CHAPTER 8:

NETWORKING AND DIGITAL COMMUNICATION

Multiple Choice:

1. A basic computer network can be described as:

    A. a minimum of five computers linked together.

    B. a number of palmtop computers.

    C. two or more computers that are linked together.

    D. the use of satellites linking computers together.

Answer: C   **Reference:** Basic Network Anatomy   **Difficulty:** Easy

2. The three essential components of every computer system include all of the following EXCEPT:

    A. software.

    B. hardware.

    C. people.

    D. cables.

Answer: D   **Reference:** Basic Network Anatomy   **Difficulty:** Easy

3. All of the following are advantages of using a computer network EXCEPT that it:

    A. reduces costs when hardware is shared.

    B. promotes independence so users have exclusive control over their own data and applications.

    C. saves money when software is shared.

    D. enables data sharing, increasing efficiency and productivity.

Answer: B   **Reference:** Basic Network Anatomy   **Difficulty:** Easy

4.   All of the following statements are true EXCEPT:

   A. Wireless networks are convenient.

   B. Wireless networks are generally slower than wired LANs.

   C. Wireless networks use radio transmitters.

   D. Wireless networks are generally faster than wired networks.

Answer: D   **Reference:** Networks Near and Far   **Difficulty:** Moderate

5.   A(n) _____ broadcasts messages to all devices connected to a LAN.

   A. switch

   B. port

   C. hub

   D. node

Answer: C   **Reference:** Networks Near and Far   **Difficulty:** Moderate

6.   In a local area network, a _____ only transmits data to the destination node.

   A. switch

   B. port

   C. hub

   D. router

Answer: A   **Reference:** Networks Near and Far   **Difficulty:** Moderate

7.   LAN stands for:

   A. local area nodes.

   B. logical arrangement of networks.

   C. local area network.

   D. linked-area network.

Answer: C   **Reference:** Networks Near and Far   **Difficulty:** Easy

8. The primary difference between a LAN and a WAN is the:

    A. number of software programs available.

    B. geographical area.

    C. variety of hardware devices.

    D. number of hardware devices.

Answer: B   **Reference:** Networks Near and Far   **Difficulty:** Moderate

9. Each individual computer and networked peripheral attached to a LAN is a:

    A. node.

    B. GPS receiver.

    C. router.

    D. mesh network.

Answer: A   **Reference:** Networks Near and Far   **Difficulty:** Easy

10. Standard telephone cables containing copper wires are known as _____ cable.

    A. coaxial

    B. fiber-optic

    C. Wi-Fi

    D. twisted pair

Answer: D   **Reference:** Networks Near and Far   **Difficulty:** Moderate

11. All of the following are true of a wireless network EXCEPT:

    A. computers at the nodes can run different operating systems.

    B. generally faster than wired LAN.

    C. less trouble to install.

    D. convenient for users that work in many locations.

Answer: B   **Reference:** Networks Near and Far   **Difficulty:** Moderate

12. MAN stands for:

    A. metropolitan area network.

    B. multifunction area network.

    C. metropolitan arranged network.

    D. manufactured arrangement of networks.

Answer: A   **Reference:** Networks Near and Far   **Difficulty:** Easy

13. The collection of common pathways between networks on a WAN is known as a:

    A. node.

    B. hub.

    C. backbone.

    D. router.

Answer: C   **Reference:** Networks Near and Far   **Difficulty:** Challenging

14. The device or program that forwards messages between networks is known as a:

    A. bridge.

    B. router.

    C. backbone.

    D. gateway.

Answer: B   **Reference:** Networks Near and Far   **Difficulty:** Moderate

15. A(n) _____ is often used to set up a temporary communications system that requires no centralized router.

    A. extranet

    B. Ethernet

    C. mesh network

    D. intranet

Answer: C   **Reference:** Networks Near and Far   **Difficulty:** Moderate

16.   The U.S. Department of Defense uses a(n) _____, which is a specialized network used to determine locations, maps, and directions using signals from satellites that are orbiting the Earth.

    A. mesh network

    B. NIC

    C. Ethernet

    D. GPS

Answer: D   **Reference:** Specialized Networks: From GPS to Financial Systems   **Difficulty:** Easy

17.   The system of satellites used to determine any position on the Earth is known as:

    A. GPS.

    B. LAN.

    C. Wi-Fi.

    D. MAN.

Answer: A   **Reference:** Specialized Networks: From GPS to Financial Systems   **Difficulty:** Easy

18.   A set of parallel wires that carries digital signals among a computer's components is called a(n):

    A. peripheral.

    B. port.

    C. bus.

    D. medium.

Answer: C   **Reference:** The Network Interface   **Difficulty:** Moderate

19.   In the 1970s, Xerox developed _____, which continues to be a popular networking architecture.

    A. Wi-Fi

    B. instant messaging

    C. extranet

    D. Ethernet

Answer: D   **Reference:** The Network Interface   **Difficulty:** Moderate

20. Remote access means that a:

    A. computer is linked directly to a network.

    B. transaction is added to a batch that will be processed on a remote computer.

    C. user is connecting to a network through a phone line, television cable, or wireless link.

    D. LAN is set up in an office in a remote location.

Answer: C   **Reference:** The Network Interface   **Difficulty:** Easy

21. A port is a:

    A. socket that enables information to move in and out.

    B. hardware device that allows connection to the Internet.

    C. peripheral device attached to a computer.

    D. virtual memory location.

Answer: A   **Reference:** The Network Interface   **Difficulty:** Easy

22. A newer PC will likely have an Ethernet _____ on the main circuit board so it can directly connect to an Ethernet network.

    A. router

    B. network interface card

    C. port

    D. jack

Answer: C   **Reference:** The Network Interface   **Difficulty:** Moderate

23. A(n) _____ port is faster and more flexible than a traditional serial or parallel port.

    A. peripheral

    B. USB

    C. monitor

    D. server

Answer: B   **Reference:** The Network Interface   **Difficulty:** Moderate

24. NIC stands for:

    A. network internal card.

    B. newer industrial computer.

    C. networking Internet connection.

    D. network interface card.

Answer: D   **Reference:** The Network Interface   **Difficulty:** Moderate

25. A(n) _____ adds a special serial port to a computer so it can be directly connected to a network.

    A. GPS

    B. NIC

    C. modem

    D. hub

Answer: B   **Reference:** The Network Interface   **Difficulty:** Easy

26. The NIC controls the flow of data between the computer's RAM and the:

    A. network cable.

    B. Internet.

    C. hard drive.

    D. CD drive.

Answer: A   **Reference:** The Network Interface   **Difficulty:** Easy

27. A(n) _____ signal is represented by a continuous wave.

    A. analog

    B. digital

    C. bandwidth

    D. baud

Answer: A   **Reference:** Communication á la Modem   **Difficulty:** Moderate

28. A(n) _____ converts a message from digital to analog or from analog to digital.

    A. hub

    B. modem

    C. switch

    D. Ethernet

Answer: B   **Reference:** Communication á la Modem   **Difficulty:** Easy

29. A voice message must be converted to a(n) _____ signal so it can be stored on a computer's hard drive.

    A. Wi-Fi

    B. bitmapped

    C. digital

    D. analog

Answer: C   **Reference:** Communication á la Modem   **Difficulty:** Moderate

30. _____ is defined as millions of bits.

    A. Megabytes

    B. Megabits

    C. Kilobits

    D. Kilobytes

Answer: B   **Reference:** Broadband Connections   **Difficulty:** Moderate

31. The term, _____, refers to the amount of information transmitted through a communication medium in a given amount of time.

    A. dpi

    B. bit depth

    C. bandwidth

    D. broadband

Answer: C   **Reference:** Broadband Connections   **Difficulty:** Moderate

32. A Broadband connection could be any of the following EXCEPT:

    A. cable modem.

    B. DSL.

    C. wireless connection.

    D. standard phone modem.

Answer: D   **Reference:** Broadband Connections   **Difficulty:** Easy

33. A(n) _____ cable uses light waves to transmit multimedia and voice data.

    A. copper

    B. twisted-pair

    C. fiber-optic

    D. coaxial

Answer: C   **Reference:** Fiber-Optic Connections   **Difficulty:** Easy

34. A(n) _____ uses radio waves to carry information at high speed.

    A. cable modem

    B. fiber-optic cable

    C. wireless connection

    D. phone cable

Answer: C   **Reference:** Wireless Network Technology   **Difficulty:** Moderate

35. A personal area network is possible because of the wireless technology known as:

    A. USB.

    B. FireWire.

    C. Bluetooth.

    D. IEEE.

Answer: C   **Reference:** Wireless Network Technology   **Difficulty:** Moderate

36. _____ is new technology currently available in Japan, much of Europe, and some major US cities. It uses high-bandwidth connections to communicate multimedia over wireless networks.

    A. 4GL

    B. PDA

    C. 3G

    D. Wi-Fi

Answer: C   **Reference:** Wireless Network Technology   **Difficulty:** Easy

37. The rules for how data is exchanged between network nodes is known as a(n):

    A. protocol.

    B. algorithm.

    C. procedure.

    D. code of ethics.

Answer: A   **Reference:** Communication Software   **Difficulty:** Moderate

38. A _____ is a high-speed, high-end computer that shares data and other resources with client computers.

    A. server

    B. super computer

    C. client

    D. PDA

Answer: A   **Reference:** Communication Software   **Difficulty:** Moderate

39. A _____ is a configuration that allows every computer on the network to act as both a client and a server.

    A. client/server model

    B. host system

    C. server network

    D. peer-to-peer network

Answer: D   **Reference:** Communication Software   **Difficulty:** Easy

40. _____ software enables a computer to function as a simple input/output device for sending messages to a host computer.

    A. Multimedia

    B. Compression

    C. Data translation

    D. Terminal emulation

Answer: D   **Reference:** Communication Software   **Difficulty:** Easy

41. The _____ stores data and software that can to be shared by several users.

    A. file server

    B. mainframe

    C. print server

    D. client

Answer: A   **Reference:** The Network Advantage   **Difficulty:** Moderate

42. Using a PC to copy software or data from a server, it is known as:

    A. uploading.

    B. terminal emulating.

    C. downloading.

    D. server sharing.

Answer: C   **Reference:** The Network Advantage   **Difficulty:** Moderate

43. When a business can legally copy software to all of the computers they own, the company has a(n) _____ license:

    A. site

    B. upload

    C. file server

    D. groupware

Answer: A   **Reference:** The Network Advantage   **Difficulty:** Moderate

44. A(n) _____ is code embedded as a one-pixel graphics file in a Web page or email message.

    A. Web dot

    B. Web bug

    C. cookie

    D. virus

Answer: B   **Reference:** Interpersonal Computing   **Difficulty:** Moderate

45. Most web-based email systems use _____ to retrieve mail and store the messages in a folder on a remote mail server.

    A. Listserv

    B. POP

    C. groupware

    D. P2P

Answer: B   **Reference:** The Many Faces of Email   **Difficulty:** Moderate

46. A(n) _____ is an invisible piece of code that notifies the sender that an email was opened and may even record other information about the user's computer or email software.

    A. applet

    B. pop-up

    C. Web bug

    D. phish

Answer: C   **Reference:** The Many Faces of Email   **Difficulty:** Moderate

47. A worldwide public newsgroup available on the Internet is:

    A. TCP/IP

    B. USENET

    C. Listserv

    D. NIC

Answer: B   **Reference:** Newsgroups   **Difficulty:** Moderate

48. Asynchronous communication is when the sender and recipient:

    A. must be online at the same time.

    B. do not use the same operating system.

    C. do not have to be online at the same time.

    D. use different software but are able to communicate through the Internet.

Answer: C   **Reference:** Instant Messaging and Teleconferencing: Real-Time Communication
Difficulty: Moderate

49. IM stands for:

    A. internal messaging.

    B. instant messaging.

    C. international market.

    D. instantaneous messages.

Answer: B   **Reference:** Instant Messaging and Teleconferencing: Real-Time Communication
Difficulty: Easy

50. Graphical bodies used to represent a person in a virtual meeting place are known as:

    A. agents.

    B. emulators.

    C. avatars.

    D. Web bugs.

Answer: C   **Reference:** Instant Messaging and Teleconferencing: Real-Time Communication
Difficulty: Moderate

51. _____ software and hardware allows a PC to act like a speakerphone.

    A. Telephony

    B. Instant messaging

    C. Video conferencing

    D. Avatar

Answer: A   **Reference:** Computer Telephony   **Difficulty:** Moderate

52. MMORPGs are:

    A. protocols for the internet.

    B. software standards for wireless technology

    C. circuit boards for enhanced handling of multimedia

    D. online role-playing games involving hundreds of thousands of players

Answer: D   **Reference:** Social Networking and Information Sharing   **Difficulty:** Moderate

53. Unwanted junk email is known as:

    A. IM.

    B. telephony.

    C. spam.

    D. avatar.

Answer: C   **Reference:** Online Risks   **Difficulty:** Easy

54. _____ is designed to capture sensitive financial information from the person visiting a Web site.

    A. IM

    B. Phishing

    C. VoIP

    D. MMORPG

Answer: B   **Reference:** Email Issues   **Difficulty:** Moderate

55. A _____ helps block unauthorized access to a computer.

    A. bridge

    B. VPN

    C. WEP

    D. firewall

Answer: D   **Reference:** Wireless Issues   **Difficulty:** Moderate

56. The _____ encryption scheme improves the security of wireless networks.

    A. Ethernet

    B. phishing

    C. VPN

    D. WEP

Answer: D   **Reference:** Wireless Issues   **Difficulty:** Moderate

57. _____ is a secure electronic "tunnel" through the Internet that prevents unauthorized access or eavesdropping.

    A. NOS

    B. VPN

    C. Bluetooth

    D. MMORPG

Answer: B   **Reference:** Wireless Issues   **Difficulty:** Moderate

Fill in the Blank:

58.   _____ is long-distance electronic communications in a variety of forms.

Answer: Telecommunications   **Reference:** Arthur C. Clark's Magical Prophecy   **Difficulty:** Moderate

59.   A computer _____ is a system where two or more computers are linked together.

Answer: network   **Reference:** Basic Network Anatomy   **Difficulty:** Easy

60.   The three essential components of every computer system are hardware, software, and _____.

Answer: people   **Reference:** Basic Network Anatomy   **Difficulty:** Moderate

61.   A(n) _____ network links two or more LANs within a city.

Answer: metropolitan area   **Reference:** Networks Near and Far   **Difficulty:** Moderate

62.   In a WAN, the collection of common pathways is called the network's _____.

Answer: backbone   **Reference:** Networks Near and Far   **Difficulty:** Moderate

63.   A(n) _____ network is a group of computers connected over a long distance.

Answer: wide area   **Reference:** Networks Near and Far   **Difficulty:** Easy

64.   A(n) _____ is a device or program used to push traffic through a series of networks.

Answer: router   **Reference:** Networks Near and Far   **Difficulty:** Moderate

65.   A(n) _____ network allows a message to jump from wireless device to wireless device until it finds the correct destination.

Answer: mesh   **Reference:** Networks Near and Far   **Difficulty:** Moderate

66.   The most common cabling for a LAN is _____.

Answer: twisted pair   **Reference:** Networks Near and Far   **Difficulty:** Challenging

67.   A(n) _____ is a computer or shared peripheral attached to a network.

Answer: node   **Reference:** Networks Near and Far   **Difficulty:** Moderate

68.   A(n)_____ network connects computers using radio or infrared transmitters connected to network ports.

Answer: wireless   **Reference:** Networks Near and Far   **Difficulty:** Moderate

69.   A(n)_____ can pinpoint any location in the world.

Answer: GPS   **Reference:** Specialized Networks   **Difficulty:** Moderate

70. A(n) _____ is a group of wires on a computer's circuit board used to carry digital signals.

Answer: bus   **Reference:** The Network Interface   **Difficulty:** Moderate

71. A(n) _____ is a socket that allows data to pass in and out.

Answer: port   **Reference:** The Network Interface   **Difficulty:** Moderate

72. USB stands for _____.

Answer: Universal Serial Bus   **Reference:** The Network Interface   **Difficulty:** Moderate

73. A(n) _____ card on the main circuit board adds an additional port to the computer so it can connect to a network.

Answer: network interface card   **Reference:** The Network Interface   **Difficulty:** Moderate

74. Most new computers don't need a NIC because they have a(n) _____ port on the main circuit board.

Answer: Ethernet   **Reference:** The Network Interface   **Difficulty:** Challenging

75. A continual wave of bits transmitted through a device is known as a(n) _____ signal.

Answer: analog   **Reference:** Communication á la Modem   **Difficulty:** Moderate

76. A(n) _____ is a hardware device that connects a computer to a telephone line.

Answer: modem   **Reference:** Communication á la Modem   **Difficulty:** Moderate

77. Bps stands for _____.

Answer: bits per second   **Reference:** Communication á la Modem   **Difficulty:** Easy

78. _____ is the quantity of information that can be transmitted through a communication medium in a given amount of time.

Answer: bandwidth   **Reference:** Broadband Connections   **Difficulty:** Moderate

79. Bandwidth is measured in kilobits or _____.

Answer: megabits   **Reference:** Broadband Connections   **Difficulty:** Moderate

80. _____ cables are faster than DSL or cable modems.

Answer: Fiber-optic   **Reference:** Fiber-Optic Connections   **Difficulty:** Moderate

81. Many laptops and handheld computers have _____ ports that can send and receive digital information over short distances without the use of cables.

Answer: infrared **Reference:** Wireless Network Technology **Difficulty:** Moderate

82. A(n) _____ is a set of rules for efficiently transmitting data from one network node to another.

Answer: protocol **Reference:** Communication Software **Difficulty:** Moderate

83. _____ software sends requests from the user to the server.

Answer: Client **Reference:** Communication Software **Difficulty:** Moderate

84. A(n) _____ accepts, prioritizes, and processes print jobs from many computers.

Answer: print server **Reference:** The Network Advantage **Difficulty:** Moderate

85. Copying software or data files from a client computer to a server is known as _____.

Answer: uploading **Reference:** The Network Advantage **Difficulty:** Easy

86. Software designed to allow several networked users to work on the same document at the same time is known as _____.

Answer: groupware **Reference:** The Network Advantage **Difficulty:** Moderate

87. When a Microsoft Word document or picture file is included along with an email message, it is known as a(n) _____.

Answer: attachment **Reference:** The Many Faces of Email **Difficulty:** Easy

88. Most Web-based email systems use _____ protocol to retrieve mail and store the messages in a folder.

Answer: Post Office **Reference:** The Many Faces of Email **Difficulty:** Moderate

89. A(n) _____ is an invisible piece of code that silently notifies the sender when the message was opened and may also report other information from the user's computer.

Answer: Web bug **Reference:** The Many Faces of Email **Difficulty:** Moderate

90. A(n) _____ list is used to send an email message to many people.

Answer: mailing **Reference:** Mailing Lists **Difficulty:** Easy

91. A(n) _____ is an online public discussion on a particular subject.

Answer: newsgroup **Reference:** Newsgroups **Difficulty:** Easy

92. _____.is a network of newsgroups available worldwide through the Internet.

Answer: USENET **Reference:** Newsgroups **Difficulty:** Moderate

93. Mailing lists and newsgroups use _____ communications so that the sender and recipient do not have to be logged on at the same time.

Answer: asynchronous   **Reference:** Instant Messaging and Teleconferencing: Real-Time Communication
Difficulty: Moderate

94. When a participant in a chat room represents himself using a cartoon character, he is using a(n) _____.

Answer: avatar   **Reference:** Instant Messaging and Teleconferencing: Real-Time Communication
Difficulty: Moderate

95. When a company links all their computers with the telephone system, the company is embracing a growing trend called _____ integration.

Answer: computer telephony   **Reference:** Computer Telephony   **Difficulty:** Moderate

96. With _____, phone calls are carried over the Internet instead of using the public phone network.

Answer: Internet telephony (VoIP)**Reference:** Computer Telephony   **Difficulty:** Moderate

97. _____ games like EverQuest II and World of WarCraft support hundreds of thousands of people playing games in an online virtual world.

Answer: MMORPG   **Reference:** Social Networking and Information Sharing **Difficulty:** Challenging

98. _____ is an online encyclopedia that lets anyone with an Internet connection modify or add to its content.

Answer: Wikipedia   **Reference:** Social Networking and Information Sharing **Difficulty:** Challenging

99. _____ is a collaborative information resource of photographs available on the Web.

Answer: Flickr   **Reference:** Social Networking and Information Sharing **Difficulty:** Challenging

100. A(n) _____ Web site is designed to collect confidential and sensitive information from visitors to the site.

Answer: phishing   **Reference:** Email Issues   **Difficulty:** Moderate

101. Unsolicited email is called _____.

Answer: spam   **Reference:** Email Issues   **Difficulty:** Easy

102. Publicly accessible wireless access points are known as _____.

Answer: hot spots   **Reference:** Wireless Issues   **Difficulty:** Easy

103. To enable customers to check their email using their laptop, a coffee shop may provide a _____ which is a wireless access point.

Answer: hot spot   **Reference:** Wireless Issues   **Difficulty:** Moderate

104. _____ is an encryption scheme providing security for data transmission on a wireless network.

Answer: WEP   **Reference:** Wireless Issues   **Difficulty:** Moderate

105. A(n) _____ network provides a "tunnel" through the Internet preventing unauthorized access or eavesdropping.

Answer: virtual private   **Reference:** Wireless Issues   **Difficulty:** Moderate

Matching:

106. Match the following terms to their meanings:

I.	modem	A.	continuous wave of bits
II.	bandwidth	B.	device used to connect computer to phone line
III.	blog	C.	secure network that uses encryption
IV.	broadband	D.	transmission capacity measured in kilobits or megabits per second
V.	analog signal	E.	personal Web page that can be used for a personal diary
VI.	VPN	F.	fast Internet connection like DSL
VII.	NIC	G.	installation adds port designed to connect directly to a network

Answers: B, D, E, F, A, C, G   **Reference:** Multiple locations   **Difficulty:** Moderate

107. Match the following [number] terms to their meanings:

    I.   port   A. popular wireless LAN technology

    II. TCP/IP   B. online role playing games involving hundreds of thousands of participants

    III. MMORPG   C. socket used when information passed in and out of the system

    IV. Wi-Fi   D. web site that permits anyone to alter its content

    V. wiki   E. rules for data exchange over the Internet

Answer: C, E, B, A, D   **Reference:** Multiple locations   **Difficulty:** Moderate