1. 1024 bytes is equal to one
   a. nanobyte.
   b. kilobyte.
   c. megabyte.
   d. gigabyte.

2. Today the standard size of a character/byte is _____ bits.
   a. 2
   b. 4
   c. 8
   d. 10

3. The primary purpose of a ____ is to house the CPU and allow all devices to communicate with it and with each other.
   a. DIMM
   b. PCMCIA
   c. hard drive
   d. motherboard

4. On the bottom of the motherboard, there is a series of embedded wires that make up a bus. What is carried on this bus?
   a. electrical power, control signals, system bus addresses, and data
   b. electrical power, data signals, memory addresses, and data
   c. electrical power, control signals, memory addresses, and data
   d. electrical power, data signals, system bus addresses, and data

5. Power from the CMOS battery enables the CMOS memory to hold ____ when the power to a computer is turned off.
   a. configuration data
   b. memory addresses
   c. motherboard information
   d. control signals

6. The first CPU used in an IBM PC was the ____, which worked at about ____, or ____ clock beats per second.
   a. 4044, 133 MHz, 4,770,000
   b. 4044, 400 MHz, 2,440,000
   c. 8088, 4.77 MHz, 4,770,000
   d. 8088, 200 MHz, 2,440,000

7. ____ is the parallel execution of two threads to improve multitasking performance.
   a. Hyper-Threading
   b. SSE
   c. SIMD
   d. NetBurst

8. Good CPU cooling fans maintain a temperature of
   a. 85-105 degrees F
   b. 90-100 degrees F
   c. 90-110 degrees F
   d. 95-115 degrees F
9. If the CPU requests something from one of the devices and the device is not ready, it issues a ____, a command to the CPU to wait for slower devices to catch up.
   a. hold state
   b. go state
   c. wait state
   d. think state

10. ____ are round plastic or metal pegs that separate the motherboard from the case.
    a. Spacers
    b. Holes
    c. Ports
    d. Slots

11. When a computer becomes low on RAM while running applications, it temporarily uses hard drive space for additional memory. This is known as
    a. thrashing
    b. swapping
    c. recycling
    d. redirecting

12. SDRAM can be used with
    a. 300 MHz 184-pin DIMM.
    b. 350 MHz 168-pin DIMM.
    c. 150 MHz 168-pin DIMM.
    d. 100 MHz 184-pin DIMM.

13. DIMMs have 168 or 184 pins on the edge connector of the board and hold from
    a. 24 MB to 4 GB of RAM.
    b. 4 MB to 256 MB of RAM.
    c. 8 MB to 512 MB of RAM.
    d. 8 MB to 2 GB of RAM.

14. A memory cache temporarily holds data in expectation of what the ____ will request next.
    a. motherboard
    b. ram
    c. CPU
    d. hard drive

15. ____ are locations on the motherboard that contain slots for memory modules.
    a. Expansion cards
    b. Video card slots
    c. PCMCIA cards
    d. Sockets/Slots

16. BIOS stands for
    a. basic input/output system.
    b. board input/output system.
    c. binary input/output system.
    d. bus input/output system.
17. Software intentionally installed on a computer to track users’ activities is called
   a. cookies.
   b. pop-up windows protection.
   c. antivirus.
   d. spyware.

18. Which RAM module has the smallest number of pins?
   a. BEDO
   b. EDO
   c. Conventional
   d. DDR SDRAM

19. RAM is refreshed by the _____, which is part of the chip set on the motherboard.
   a. cache controller
   b. memory engine
   c. CPU
   d. memory controller

20. On the motherboard, cache memory is either on individual chips or on a memory module called a:
    a. COAST
    b. RAS
    c. CAS
    d. DIMM

21. Which of the following access time ratings represents the fastest SIMM?
    a. 90 ns
    b. 80 ns
    c. 60 ns
    d. 70 ns

22. Lori is selecting a case for a computer she is planning to build. What could be one of the reasons why
    she would choose a full-size tower over a desktop case?
    a. compact
    b. more room inside
    c. less room inside
    d. looks good

23. High speed USB is known as USB
    a. 2.2.
    b. 1.1.
    c. 2.0.
    d. 3.0.

24. Inserting and removing Tablet PCs from their stations without having to power them down is called
    a. hot swapping.
    b. abrupt hot swapping.
    c. hot docking.
    d. surprise hot docking.

25. Marty goes through the initial set up and installation routine including installing the synchronization
   software and connecting his new PDA to his PC. What happens next?
26. The feature that allows notebooks to control power usage, allowing a device to turn on a notebook or allowing a notebook to turn on a device, is called
   a. Advanced Control and Power Integration (ACPI).
   b. Advanced Configuration and Power Interface (ACPI).
   c. Power Management.
   d. Power Options.

27. Of the various connections and ports located on the back of a laptop, which one would be unlikely to find?
   a. IDE connector
   b. USB connector
   c. Microphone jack
   d. Compact Flash card slot

28. Dave is having trouble getting his notebook to recognize his PC wireless NIC card. Of the choices below, which one is the most likely to be an effective troubleshooting method Dave could use?
   a. The PC Card may be having an IRQ conflict with another device on the laptop. Go into the Device Manager, right click on the PC Card bus and select Properties to view the resources the card is using. You might have to manually change the resource assignments.
   b. The laptop may not have enough onboard RAM to manage all of the devices and applications running. Try closing any open application software and see if the card is now recognized.
   c. When you first insert the card, it might not be recognized by the BIOS. Download the latest BIOS from the manufacturer's site on the Internet and flash the BIOS.
   d. A program such as anti-virus software could be interfering with the Card Services program. Try disabling that software and see if the PC card is now recognized.

29. Tom has upgraded the operating system on his laptop from Windows 98 to Windows XP and has added a number of application programs required by his company; this has taxed the memory on the laptop. He wants to upgrade the memory on the laptop and discovers that there are four different types of memory his laptop could potentially use. Tom needs a type that uses a 64-bit data path and uses Rambus technology. Which type of memory should Tom use for the upgrade?
   a. credit card memory
   b. 160-pin SO-RIMM
   c. 144-pin SO-DIMM
   d. 72-pin SO-DIMM
30. For the A+ Certification exam, how much should you know about Tablet PCs?
   a. The A+ exams do not expect you to know specific information about Tablet PCs.
   b. The A+ exams expect that you be thoroughly familiar with Tablet PCs.
   c. The A+ exams expect that you be marginally familiar with Tablet PCs.
   d. The A+ exams expect that you be moderately familiar with Tablet PCs.

31. Alice is considering the purchase of a PDA but needs help deciding which features to consider. She is trying to match how she will use it with the features available in commercial products. Of the questions below, which one is least likely to be helpful in assisting Alice in her decision making process?
   a. How easy is the PDA to use?
   b. Can the PDA use e-mail and the Web?
   c. What applications come with the PDA?
   d. Is the operating system software Windows or Linux based?

32. Alice has purchased her PDA and has attached it to her PC in order to synchronize the data between the two devices. She discovers that synchronization is not taking place. Which troubleshooting question below is most likely to help Alice figure out the problem?
   a. Is the patch cable between the PDA and PC connected?
   b. Is there a link light on the PC's connector?
   c. If using USB connectors, is USB enabled in the CMOS setup?
   d. Is the PDA placed too close to a device that generates a strong magnetic field?

33. ____ are sent from a website server to a computer and back to the server (when the site is visited again) to authenticate and maintain site specific information.
   a. Spyware programs
   b. Antivirus programs
   c. Pop-up Windows protection applications
   d. Cookies

34. Which of the following activities ensures your computer could not obtain a virus?
   a. share your files with others
   b. enter data into an Excel spreadsheet
   c. send e-mail
   d. connect to the Internet

35. Security in Windows Vista includes keeping your computer safe from
   a. sender.
   b. harmful software.
   c. invasions of files.
   d. crackers.

36. Harmful software is sometimes known as ____ software.
   a. maladjusted
   b. malignant
   c. malicious
   d. malevolent
37. A ____ can harm your computer by changing your desktop settings, displaying an annoying message, or deleting hard disk files.
   a. hijacker
   b. ad bug
   c. virus
   d. spyware

38. The term ____ is a generic term for anyone who intends to access a computer system without permission.
   a. hijacker
   b. hacker
   c. smacker
   d. cracker

39. A(n) ____ slips from one network connection to another, replicating itself on network computers.
   a. Trojan horse
   b. worm
   c. interferon
   d. intruder

40. The Windows Vista component that scans the computer to prevent, remove, quarantine malicious files, and monitors areas targeted by the spyware is
   a. Sender.
   b. Security Center.
   c. Defender.
   d. Firewall.

41. ____ checks that your browser is using appropriate security settings.
   a. Windows Security Center
   b. Windows Sender
   c. Windows Firewall
   d. Windows Defender

42. The Windows Vista feature that limits application software changes until an administrator authorizes them is called
   a. Windows Sidebar
   b. Windows Firewall
   c. User Account Control
   d. Windows Defender

43. Windows ____ is software that serves as a barrier between your computer and the Internet.
   a. Barrier
   b. CyberFence
   c. Breakthrough
   d. Firewall
44. ________ should be turned on to ensure your computer has the most up-to-date security fixes, critical updates, and operating system downloads.
   a. Windows Control Panel
   b. Disk Clean Up
   c. Disk Defragmenter
   d. Windows Automatic Updates

45. ______ allows users to set up more than one hardware configuration.
   a. Device Manager
   b. Remote Access
   c. Hardware Profiles
   d. Driver Signing

46. CMOS stands for
   b. Chip for Metal Ore Semiconductor.
   c. Common Metal Ore Semiconductor.
   d. Complementary Metal-Oxide Semiconductor.

47. Which of the following is an update option with Windows Update?
   a. downloaded software
   b. download only important viruses
   c. download both important and recommended updates
   d. download e-mail

48. You should scan your entire system for malware
   a. every hour.
   b. once a week.
   c. once a month.
   d. once a day.

49. A common symptom of malware is when your
   a. messages do not appear unexpectedly
   b. computer runs faster than normal
   c. computer runs much slower than normal
   d. programs run fast

50. Grounding or antistatic straps should never be worn when working on
   a. CRT monitors.
   b. hard drives.
   c. motherboards.
   d. Random Access Memory.

51. ______ regulate or condition the power to provide continuous voltage during brownouts.
   a. Data line protectors
   b. Power conditioners
   c. Surge suppressor
   d. UPSs
52. A ____ contains a resistor that prevents electricity from harming you.
   a. ground mat
   b. ground bracelet
   c. static shielding bag
   d. motherboard

53. Data in data cables that cross an electromagnetic field can become corrupted, causing
   a. ESD.
   b. RFI.
   c. data to be erased.
   d. crosstalk.

54. ____ are often proprietary, conserve space, use less power, and produce less heat.
   a. Minitowers
   b. Notebooks
   c. Towers
   d. Slimline desktops

55. The ____ provides backup power in the event that the AC fails completely.
   a. uninterruptible power supply
   b. surge suppressor
   c. power conditioner
   d. data line protector

56. Jeff uses a laptop running Windows 2000/XP. He wants to adjust the power control settings to direct
   the system to go into standby after running on batteries for 15 minutes. To do this, Jeff opens the
   Control Panel, and double-clicks on which applet?
   a. Power Options
   b. Power Management
   c. Power Schemes
   d. Power Controls

57. To extend the life of your laptop battery, some vendors suggest that you
   a. use only Direct Methanol Fuel Cell (DMFC) batteries in your notebook.
   b. don't leave the battery in the notebook while the notebook is powered up and connected to an
      electrical outlet.
   c. recharge the battery when power levels get below 50%.
   d. use only an AC adapter plug to recharge the battery.

58. A tool you can use to see CPU usage and the amount of memory you have is:
   a. RAM Properties
   b. Task Manager
   c. Event Viewer
   d. Hive Properties

59. The CIPHER command is used for file and folder
   a. coding.
   b. encryption.
   c. decompressing.
   d. compressing.
60. What window in Windows 2000/XP can you use to view how much memory is installed?
   a. Drive Management
   b. Desktop Properties
   c. Accessories
   d. System Properties

61. Bill is configuring his Windows 98 SE machine to connect to a small home network. Bill wants to display the network setting on the computer to make sure the IP Address and Subnet Mask are configured correctly to allow a connection to the rest of the network. Which command on the command line interface should Bill issue to get this information?
   a. ipconfig /all
   b. ipconfig
   c. winipcfg /more
   d. winipcfg

62. Gordon is creating a Hardware Profile for his notebook since he uses it both in a docked configuration and when he's traveling. To create a new Hardware Profile, Gordon clicks on Start, opens Control Panel, double-clicks on the System icon, and then clicks on what?
   a. the Hardware Profiles tab
   b. the Hardware tab
   c. the Performance tab
   d. the Device Manager tab

63. Nathaniel is an IT tech and is responsible for maintaining 50 laptops that run a variety of Windows operating systems and Nathaniel is reviewing the knowledge base on how each operating system manages power consumption but discovers that he cannot find this information about one operating system. Which Windows operating system apparently does not have power management features for laptops?
   a. Windows 9x
   b. Windows 98
   c. Windows 2000
   d. Windows NT

64. Windows Vista lets you create backups on
   a. a partitioned hard drive.
   b. the hard disk on which Windows Vista is installed.
   c. tape drive.
   d. CD-ROM drives.

65. Sue wants to make sure that her laptop has the most recent versions of files she needs at the conference. What component of Windows Vista should she use to reconcile the files on her desktop with the versions of the same files on her laptop?
   a. Remote Desktop Connection
   b. Sync Center
   c. Mobility Center
   d. Network and Sharing Center
66. John just installed a new printer on a PC in his home office and now wants to share it in a workgroup with his other home computers. To do this in Windows XP, John clicks Start, Control Panel, and Printers and Faxes. He right-clicks on the printer and selects what?
   a. Properties
   b. Services
   c. Details
   d. Sharing

67. Tina is preparing a presentation to a computer hardware class at her local community college about the laser printer’s cleaning procedure. Of the options below, which would be the most correct statement?
   a. First the sweeper blade cleans the mirror of any residual toner.
   b. First the sweeper strip cleans the blade of any residual toner.
   c. First the stripper blade cleans the drum of any residual toner.
   d. First the sweeper strip cleans the drum of any residual toner.

68. Lisa is setting up a printer that will be shared in a workgroup for a small lab used to teach new techs on different Microsoft operating systems: Windows NT 4.0 Workstation, Windows 95, Windows 98, Windows 2000 Professional, and Windows XP Professional. Lisa needs to make sure that all the printer drivers that work with each of these operating systems are loaded. The machine actually sharing the printer is the Windows XP machine. To accomplish her task, Lisa has right-clicked on the printer icon, selected Properties and Sharing tab. What should she do next?
   a. Click on the Printer Drivers button and make sure the appropriate radio buttons for all the named OS’s are selected.
   b. Click on the Printer Drivers button then click on the “find networked operating systems” button to have the drivers auto detect which machines are connected and load the drivers.
   c. Click on the Additional Drivers button and make sure the radio buttons saying "Windows 2000 and XP", "Windows 9x", and "Windows NT" are selected.
   d. Click on the Additional Drivers button and make sure the appropriate boxes for all the named OS’s are checked.

69. Barb is setting up a printer to be shared. In the printer properties dialog box, which tab will restrict users’ rights to this printer?
   a. Advanced
   b. Sharing
   c. Security
   d. General

70. Tom is doing a major upgrade of his motherboard, processor, and peripheral devices. What might he need to do to accommodate such a large upgrade?
   a. add more RAM
   b. add a second hard drive
   c. update the BIOS
   d. add a faster video card
71. Pete is considering adding a peripheral device but thinks his BIOS may need to be flashed to accommodate this upgrade. When should he flash the BIOS?
   a. before changing the CMOS setup
   b. after installing all new devices
   c. after upgrading the operating system
   d. before installing any devices

72. Jarred tried to install a new copy of Windows Vista on his computer, but because he wasn't using the _____ file system, the install failed.
   a. NTFS
   b. FAT32
   c. UNIX
   d. FAT16

73. Windows Vista _____ creates shadow copies.
   a. Starter
   b. Home Premium
   c. Home Basic
   d. Business

74. When you _____ files, Windows Vista extracts the files you want from the backup and then copies them to a location you specify.
   a. unzip
   b. restore
   c. write
   d. read

75. Windows Vista provides _____ default plans that let you save energy, maximize system performance, or balance energy conservation with system performance.
   a. five
   b. two
   c. three
   d. six

76. By default, Windows Vista lets you adjust all of the following except
   a. printer resolution
   b. power-saving scheme
   c. screen brightness
   d. speaker volume

77. Windows Vista is the _____ operating system
   a. started
   b. Home Premium
   c. latest
   d. longest

78. OSI, a 7-layer model defining network protocols, stands for
   a. Operating System Implementation.
   b. Open System Interconnection.
   c. One Simple Interconnection.
   d. Organizational Systems Implementation.
79. Phil is installing network cabling. He has been told to use cabling capable of Fast Ethernet speeds and that has the least amount of crosstalk. Phil should choose which type of cabling?
   a. CAT-5e  
b. CAT-5  
c. CAT-7  
d. CAT-6

80. James wants to install a networking device that will extend the length to transmit signals farther to accommodate a new cubicle area in his office building. What type of device should James use?
   a. router  
b. switch  
c. repeater  
d. bridge

81. Christopher is installing a wireless network in one of the branch offices of his company. He needs the wireless network to operate at 5.0 GHz with a range of 35 to 50 meters. Which IEEE standard equipment type should Christopher use?
   a. 802.11b  
b. 802.11g  
c. 802.11d  
d. 802.11a

82. Susan is installing network interface cards (NICs) for use in a particular type of network that requires the card contain a laser diode for converting data to light pulses before transmission. What kind of network cards should Susan install?
   a. 100BaseFX  
b. FDDI  
c. Token Ring  
d. Ethernet

83. Randy is studying IP addressing. He reads in his text that IP addresses are 32-bit addresses expressed as a series of four 8-bit numbers separated by periods. When calculating the largest possible 8-bit number of an IP address, the correct answer that he comes up with is
   a. 168.  
b. 256.  
c. 255.  
d. 128.

84. Loreen is planning on making some patch cables to use as spare connectors for the office and is looking in the IT storage area for the appropriate connector type. Which connector type should Loreen select?
   a. RJ-54  
b. RJ-45  
c. RJ-56  
d. RJ-46
85. Which term below is **not** a way of referring to how data is transmitted in "pieces" on the network?
   a. packets
   b. datagrams
   c. envelopes
   d. frames

86. Gregory is upgrading the network speed to 100 Mbps to improve performance and bring the network up to competitive standards. This popular version of Ethernet is also called 100BaseT or
   a. Gigabit Ethernet.
   b. Fast Ethernet.
   c. Terabit Ethernet.
   d. Quick Ethernet.

87. Robert is installing a piece of network equipment designed to link two networks together. This device keeps a routing table that is consulted when the device needs to know how to forward packets to their destinations. What is Robert's device called?
   a. router
   b. bridge
   c. switch
   d. hub

88. Matt is configuring a Windows XP computer to join his small home network. He has four computers at home including two desktops running Windows 98, one desktop running Windows XP Professional and one laptop running Windows 2000 Professional. In the Identification Changes window, after he enters the computer's unique network name, what should he select next?
   a. peer-to-peer
   b. server-client
   c. workgroup
   d. domain

89. Windows Vista includes a basic graphics program called
   a. CorelDRAW.
   b. Paint.
   c. Acrobat.
   d. Illustrator.

90. Marty is configuring a laptop to access his home wireless network. He is at the point of setting the channel number. When reviewing the wireless NICs installation manual, he notices that although his 802.11b NIC can support 14 different channels, because wireless networks are regulated in a certain way in the United States, he can only use channels
   a. 1-6.
   c. 1-9.
   d. 1-11.
91. Alex is having trouble connecting to the Internet. During troubleshooting, Alex finds that he is able to use the ping utility to verify connection to sites on the Internet but can only ping them using their IP addresses and not their domain name. What does Alex conclude based on this information?
   a. The default gateway is down.
   b. DNS services are down.
   c. DHCP services are down
   d. WAN services are down.

92. Darren needs to extend the network he manages by connecting two hubs together. He needs a specific type of cable to accomplish this. Which cable type should Darren choose?
   a. thinnet cable
   b. crossover cable
   c. thicknet cable
   d. patch cable

93. Gary, an IT tech, gets a call from an employee saying he can't print to the network printer. Gary troubleshoots the issue and he suspects that the firmware on the printer's NIC is having trouble communicating with TCP/IP network protocol. Which of the options below will give Gary the best chance to solve this problem?
   a. try restarting the printer to reinitialize the TCP/IP settings.
   b. check the printer's CMOS setup to make sure TCP/IP is enabled.
   c. try flashing the printer's BIOS.
   d. open a command window on the user's computer and try to telnet into the printer.

94. Tractor feeds are most commonly found on
   a. chain printers.
   b. jet printers.
   c. matrix printers.
   d. laser printers.

95. What is the name of the print language developed by Adobe Systems?
   a. Enhanced Metafile Format (EMF)
   b. ASCII
   c. PostScript
   d. PrintScripting

96. After doing some test prints with the laser printer, Derek notices that loose toner is coming out with each printout. This is caused by what?
   a. The fuser is not charged.
   b. The fuser is contaminated with moisture.
   c. The fuser is not getting hot enough.
   d. The fuser is getting too hot

97. Leo is printing a report on his inkjet printer and notices that it is printing only intermittently. Which of the options below is most likely the problem?
   a. The ink nozzles are overflowing.
   b. The ink cartridges are low.
   c. The printer cable has an intermittent short.
   d. Leaving the printer on will cool the inkjets, improving printing.
FBLA Computer Problem Solving Test

98. Carl has been printing to his laser printer for several hours preparing for a major sales presentation he is giving tomorrow. His printer suddenly shuts down. He calls his company's IT help desk and they suspect it may be a problem with the fuser. What does the help desk technician tell Carl the specific issue may be?
   a. The temperature of the rollers exceeded the allowed maximum value.
   b. The temperature of the laser exceeded the allowed maximum value.
   c. The temperature of the mirror exceeded the maximum allowed value.
   d. The temperature of the toner exceeded the maximum allowed value.

99. What is the position an inkjet print head assemblage takes when the printer is not in use?
   a. The head assemblage sits at the center of the printing area which is called the home position.
   b. The head assemblage sits at the far right of the printing area which is called the home position.
   c. The head assemblage sits at the center of the printing area which is called the park position.
   d. The head assemblage sits at the far left of the printing area which is called the park position.

100. What is the acceptable range of pages that can be printed on a dot-matrix printer before it overheats?
   a. 100 to 125
   b. 95 to 110
   c. 70 to 85
   d. 50 to 75