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## COMPUTER PROBLEM SOLVING

### Overview

This event provides recognition for FBLA members who have a broad base of knowledge and competencies in core hardware and operating system technologies including installation, configuration, diagnostics, preventative maintenance, and basic networking.

This is an individual online test.

### Competencies and Task Lists

<http://www.fbla-pbl.org/docs/ct/FBLA/COMPUTERPROBLEMSOLVING.pdf>

### Website Resources

- A+ Essentials Hardware Practice Questions  
<http://www.simulationexams.com/SampleQuestions/aplus-questions.htm>
- Basic Computer Terminology  
[http://www.zerocut.com/tech/c\\_terms.html](http://www.zerocut.com/tech/c_terms.html)
- How PCs Work  
<http://computer.howstuffworks.com/pc.htm>
- How Operating Systems Work  
<http://computer.howstuffworks.com/operating-system.htm>
- Inside the Computer Case  
<http://www.pccomputernotes.com/inside.htm>

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## COMPUTER PROBLEM SOLVING SAMPLE QUESTIONS

1. What is the most likely consequence of a sudden power outage?
  - a. lost data
  - b. monitor damage
  - c. modem damage
  - d. RAM damage

**Competency:** Personal Computer Components

2. You install a SCSI 2 Ultra host adapter with four drives. After you bring up the system you notice that only two drives are detected. What is the likely cause for this problem?
  - a. the hard drives have been configured with the same SCSI ID
  - b. both drives have failed
  - c. the host adapter has failed
  - d. the devices were not terminated

**Competency:** Personal Computer Components

3. A 3xx POST error code indicates a problem with the:
  - a. mouse
  - b. video adapter
  - c. floppy drive
  - d. keyboard

**Competency:** Personal Computer Components

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4. What is the data rate of a USB port?
- a. 12 Mbps
  - b. 120 Mbps
  - c. 16 Mbps
  - d. 100 Mbps

**Competency:** Personal Computer Components

5. You bring up a newly installed server for the first time; however, **none** of the devices on the SCSI bus are recognized. What is the problem?
- a. One of the SCSI devices is not functioning.
  - b. The SCSI host adapter was set to ID 7.
  - c. The boot device was set to SCSI ID 0.
  - d. The SCSI bus was not properly terminated.

**Competency:** Personal Computer Components

6. In the event of a power outage, what is an UPS designed to do?
- a. keeps computer running until power is restored
  - b. allows the computer to shut down safely
  - c. power notebook computer
  - d. generates power

**Competency:** Personal Computer Components

7. Maximum USB cable length is:
- a. 5 meters
  - b. 25 meters
  - c. 18 meters
  - d. 10 meters

**Competency:** Laptop and Portable Devices

8. The common 4:3 resolution found in notebook monitors that have an addressable pixel resolution of 1024 X 768 and a viewable area of 12.1 to 15 inches is known as:
- a. WXGA
  - b. SXGA
  - c. UXGA
  - d. XGA

**Competency:** Laptop and Portable Devices

9. Which one of the following laser printer components is responsible for using heat and pressure to melt and bond the toner to the paper?
- a. transfer corona wire
  - b. drum
  - c. fusing unit
  - d. pickup roller

**Competency:** Printers and Scanners

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10. What is the best solution to the problem of having a bi-directional driver and printer, but a uni-directional cable?
- disable bi-directional printing in the printer itself
  - disable bi-directional printing in the CMOS
  - get a bi-directional cable and install it
  - disable bi-directional printing in the printer setup

**Competency:** Printers and Scanners

11. Whenever you install new software, XP creates a:
- virtual drive
  - EULA number
  - master boot record
  - restore point

**Competency:** Operating Systems

12. To restore the original registry settings when you first installed Windows, from the Emergency Repair Disk, which option would you use to restore the registry?
- press F for fast repair
  - press A for repair all
  - press R for registry repair
  - press M for manual repair

**Competency:** Operating Systems

13. What's the best way to protect your hard drive data?
- run chkdsk at least once a week
  - run scandisk at least once a week
  - regular backups
  - run a regular diagnostic

**Competency:** Operating Systems

14. Which utility can speed up the performance of your machine?
- DEFRAG
  - MSD
  - CHKDSK
  - SCANDISK

**Competency:** Operating Systems

15. A customer who just bought a computer from you yesterday calls frantically. He tells you the computer says he performed an illegal operation. What do you tell him?
- Bring the computer in for repair.
  - Explain that he told the CPU to do something that the CPU can't do. Tell him not to do it again.
  - Choose OK and restart the program.
  - Tell him he's got a virus.

**Competency:** Operating Systems

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16. When you double click on a short cut that appears on the Windows Desktop why does the application **not** run?
- Desktop shortcuts cannot be used in this way.
  - The shortcut file is corrupt and needs to be replaced.
  - The program file for that shortcut is corrupt or deleted.
  - The short cut has a different icon from the default.

**Competency:** Operating Systems

17. The customer is complaining that the program applications being displayed on the screen are missing lines, details, and other graphics. How should you change the setting?
- increase the horizontal setting on the monitor
  - increase hardware graphics acceleration
  - reduce hardware graphics acceleration
  - decrease the vertical display settings on the monitor

**Competency:** Operating Systems

18. Which one of the following terms refers to the snapshot of the system state that is used during a system restore?
- event log
  - restore point
  - registry backup
  - system console

**Competency:** Operating Systems

19. Which component is **not** part of the Windows Security Center?
- computer Management
  - Windows Firewall
  - automatic updates
  - malware protection

**Competency:** Operating Systems

20. Which utility enables you to reset a computer's network adapter?
- network map
  - Windows Network Diagnostics
  - IPCONFIG
  - local area connection

**Competency:** Operating Systems

21. You want to speed up disk-drive access in DOS by reserving a block of RAM and using it to swap data from the hard disk to RAM. Which one of the following allows you to accomplish this?
- MSCDEX
  - DriveSpace
  - SMARTDRV
  - Virtual Memory

**Competency:** Operating Systems

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22. Which is a difference between a Search Engine and a Directory?
- Search engines have a search box while directories are not searchable.
  - Search engines are free while Directories charge money for their services.
  - Most search engines use spiders while directories do not.
  - Webmaster can submit their resource to a search engine, but not to a directory.

**Competency:** Networks

23. ISDN stands for:
- Interior Sector Direct None
  - Inferior Sector Data Net
  - Internal Select Data Nulls
  - Integrated Services Digital Network

**Competency:** Security

24. The process that verifies that your login and password are correct is:
- ACL
  - verification
  - authentication
  - access control

**Competency:** Security

25. How many keys are used in public key encryption to encrypt and decrypt data?
- four
  - three
  - two
  - one

**Competency:** Security

26. The computer runs for various periods of time before giving an "out of memory" message. The possible reason is a:
- badly seated memory chips
  - bad power supply
  - virus
  - bad hard disk

**Competency:** Security

27. The user says that after downloading a program from the Internet the computer will **not** boot. What is the first thing to ask the user?
- Were any modem errors were reported?
  - Was the downloaded software compatible with your system?
  - Did you scan the file for viruses before you opened it?
  - Is the network used for Internet access?

**Competency:** Security

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28. Which one of the following is **not** listed by the FBI National Computer Crime Squad (NCCS) as a computer crime?

- a. installation of network monitoring software
- b. major computer network intrusion
- c. intrusion of the public phone system
- d. pirated software

**Competency:** Security

29. What term defines a computer crime where one person masquerades as someone else?

- a. spoofing
- b. identity theft
- c. clone
- d. sniffing

**Competency:** Security

30. When setting up a user's workstation, the angle of his/her forearm to his/her body should be at which degree?

- a. 180
- b. 90
- c. 45
- d. 30

**Competency:** Safety and Environmental Issues