True/False
*Indicate whether the statement is true or false.*

____ 1. The Internet is the world’s largest example of a(n) LAN.
____ 2. A storage device that directly connects to a network is called network peripheral storage.
____ 3. High-bandwidth communications systems, such as cable TV and DSL, are sometimes referred to as peakband.
____ 4. The best-known communications protocol is probably SMTP, which regulates Internet data transport.
____ 5. Data in a(n) wired network travels without the use of network cables.
____ 6. Microwaves are electromagnetic signals that can be aimed in a single direction and have more carrying capacity than radio waves.
____ 7. Wi-Fi signals cannot be disrupted by interference from devices such as microwave ovens, cordless telephones, and baby monitors.
____ 8. A wireless ad hoc network uses a centralized broadcasting device, such as a wireless access point or router.
____ 9. If you are using a file server without its own keyboard or monitor, server configuration software is accessible using a(n) browser.
____ 10. The process of converting ciphertext into plaintext is called encryption.
____ 11. Public key encryption uses one key to encrypt a message and another key to decrypt it.
____ 12. Ethernet is compatible with popular Wi-Fi wireless technology, so it is easy to mix wired and wireless devices on a single network.
____ 13. A network repeater extends the range of a network by restoring signals to maximum strength and retransmitting them.
____ 14. In the early years of personal computers, networks were plentiful.
____ 15. A WAN provides connectivity within a limited geographical area, often within a single building.
____ 16. A process called handshaking allows two communications devices on a network to negotiate their communications protocols.
____ 17. MAC addresses are used for some low-level network functions and can also be employed to establish network security.
____ 18. A packet always travels from the source directly to the destination, never traveling through intermediate routing devices.
____ 19. IP addresses can be assigned by ISPs or system managers.
____ 20. Microwaves cannot be aimed in a single direction and have less carrying capacity than radio waves.
____ 21. A transceiver is a combination of a transmitter and a receiver.
____ 22. Bluetooth is often used to connect workstations to a LAN.
23. A gateway joins two different types of networks.

24. WPA2 makes sure that packets have not been intercepted or tampered with in any way.

25. Most routers supply a WAN port designed for an Internet connection.


27. A cryptographic algorithm is a word, number, or phrase that must be known to encrypt or decrypt a message.

Multiple Choice
Identify the choice that best completes the statement or answers the question.

28. Why would it be important to activate WPA on your network?
   a. To get an IP address.
   b. To encrypt data.
   c. To share your files with other network users.
   d. To designate a printer that could be accessed by any computer on the network.

29. Signals that are sent through the air are regulated by government agencies. To broadcast at most frequencies, a license is required. However, certain frequencies such as ________ are unlicensed and available for use in home networks.
   a. 2.4 GHz and 5.8 GHz
   b. RF and broadband
   c. 54.0 Mbps and 100 Mbps
   d. 192.166.1.337 and 192.168.1.1

30. ________ technology uses two or more antennas to essentially send multiple sets of signals between network devices.
   a. AirPort
   b. Ethernet
   c. Bluetooth
   d. MIMO

31. A home network is an example of a ________.
   a. neighborhood area network
   b. wide area network
   c. local area network
   d. personal area network

32. ________ addresses are used for some low-level network functions and can also be employed to establish network security.
   a. IP
   b. DHCP
   c. ISP
   d. MAC

33. Which of the following is an advantage that wireless networks have over wired networks?
   a. Speed
   b. Security
   c. Mobility
   d. Licensing

34. In Windows 7 a(n) ________ is a collection of trusted networked computers that automatically share files and folders.
   a. library
   b. public library
   c. WEP
   d. homegroup
35. A LAN would be used to ____.
   a. connect personal computers within a very limited geographical area, such as a single building
   b. connect several smaller networks together
   c. provide high-speed connectivity for a metropolitan area
   d. connect devices over a large geographical area

36. A ____ is a public high-speed network capable of voice and data transmission within a range of about 50 miles.
   a. LAN
   b. PAN
   c. MAN
   d. WAN

37. A ____ is a term sometimes used to refer to the interconnection of personal digital devices or consumer electronics within a range of about 30 feet and without the use of wires or cables.
   a. LAN
   b. PAN
   c. MAN
   d. WAN

38. Which of the following, if networked, can be accessed by an authorized LAN user?
   a. scanners
   b. high-capacity storage devices
   c. photo printers
   d. all answers are correct

39. Which of the following is NOT a type of network device?
   a. hub
   b. switch
   c. workstation
   d. router

40. A network ____ usually contains a computer, networked peripheral, or network device.
   a. node
   b. file
   c. application
   d. index

41. To connect to a LAN, a computer requires ____.
   a. a peer-to-peer network
   b. network attached storage
   c. a network interface card
   d. a client

42. The most important network device is a ____.
   a. router
   b. switch
   c. hub
   d. wireless access point

43. A ____ is a physical path or a frequency used for signal transmissions.
   a. logical channel
   b. communications channel
   c. connecting link
   d. node link

44. High-bandwidth communications systems are sometimes referred to as ____.
   a. quickband
   b. broadband
   c. fireband
   d. Internet 2

45. Dial-up Internet access is an example of a(n) ____ communications system.
   a. broadband
   b. fireband
   c. narrowband
   d. Internet 2

46. Two devices on a network might have to negotiate their communications protocols through a process called ____.
   a. handshaking
   b. synchronization
   c. realization
   d. introduction
47. The telephone system uses a technology called ____ which establishes a dedicated, private link between telephones for the duration of a call.
   a. packet switching  
   b. circuit switching  
   c. bus switching  
   d. ring switching

48. In the technology referred to as ____ a message is divided into several parcels that can be routed independently to their destination.
   a. packet switching  
   b. handshaking  
   c. circuit switching  
   d. protocol

49. A protocol known as ____ is designed to automatically distribute IP addresses.
   a. DHCP  
   b. packet switching  
   c. CSMA/CD  
   d. a piconet

50. A wired network is one that uses ____ to connect network devices.
   a. NICs  
   b. radio frequency waves  
   c. cables  
   d. infrared light

51. Which of the following is NOT an advantage of using a wired network?
   a. Increased security  
   b. Fast access  
   c. Simple to configure  
   d. Unlimited mobility

52. Ethernet is a wired technology that is defined by ____ standards.
   a. IEEE 802.3u  
   b. IEEE 802.3  
   c. IEEE 802.3ba  
   d. IEEE 802.3ae

53. On an Ethernet, a ____ is broadcast to every device but is accepted only by the device to which it is addressed.
   a. code  
   b. packet  
   c. band  
   d. node

54. Ethernet networks ____.
   a. are difficult to implement, manage, and maintain  
   b. use a nonproprietary technology, making Ethernet equipment available from a variety of vendors  
   c. do not offer much flexibility in network design  
   d. are not compatible with Wi-Fi wireless networks

55. The original Ethernet standard carried data over a coaxial cable bus topology at ____.
   a. 10 Mbps  
   b. 100 Mbps  
   c. 10 Gbps  
   d. 100 Gbps

56. What is the IEEE designation for the Gigabit Ethernet standard?
   a. IEEE 802.3  
   b. IEEE 802.3ae  
   c. IEEE 802.3u  
   d. IEEE 802.3z

57. Most wireless networks transport data as ____ signals.
   a. infrared  
   b. satellite  
   c. microwave  
   d. RF (radio frequency)

58. Which of the following is a disadvantage of using a wireless network when compared to a wired network?
   a. speed  
   b. range  
   c. security  
   d. all answers are correct
59. Which of the following is NOT true?
   a. When lots of computer game players compete against each other over a LAN, a fast, wired network is desirable.
   b. Speed increases as signal strength decreases.
   c. On wireless connections, signal strength varies depending on distance from the transmitter and obstacles that might interfere with the signal.
   d. Despite interference, wireless networks are fast enough for most applications.

60. The most popular wireless LAN technology is ____.
   a. WUSB (Wireless USB)  
   b. Wi-Fi
   c. Bluetooth
   d. WiMAX

61. ____ is a wireless MAN or WAN technology commonly used for fixed Internet access.
   a. FCC  
   b. WiMAX
   c. Bluetooth
   d. Ethernet

62. In what mode can two Bluetooth devices find each other and exchange passkeys?
   a. distance  
   b. locational
   c. transmission
   d. discovery

63. Which of the following is true about Bluetooth?
   a. It requires cables to connect electronic devices.
   b. It has a very long transmission range of over 500 feet.
   c. It is used exclusively to connect workstations to a LAN.
   d. It forms networks automatically when two or more devices in discovery mode are within range.

64. A Wi-Fi network transmits data as radio waves over ____ frequencies.
   a. 2.4 MHz or 5.8 MHz  
   b. 1.2 MHz or 2.4 MHz
   c. 2.4 GHz or 5.8 GHz
   d. 1.2 GHz or 2.4 GHz

65. Wi-Fi encompasses all of the following standards EXCEPT ____.
   a. 802.11b  
   b. 802.11g
   c. 802.11n
   d. 802.11p

66. Which of the following is NOT true about Wi-Fi standards?
   a. IEEE 802.11b is the original standard.
   b. All of the standards are cross compatible.
   c. IEEE 802.11a is not compatible with 802.11b.
   d. IEEE 802.11n is faster than, but compatible with, b and g.

67. In a wireless ____ network, devices broadcast directly to each other.
   a. ad-hoc  
   b. infrastructure
   c. embedded
   d. SSID

68. ____ technology improves the speed and range of a LAN by using two or more antennae to essentially send multiple sets of signals between network devices.
   a. WiMAX  
   b. MIMO
   c. Zigbee
   d. MAN

69. In some versions of Mac OS, wireless networking is handled by an Apple rendition of Wi-Fi called ____.
   a. Network Neighborhood  
   b. AirPort
   c. Embedded Networking
   d. SSID
To see the hardware listings in order to determine if your Windows computer has Wi-Fi capability, use the Start menu to access and look for a wireless or WLAN adapter.

a. Network Neighborhood  c. Device Manager
b. Wi-Fi Manager   d. Network Infrastructure Utility

Before using your network, you should adjust the configuration settings of the to make sure your network is secure.

a. gateway  c. bridge
b. router  d. repeater

In areas where there are overlapping wireless networks, such as in a city or on a college campus, help you log in to the right network, rather than a network run by a hacker who will try to suck important information off your computer as soon as you connect.

a. topographical maps  c. ISPs
b. routers  d. SSIDs

Most routers ship with a(n) predefined by the manufacturer.

a. gateway  c. SSID
b. ISP  d. topology

Computers without Wi-Fi or those with slow Wi-Fi protocols can be upgraded using a Wi-Fi .

a. FireWire  c. port
b. adapter  d. cable

A is a network device that extends a wired network by adding additional ports.

a. bridge  c. switch
b. hub  d. repeater

A is a network device that intelligently facilitates communication among multiple devices on a network.

a. bridge  c. switch
b. hub  d. repeater

A is a network device that extends the range of a network by restoring signals to maximum strength and retransmitting them.

a. bridge  c. switch
b. hub  d. repeater

A is a network device that connects two similar networks.

a. bridge  c. switch
b. repeater  d. hub

Wireless scrambles the data transmitted between wireless devices and then unscrambles the data only on devices that have a valid key.

a. polymorphism  c. protected access
b. concatenation  d. encryption

The original wireless encryption was called .

a. WEP  c. WPA2
b. WPA  d. WSA

also referred to as personal mode, is a type of WPA used on most home networks.

a. WSA  c. WEP2
b. WEP  d. PSK
82. A(n) ____ is the basis for scrambling and unscrambling the data transmitted between wireless devices.
   a. active link
   b. wireless encryption key
   c. PSK
   d. algorithm

83. To connect a phone or other device to a network, make sure that ____ is enabled, then wait for the device
to sense the network, and when asked, enter the encryption key.
   a. NIC
   b. Wi-Fi
   c. WIMAX
   d. Ethernet

84. On a home network, file ____ allows you to view and copy photos, for example, from your desktop
computer to a tablet computer.
   a. sharing
   b. porting
   c. routing
   d. logging

85. Which of the following is NOT a factor upon which your ability to share files with other devices on a network
depends?
   a. which devices your computer can discover
   b. how long you have been using your computer
   c. whether other network devices can discover your computer
   d. what others are allowed to do with the files they can access

86. To see a list of devices on your network, you can use your operating system's ____ utility.
   a. file server
   b. file management
   c. destination
   d. public

87. If you connect to a network and do not get a list of other devices, check your computer's network ____
setting.
   a. Network Neighborhood
   b. My Network Places
   c. Local Area Connection
   d. discovery

88. A ____ server is a computer whose primary purpose is to be a repository for files that can be accessed by
network workstations.
   a. file
   b. print
   c. document
   d. backup

89. To configure a file server, open a browser from any workstation, enter the file server's ____ address, and
provide the administrator ID and password.
   a. SSID
   b. MAC
   c. LAN
   d. IP

90. ____ transforms a message in such a way that its contents are hidden from unauthorized readers.
   a. Encryption
   b. Encapsulation
   c. Concatenation
   d. Polymorphism

91. A message that has not been encrypted is referred to as ____.
   a. ciphertext
   b. plaintext
   c. keytext
   d. weak text

92. An encrypted message is referred to as ____.
   a. keytext
   b. strong text
   c. ciphertext
   d. plaintext

93. The process of converting ciphertext into plaintext is called ____.
   a. right-texting
   b. decryption
   c. war driving
   d. AES
94. A ____ is a procedure for encrypting or decrypting a message.
   a. nexus     c. cryptographic index
   b. cryptographic algorithm     d. message

95. A ____ is a word, number, or phrase that must be known to encrypt or decrypt a message.
   a. cryptographic index     c. cryptographic key
   b. rank     d. message

96. In ____ key encryption, the key used to encrypt a message is also used to decrypt the message.
   a. balanced     c. PKE
   b. symmetric     d. PGP

97. ____ encryption uses one key to encrypt a message but another key to decrypt the message.
   a. Symmetric     c. Asymmetric
   b. Public key     d. Brute force

98. ____ software may be used by personal computer users when they want to encrypt e-mail or other documents.
   a. SMTP     c. HTTP
   b. PGP     d. URL

99. ____ is a crucial technology for e-commerce and e-mail.
   a. Symmetric key encryption     c. Public key encryption
   b. Network security key     d. all answers are correct

100. With PGP, to whom do you send the private key?
    a. People whom you have authorized to send you plaintext messages
    b. People whom you have authorized to send you encrypted messages
    c. Anyone with whom you expect to have e-mail correspondence
    d. No one