this user used ink toner at twice the rate of other users. Recommend a different printer device that is more economical on ink consumption.