

Covers Exams 220-701 and 220-702



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STUDY GUIDE

CompTIA A+ Exam 220-701 (A+ Essentials)
CompTIA A+ Exam 220-702 (Practical Application)

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Assessment Test

1. Which of the following is not considered a system component that can be found inside a computer?
 - A. CPU
 - B. RAM
 - C. PCIe graphics adapter
 - D. Motherboard
2. Which of the following is *not* a physical memory format used in desktop computer systems?
 - A. DRAM
 - B. DIMM
 - C. SIMM
 - D. RIMM
3. Which of the following is a chip that is integrated into PATA drives, as opposed to being mounted on a daughter card?
 - A. Controller
 - B. CPU
 - C. Host adapter
 - D. IDE
4. What is the name of the power connector that is larger than the connector used for floppy diskette drives and that is commonly used with PATA drives?
 - A. AT system connector
 - B. Berg
 - C. Molex
 - D. ATX system connector
5. The _____ is the measurement of the number of pixels an LCD monitor can display without the image appearing distorted.
 - A. Native resolution
 - B. Contrast ratio
 - C. Pixelation
 - D. Base frequency

- 6.** You are installing a new graphics adapter in a Windows Vista system. Which of the following expansion slots are designed for high-speed, 3D graphics adapters? (Choose two.)

 - A.** USB
 - B.** AGP
 - C.** PCI
 - D.** ISA
 - E.** PCIe

- 7.** What is the legacy term for PC Card?

 - A.** CardBus
 - B.** PCMCIA
 - C.** Express Card
 - D.** CardBay

- 8.** Which of the following sleep modes is also known as Standby?

 - A.** S1
 - B.** S2
 - C.** S3
 - D.** S4

- 9.** What is the function of the laser in a laser printer?

 - A.** It heats up the toner so it adheres to the page.
 - B.** It charges the paper so it will attract toner.
 - C.** It creates an image of the page on the drum.
 - D.** It cleans the drum before a page is printed.

- 10.** What is the component called that stores the material that ends up printed to the page in a laser printer?

 - A.** Toner cartridge
 - B.** Ink cartridge
 - C.** Laser module
 - D.** Laser cartridge

- 11.** In Windows XP, how can you start a search for files and folders?

 - A.** Click Start ➤ All Programs ➤ Search.
 - B.** Run SEARCH.EXE at the command prompt.
 - C.** Left-click a directory and choose Find.
 - D.** Click Start ➤ Search.

12. Which of the following is not a hive in the Windows Registry?
- A. HKEY_CLASSES_ROOT
 - B. HKEY_LOCAL_MACHINE
 - C. HKEY_USERS
 - D. HKEY_RESOURCES
13. Which of the following upgrade paths is *not* possible?
- A. Windows 95 to Windows XP
 - B. Windows NT to Windows 2000
 - C. Windows Me to Windows XP
 - D. Windows 98 to Windows XP
14. The program that performs an upgrade from Windows NT to Windows XP is called _____.
- A. INSTALL.BAT
 - B. SETUP.EXE
 - C. WINNT.EXE
 - D. WINNT32.EXE
15. You are troubleshooting a computer, and you have just established a theory of probable cause. What is your next step?
- A. Document findings
 - B. Identify the problem
 - C. Test the theory
 - D. Verify functionality
16. You performed a normal backup on your Windows Vista computer two weeks ago and a differential backup one week ago. If you were to run an incremental backup today, which of the following is true about the files that it would back up?
- A. All files on your computer
 - B. All files that have been modified in the last two weeks
 - C. All files that have been modified in the last week
 - D. All files that have been modified today
17. When a Windows-based application attempts to access memory another program is using, what is the error that will be generated?
- A. Windows protection error
 - B. General protection fault
 - C. Illegal operation
 - D. System lock-up

- 18.** You are sending print jobs to the printer, but nothing is printing. The printer is connected properly and online. What should you do?
- A.** Delete and reinstall the printer.
 - B.** Delete and reinstall Windows.
 - C.** Open Printer Troubleshooting and have it diagnose the problem.
 - D.** Stop and restart the print spooler.
- 19.** Which of the following topologies allows for network expansion with the least amount of disruption for the current network users?
- A.** Star
 - B.** Bus
 - C.** Ring
 - D.** Mesh
- 20.** Which layer of the OSI model has the important role of providing error checking?
- A.** Session layer
 - B.** Presentation layer
 - C.** Application layer
 - D.** Transport layer
- 21.** Which authentication protocol depends on a “secret” known only to the authenticator and that peer?
- A.** PAP
 - B.** SLIP
 - C.** CHAP
 - D.** PPP
- 22.** Which wireless protocol is an improvement on WEP?
- A.** WAP
 - B.** WPA
 - C.** PAW
 - D.** PWA
- 23.** Which of the following computer components can retain a lethal electrical charge even after the device is unplugged? (Choose all that apply.)
- A.** Monitor
 - B.** Processor
 - C.** Power supply
 - D.** RAM

24. Roughly how much time spent communicating should be devoted to listening?
- A. 23 percent
 - B. 40 percent
 - C. 50 percent
 - D. 80 percent
25. After SATA was introduced, what was the retroactive term used for the original ATA specification?
- A. EIDE
 - B. IDE
 - C. PATA
 - D. SCSI
26. When retrieving small metallic parts dropped onto a motherboard, which of the following is the best tool to use?
- A. An extension magnet
 - B. A magnetic screwdriver
 - C. Gravity
 - D. A parts grabber
27. What type of connector does a Mini PCI type IIIB card have?
- A. 52-pin card edge
 - B. 100-pin card edge
 - C. 124-pin card edge
 - D. 144-pin card edge
28. Which LCD component is responsible for providing the right kind of power to the backlight?
- A. HVPS
 - B. Inverter
 - C. Power supply
 - D. Power converter
29. Your laser printer has recently starting printing vertical white lines on documents it prints. What is the most likely cause of the problem?
- A. The print driver is faulty.
 - B. The fuser is not heating properly.
 - C. There is toner on the transfer corona wire.
 - D. There is a scratch on the EP drum.

30. After upgrading to a new printer, you find that the text is coming out garbled and not readable. Which of the following might you suspect?
- A. Corrupt data input
 - B. Incorrect print drivers
 - C. Wrong DMA channel
 - D. Unsupported printer
31. Which command-line utility enables you to verify entries on a DNS server?
- A. NET
 - B. NSLOOKUP
 - C. PING
 - D. NETHELP
32. You are at a command prompt. A file called WORD1.DOC has been hidden by another user, and you want to unhide it. Which command should you use to accomplish this?
- A. ATTRIB +H WORD1.DOC
 - B. ATTRIB -H WORD1.DOC
 - C. ATTRIB -U WORD1.DOC
 - D. ATTRIB +U WORD1.DOC
33. Which of the following Safe Mode options appears only with Windows Vista?
- A. Directory Services Restore Mode
 - B. Repair Mode
 - C. Repair Your Computer
 - D. Enable Boot Logging
34. When you configure a task in Task Scheduler, a trigger must occur before the task is executed. An additional _____ can be configured that, along with the trigger, will determine if the task will run.
- A. Action
 - B. Condition
 - C. Charge
 - D. Duty
35. Which of the following is a company that provides direct access to the Internet for home and business computer users?
- A. ASP
 - B. ISP
 - C. DNS
 - D. DNP

- 36.** Which of the following protocols can be used by a client to access email on a server?
- A.** DNS
 - B.** FTP
 - C.** SMTP
 - D.** IMAP
- 37.** What process involves making an application more difficult for unauthorized individuals to access, exploit, and so on?
- A.** Application hardening
 - B.** Bulletproofing
 - C.** Pharprotecting
 - D.** EAL'ing
- 38.** Which group should you make your mobile users a member of if they need to be able to install, delete, and modify their environment?
- A.** Administrators
 - B.** Power Users
 - C.** Guests
 - D.** Travelers

Answers to Assessment Test

1. C. System components are essential for the basic functionality of a computer system. Many of the landmarks found on the motherboard can be considered system components, even expansion slots, to a degree. What you plug into those slots, however, must be considered peripheral to the basic operation of the system. For more information, see Chapter 1.
2. A. Although DRAM is a very common type of RAM essentially used in all computer systems today, it does not describe a physical memory format. SIMMs, DIMMs, and RIMMs are all technologies on which memory-module manufacturing is based. For more information, see Chapter 1.
3. A. A controller chip is responsible for encoding data to be stored on the disk platters as well as performing geometry translation for the BIOS. Translation is necessary because the true number of sectors per track of the hard disk drive system usually exceeds what is supported by the BIOS. For more information, see Chapter 2.
4. C. The standard peripheral power connector, or Molex connector, is commonly used on larger drives because it allows more current to flow to the drive than does the Berg connector, which is used with floppy diskette drives. For more information, see Chapter 2.
5. A. The native resolution refers to how many pixels an LCD screen can display (across and down) without distortion. The native resolution is based on the placement of the actual transistors that create the image by twisting the liquid crystals. The contrast ratio is the measurement between the darkest color and the lightest color that an LCD screen can display. For more information, see Chapter 3.
6. B, E. Although technically PCI and ISA could be used for graphics adapters, AGP was specifically designed for the use of high-speed, 3D graphic video cards. PCIe offers better performance than AGP for graphics adapters. For more information, see Chapter 3.
7. B. PCMCIA adapters are now called PC Card adapters. The other terms are newer than the PC Card name. For more information, see Chapter 4.
8. C. The S3 sleep mode is called Standby in Windows. Devices in this state consume less power than devices in S1 or S2 but more power than devices in S4. For more information, see Chapter 4.
9. C. The laser creates an image on the photosensitive drum that is then transferred to the paper by the transfer corona. The fuser heats up the toner so it adheres to the page. The transfer corona charges the page, and the eraser lamp cleans the drum before a page is printed. A rubber blade is also used to physically remove toner from the drum. See Chapter 5 for more information.
10. A. Laser printers use toner, which they melt to the page in the image of the text and graphics being printed. A toner cartridge holds the fine toner dust until it is used in the printing process. See Chapter 5 for more information.

11. D. In addition to using the Start menu to start a search, you can also right-click a file or folder and choose Search, or you can click the Search button in the Windows Explorer toolbar. For more information, see Chapter 6.
12. D. There are five basic hives in the Windows registry, and they are HKEY_CLASSES_ROOT, HKEY_CURRENT_USER, HKEY_LOCAL_MACHINE, HKEY_USERS, and HKEY_CURRENT_CONFIG. HKEY_RESOURCES does not exist. For more information, see Chapter 6.
13. A. Windows 95 cannot be directly upgraded to Windows XP. Instead, you must first upgrade to Windows 98 and then to Windows XP (or just do a fresh install of Windows XP). For more information, see Chapter 7.
14. D. To upgrade from a 32-bit OS such as Windows NT, you would use WINNT32.EXE. The program that performs an upgrade from Windows 9x to Windows 2000 is WINNT.EXE. For more information, see Chapter 7.
15. C. The first step is to identify the problem. Once you have done that, you should (in order) establish a theory of probable cause, test the theory, establish a plan of action to resolve the problem, verify full system functionality, and document your findings. See Chapter 8 for more information.
16. B. When you ran a normal backup, the archive bit was cleared for all backed up files. When you ran the differential backup, files that had been modified since the last normal backup were backed up, but the archive bit was not reset. Therefore, the incremental backup will back up all files that have changed since the last normal backup two weeks ago. See Chapter 8 for more information.
17. B. A general protection fault is a common error in Windows. It happens when a program accesses memory that another program is using or when a program accesses a memory address that doesn't exist. Generally, GPFs are the result of sloppy programming; they can often be fixed by clearing the memory with a reboot. For more information see Chapter 9.
18. D. If print jobs are seemingly getting "stuck" in the printer queue, you should stop and restart the print spooler service. There is no Printer Troubleshooting utility that will diagnose printer problems. Deleting and reinstalling is not necessary. For more information see Chapter 9.
19. A. The star topology is the easiest to modify. A physical star topology branches each network device off a central device called a hub, making it easy to add a new workstation. See Chapter 10 for more information.
20. D. A key role of the Transport layer is to provide error checking. The Transport layer also provides functions such as reliable end-to-end communications, segmentation and reassembly of larger messages, and combination of smaller messages into a single larger message. See Chapter 10 for more information.
21. C. CHAP depends on a "secret" known only to the authenticator and that peer. Part of configuring CHAP is setting the shared, predefined secret on both the client and server. For more information, see Chapter 11.

22. B. WPA is an improvement on WEP. For more information, see Chapter 11.
23. A, C. Monitors and power supplies can retain significant electrical charges, even after they're unplugged. Don't open the back of a monitor or the power supply unless you are specifically trained to do so. See Chapter 12 for more information.
24. C. Roughly half the time spent communicating should be devoted to listening. See Chapter 12 for more information.
25. C. IDE (ATA-1) and EIDE (ATA-2 and later) were specific nicknames for the ATA series of standards. Although ATA is technically accurate, it refers to both legacy IDE standards as well as newer SATA standards. Instead of using the term ATA to be synonymous with IDE and EIDE, as had been done in the past, the term PATA was coined, referring to the parallel nature of IDE communications. The term PATA differentiates the IDE and EIDE form of ATA from Serial ATA. SCSI is a related yet completely different type of technology. For more information, see Chapter 13.
26. D. Parts grabbers, also known as three-claw part holders (and sometimes four-claw part holders), are useful in situations within their reach and in which magnetic tools are not appropriate. Gravity, although often effective, can affect other components during construction of a computer system and should not be relied upon in many situations. For more information, see Chapter 13.
27. C. Mini PCI cards have either a 100-pin stacking connector or a 124-pin card edge connector. Type III cards have a 124-pin card edge connector. Mini PCIe cards have a 52-pin card edge connector.
28. B. The inverter provides power to the backlight. The backlight provides light to the LCD screen, and the screen displays the picture.
29. C. White streaks on printouts are most likely caused by toner on the transfer corona wire. Vertical black lines are caused by a scratch or a groove in the EP drum. If the fuser was not heating properly, toner would not bond to the paper, and you would have smearing. Faulty print drivers will cause garbage to print or there will be no printing at all. See Chapter 15 for more information.
30. B. If a printer is using out-of-date or incorrect printer drivers, then the printer may just produce pages of garbled text. The solution is to ensure that the most recent printer drivers are downloaded from the manufacturer's website. See Chapter 15 for more information.
31. B. NSLOOKUP is a command-line utility that enables you to verify entries on a DNS server. For more information, see Chapter 16.
32. B. The ATTRIB command is used to set file attributes. To add attributes, use the plus sign (+). To remove attributes, use the minus sign (-). The hidden attribute is designated by H. See chapter 16 for more information.
33. C. With the exception of Repair Your Computer, which appears only in Windows Vista, the other choices also appear in Windows 2000 and/or Windows XP. For more information, see Chapter 17.

- 34.** B. An additional condition can be configured (such as how long the system needs to be idle, the type of power the system is running on, etc.) to allow the task to run only when it has been met. For more information, see Chapter 17.
- 35.** B. An Internet Service Provider (ISP) provides direct access to the Internet. See Chapter 18 for more information.
- 36.** D. The IMAP and POP3 protocols can be used to retrieve email from mail servers. See Chapter 18 for more information.
- 37.** A. Application hardening involves making an application more difficult for non-authorized individuals to access, exploit, and so on. For more information, see Chapter 19.
- 38.** B. If your mobile users need to be able to install, delete, and modify their environment, make them a member of the Power Users group. For more information, see Chapter 19.