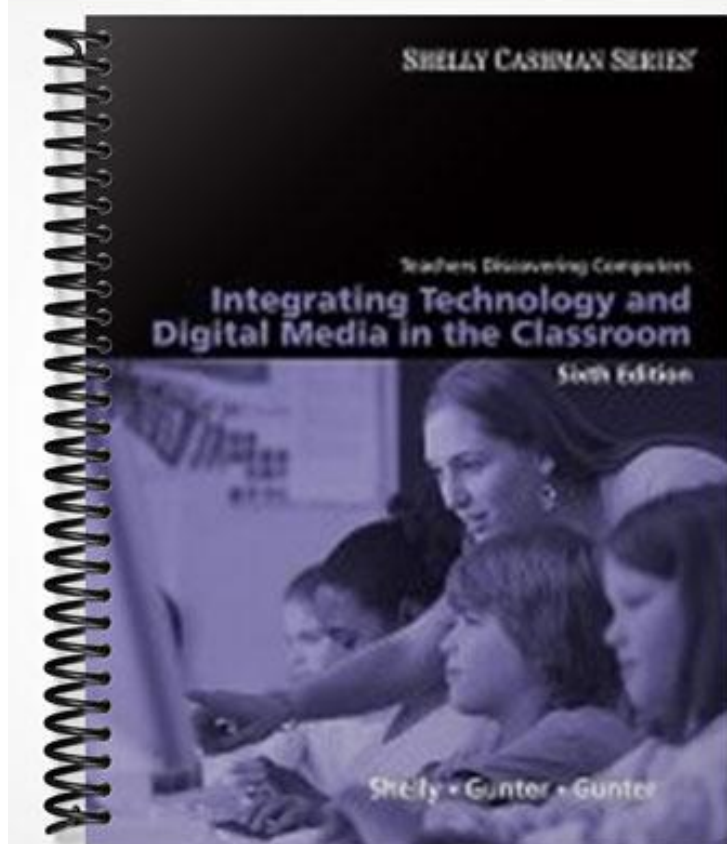
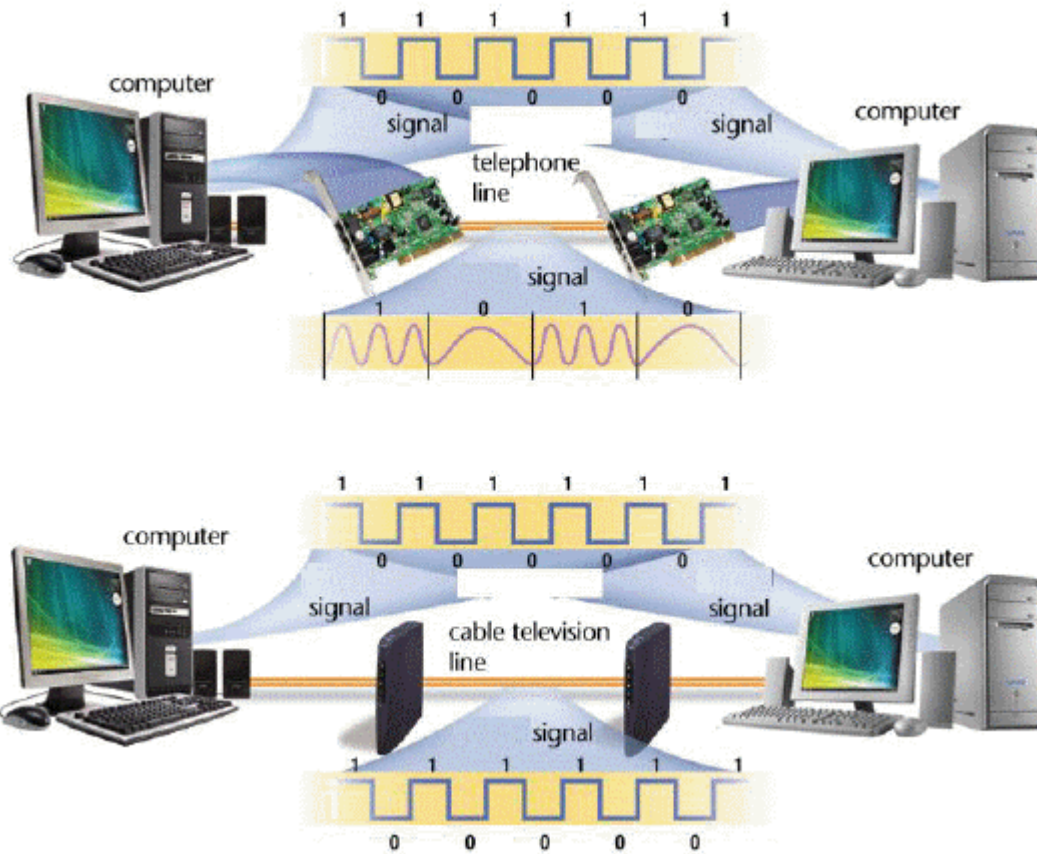


TEST BANK



Chapter 2: Communications, Networks, the Internet, and the World Wide Web

MULTIPLE CHOICE



1. A ____ is the path that data follows as data is transmitted as shown in the accompanying figure.
- a. communications channel
 - b. transmission medium
 - c. twisted-pair cable
 - d. all of the above

ANS: A PTS: 1 REF: 62

2. ____ signals like those shown in the accompanying figure are individual electrical pulses that a computer uses to represent data.
- a. Analog
 - b. Bi-directional
 - c. Digital
 - d. Modem

ANS: C PTS: 1 REF: 62

3. ____ signals like those shown in the accompanying figure are signals that are comprised of a continuous electrical wave.
- a. Analog
 - b. Bi-directional
 - c. Digital
 - d. Modem

ANS: A PTS: 1 REF: 62

4. For telephone lines to carry data, a communications device called a(n) ____ like the one in the accompanying figure is used to convert digital signals to analog signals.

- a. converter
- b. conversion device
- c. analog converter
- d. modem

ANS: D

PTS: 1

REF: 62



5. Networked computers like those in the accompanying figure contain a(n) ____ to connect directly to a network.

- a. modem
- b. conversion card
- c. network interface card
- d. analog/digital interface card

ANS: C

PTS: 1

REF: 64

6. The accompanying figure is an example of a ____ network.

- a. wide area
- b. interface
- c. digital
- d. home

ANS: D

PTS: 1

REF: 64

7. Unlike the network in the accompanying figure, a(n) ____ covers a large geographical region.

- a. local area network
- b. wide area network
- c. analog network
- d. all of the above

ANS: B

PTS: 1

REF: 64

8. A ____ LAN is a LAN that uses media such as radio waves rather than wires.

- a. wireless
- b. wirefree
- c. wired
- d. wire

ANS: A

PTS: 1

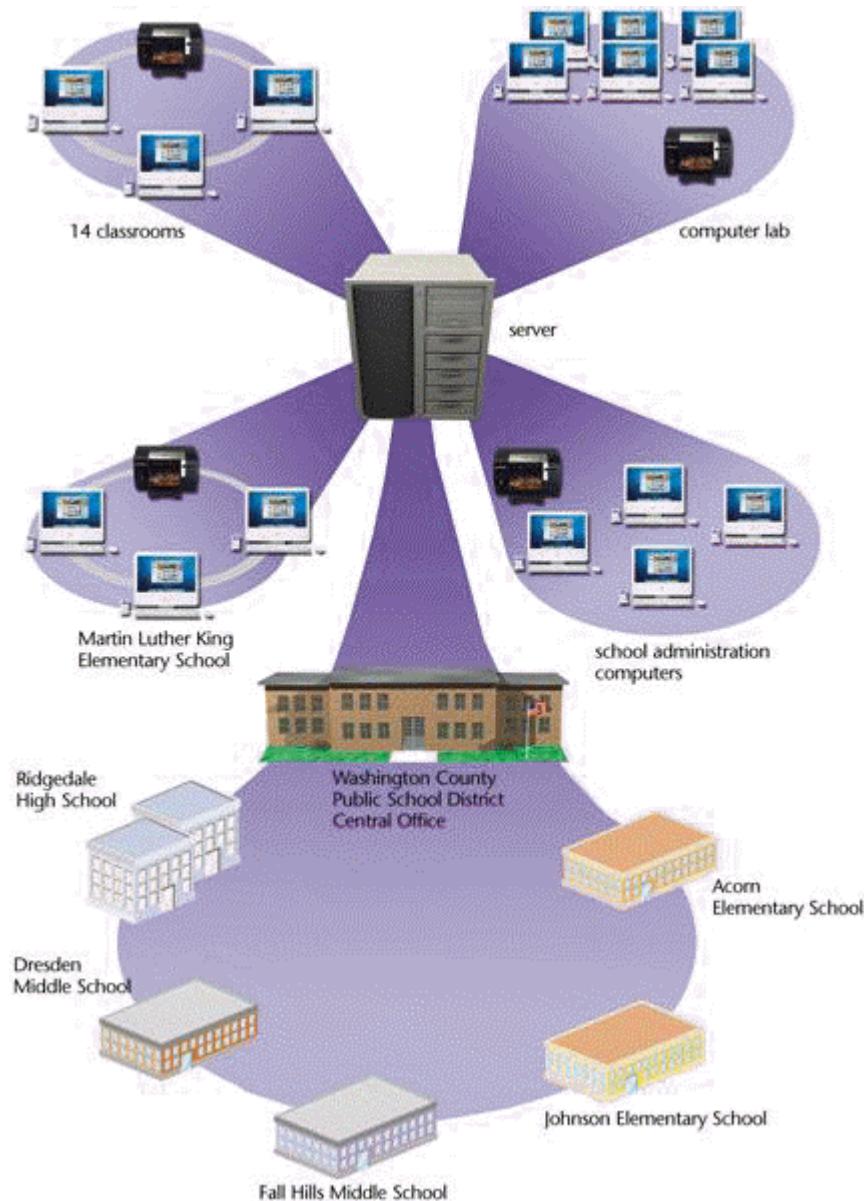
REF: 64

9. A(n) ____ covers a limited geographical region such as a school.
- a. local area network
 - b. wide area network
 - c. analog network
 - d. all of the above

ANS: A

PTS: 1

REF: 64



10. The world's largest example of the kind of network in the accompanying figure is called the ____.
- a. LAN
 - b. WAN
 - c. Internet
 - d. World Wide Web

ANS: C

PTS: 1

REF: 69

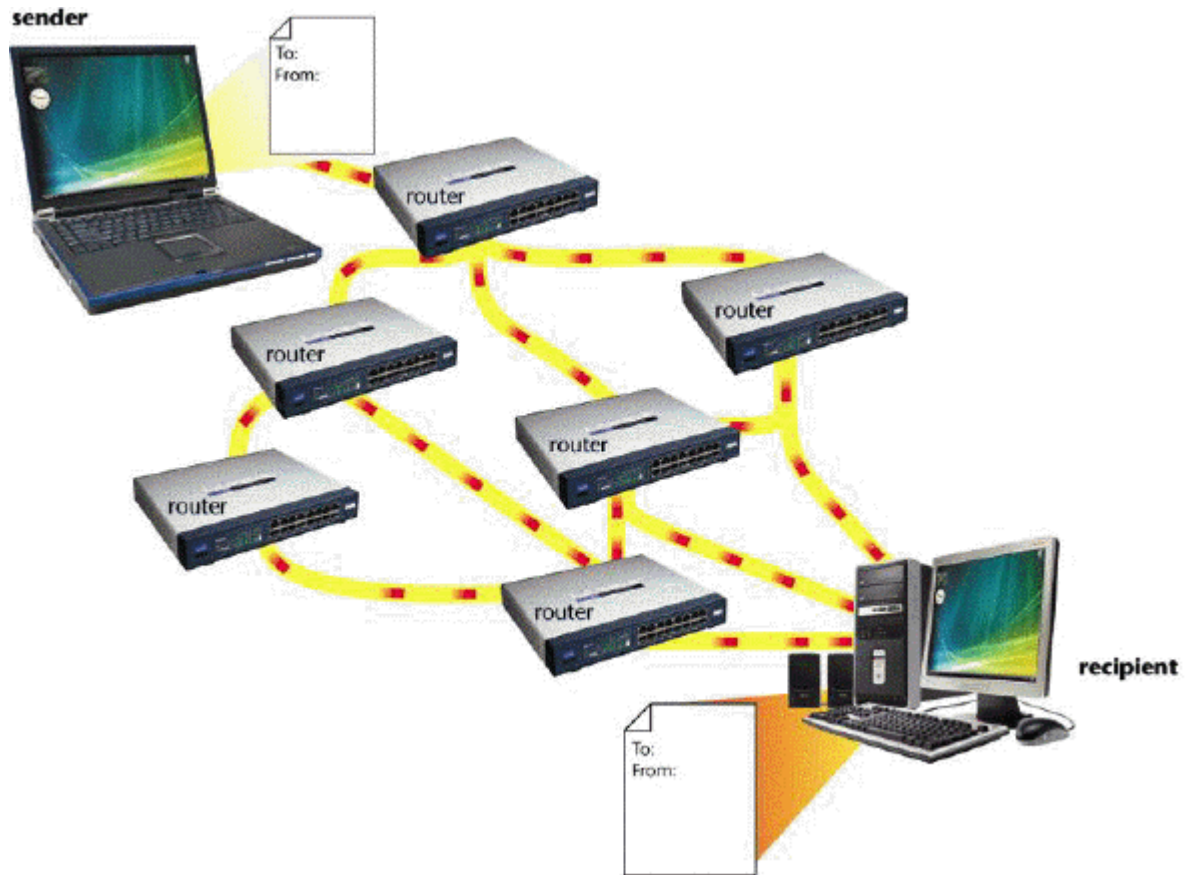
11. The Internet has its roots in a networking project started by the U.S. Department of Defense's ____.
- a. Armament Readiness Preparation Association
 - b. American Resource Protection Act
 - c. Advanced Research Projects Agency

d. Anticipated Resistance Provisional Alert System

ANS: C

PTS: 1

REF: 71



12. ____ is a technique shown in the accompanying figure in which messages are broken into individual pieces.

a. Packet changing
b. TCP/IP
c. Message switching
d. Packet switching

ANS: D

PTS: 1

REF: 74

13. A ____ is a business that provides Internet access to a specific geographic area.

a. local ISP
b. national ISP
c. regional ISP
d. international ISP

ANS: C

PTS: 1

REF: 74

14. Individual user accounts for Internet access vary from about ____ per month for high-speed access.

a. \$7 to \$25
b. \$10 to \$30
c. \$20 to \$55
d. \$50 to \$99

ANS: C

PTS: 1

REF: 74

15. Most Web pages contain ____, which are built-in connections to other related Web pages.

a. hyperlinks or links
b. hypertext or text
c. hyperbonds or bonds
d. hyperties or ties

ANS: A

PTS: 1

REF: 78

16. A collection of related Web pages that can be accessed electronically is called a ____.

- a. Web site
- b. home page
- c. Web server
- d. Web browser

ANS: A PTS: 1 REF: 78

17. A ____, which is similar to a book cover or table of contents, provides information about the purpose and content of a collection of Web pages.

- a. Web site
- b. home page
- c. Web server
- d. Web browser

ANS: B PTS: 1 REF: 78

18. A ____ is a computer that delivers requested Web pages.

- a. Web site
- b. home page
- c. Web server
- d. Web browser

ANS: C PTS: 1 REF: 79

19. Web pages can be accessed and viewed using a software program called a ____.

- a. Web site
- b. home page
- c. Web server
- d. Web browser

ANS: D PTS: 1 REF: 80

20. A(n) ____ records the pages viewed while you are online.

- a. bookmark list
- b. favorites list
- c. address list
- d. history list

ANS: D PTS: 1 REF: 81

21. A subject ____ is a type of search tool that allows users to navigate to areas of interest without having to enter keywords.

- a. index
- b. glossary
- c. directory
- d. roster

ANS: C PTS: 1 REF: 83

22. A search ____ is a specific type of search tool that finds Web sites, Web pages, and Internet files that match one or more keywords you enter.

- a. engine
- b. directory
- c. drive
- d. world

ANS: A PTS: 1 REF: 83

23. ____ is/are the appearance of motion created by displaying a series of still images in rapid sequence.

- a. Graphics
- b. Animation
- c. Audio
- d. Virtual reality

ANS: B PTS: 1 REF: 85

24. Simple ____ applications consist of individual sound files that must be downloaded completely before they can be played.

- a. Web graphics
- b. Web audio
- c. Web text
- d. Web video

ANS: B PTS: 1 REF: 86

25. ____ enables you to listen to the sound file as it downloads to your computer.

- a. Streaming audio
- b. Audio marquee
- c. Web sound
- d. Web player

ANS: A PTS: 1 REF: 86

26. Simple ____ applications consist of individual files, such as movie or television clips, that must be downloaded completely before they can be played on a computer.

- a. Web graphics
- b. Web audio
- c. Web text
- d. Web video

ANS: D PTS: 1 REF: 87

27. ____ is/are the simulation of a real or imagined environment that appears as a three-dimensional (3-D) space.

- a. Graphics
- b. Animation
- c. Audio
- d. Virtual reality

ANS: D PTS: 1 REF: 87

28. ____ was/were one of the original features of the Internet, enabling scientists and researchers working on government-sponsored projects to communicate with colleagues at other locations.

- a. E-mail
- b. Netiquette
- c. Cookies
- d. Search engines

ANS: A PTS: 1 REF: 88

29. Using a(n) ____ program, messages can be created, sent, received, forwarded, stored, printed, and deleted.

- a. Telnet
- b. e-mail
- c. FTP
- d. newsreader

ANS: B PTS: 1 REF: 88

30. A(n) ____ is a computer that allows users to upload and download files using FTP.

- a. FTP site
- b. FTP page
- c. FTP server
- d. FTP program

ANS: C PTS: 1 REF: 90

31. A(n) ____ is a collection of files including text, graphics, audio, video, and program files.

- a. FTP site
- b. FTP page
- c. FTP server
- d. FTP program

ANS: A PTS: 1 REF: 90

32. A newsreader enables a user to access a newsgroup to read a previously entered message, called a(n) ____.

- a. article
- b. treatise
- c. submission
- d. story

ANS: A PTS: 1 REF: 91

33. Adding an article to a newsgroup is done through a process called ____.

- a. streaming
- c. switching

1. A basic communications system consists of ____.
 - a. two computers, one to send and one to receive data
 - b. communications devices that send and receive data
 - c. a communications channel over which data is sent
 - d. programs that manage the transmission of data between computers

ANS: A, B, C, D PTS: 1 REF: 62

2. The Internet is used to ____.
 - a. access information, news, research and educational material
 - b. send or receive messages from other connected users
 - c. meet and converse with people around the world
 - d. explore virtual worlds

ANS: A, B, C, D PTS: 1 REF: 69-70

3. Virtual reality is used for which of the following practical applications?
 - a. transmitting messages, graphics, and other attachments via a computer network
 - b. creating models of molecules, organisms, and other structures for students to examine
 - c. taking virtual tours of historic sites located all over the world
 - d. allowing users to conduct written discussions about a particular subject

ANS: B, C PTS: 1 REF: 87-88

4. A(n) ____ is a real-time communication.
 - a. instant message
 - b. portal
 - c. thread
 - d. chat

ANS: A, D PTS: 1 REF: 92-93

5. ____ is the code of acceptable behaviors users should follow while on the Internet.
 - a. Emily Post
 - b. Internet etiquette
 - c. Netiquette
 - d. Internet Protocol

ANS: B, C PTS: 1 REF: 94

TRUE/FALSE

1. Communications refers to the transmission of data, instructions, and information between two or more computers or devices.

ANS: T PTS: 1 REF: 61

2. Networks and media that use broadband technologies transmit signals at much slower speeds than traditional network configurations.

ANS: F PTS: 1 REF: 68

3. Internet2 (I2) is an extremely high-speed network that develops and tests advanced Internet technologies for research, teaching, and learning.

ANS: T PTS: 1 REF: 73

10. The terms World Wide Web and Internet are interchangeable.

ANS: F PTS: 1 REF: 78

11. While the World Wide Web was developed in the late 1960s, the Internet came into existence less than a decade ago — in the early 1990s.

ANS: F PTS: 1 REF: 78

12. Branching off and investigating related topics as you encounter them is a nonlinear way of learning, also known as Web surfing.

ANS: F PTS: 1 REF: 79

13. Web 2.0 or Semantic Web is when the semantics of information and services on the Web is defined, thus allowing the Web to understand and satisfy the requests of people to use the Web content instantly.

ANS: F PTS: 1 REF: 79

14. To develop a Web page, it is necessary to be a computer programmer — and to learn advanced HTML.

ANS: F PTS: 1 REF: 80

15. Web pages that use multimedia elements often include links to Web sites that contain the required plug-in or helper.

ANS: T PTS: 1 REF: 84

16. Streaming video does not have much potential for school use.

ANS: F PTS: 1 REF: 87

17. A VR world is an entire 3-D site containing infinite space and depth.

ANS: T PTS: 1 REF: 87

18. E-mail has become a primary communications method for both personal and business use.

ANS: T PTS: 1 REF: 88

19. Many FTP sites allow anonymous FTP, whereby anyone can transfer some, if not all, available files.

ANS: T PTS: 1 REF: 90

20. Most universities, corporations, ISPs, online services, and other large organizations have a news server.

ANS: T PTS: 1 REF: 91

21. There is no difference between a newsgroup and a mailing list.

ANS: F PTS: 1 REF: 91

22. Voice over IP allows users to speak to other users over the Internet using their desktop computer, mobile computer, or mobile device.

ANS: T PTS: 1 REF: 93

23. Once a chat client has been installed, conversations can be created or joined on a chat server.

ANS: T PTS: 1 REF: 93

24. An Acceptable Use Policy (AUP) is an outline of user standards that reminds teachers, students, and parents that they are guests on the Internet.

ANS: T PTS: 1 REF: 94

25. In the theory known as signal convergence, every mass medium eventually merges into one medium due to the advent of new communications technologies.

ANS: F PTS: 1 REF: 96

MODIFIED TRUE/FALSE

1. Twisted-pair cable consists of pairs of plastic-coated fiber-optic wires twisted together.

ANS: F, copper

PTS: 1 REF: 62

2. Telephone equipment originally was designed to carry only voice transmission, which is comprised of a continuous electrical wave called a(n) digital signal. _____

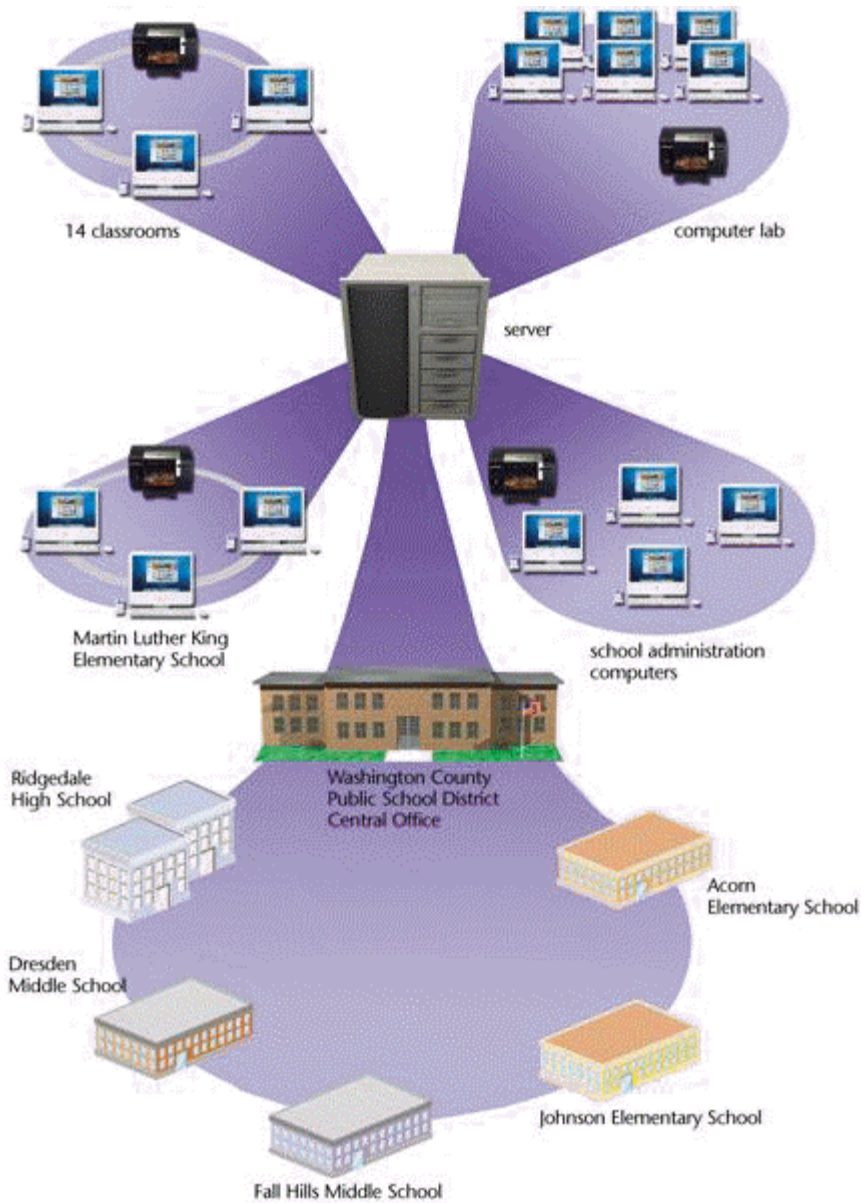
ANS: F, analog

PTS: 1 REF: 62

3. A local area network (LAN) covers a large geographical region, such as a school, office building, or group of buildings. _____

ANS: F, limited

PTS: 1 REF: 64



4. The original ARPANET was a local area network consisting of four main computers, like the kind of network shown in the accompanying figure. _____

ANS: F, wide

PTS: 1

REF: 72

5. When using Internet telephony, the spoken words are converted to analog signals. _____

ANS: F, digital

PTS: 1

REF: 93

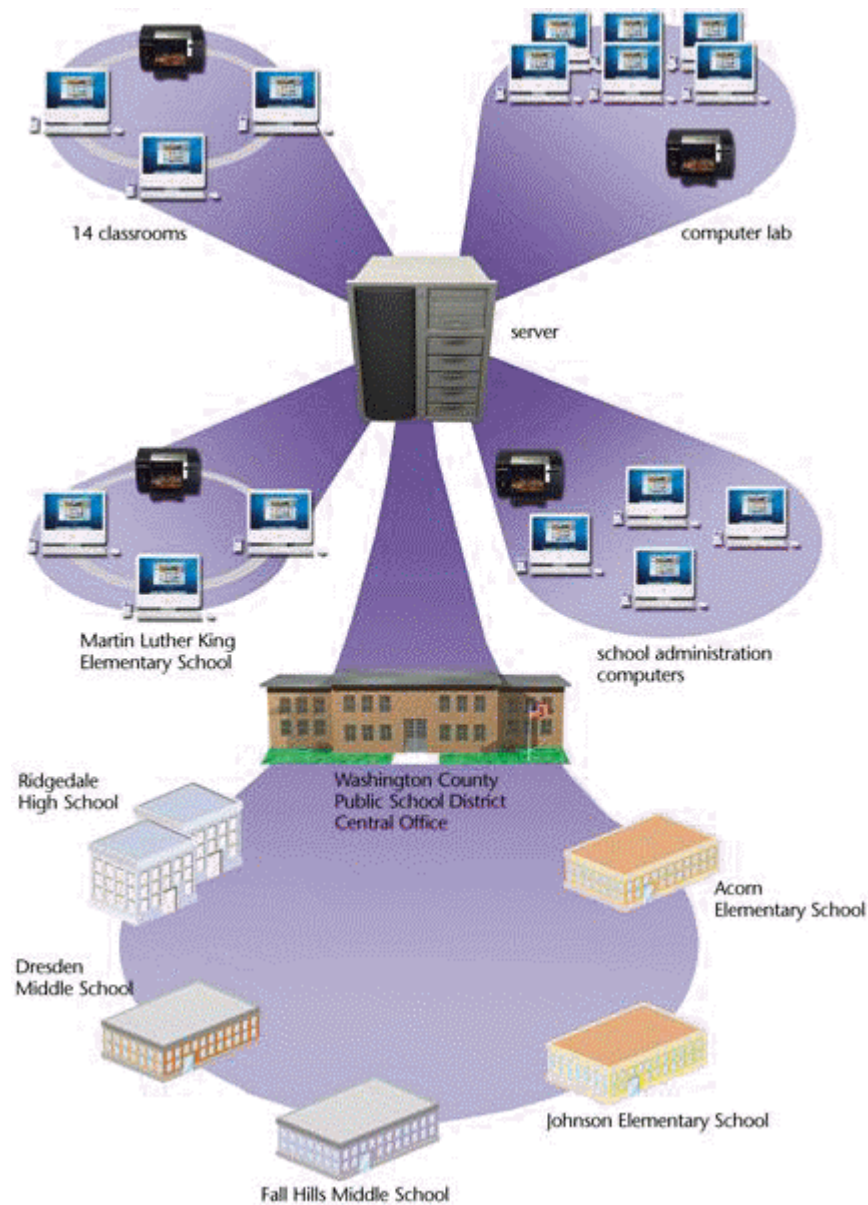
COMPLETION

1. A(n) communications _____ is a collection of computers and other equipment organized to share data, information, hardware, and software.

ANS: network

PTS: 1

REF: 62



2. A(n) _____ covers a large geographical region, such as a city or school district, as shown in the accompanying figure.

ANS:

wide area network

WAN

wide area network (WAN)

WAN (wide area network)

PTS: 1

REF: 64

3. A(n) _____ manages the resources on a network and provides a centralized storage area for software programs and data.

ANS: server

PTS: 1 REF: 64

4. In a network, a(n) _____ is the main computer in a network of computers connected by communications links.

ANS: host

PTS: 1 REF: 72

5. A(n) _____ is a high-speed network that connects regional and local networks to the Internet.

ANS: backbone

PTS: 1 REF: 72



6. The protocol used to define the process illustrated in the accompanying figure on the Internet is a communications protocol known as _____.

ANS:

TCP/IP
Transmission Control Protocol/Internet Protocol
TCP/IP (Transmission Control Protocol/Internet Protocol)
Transmission Control Protocol/Internet Protocol (TCP/IP)

PTS: 1 REF: 74

7. A(n) _____ is regional or national access provider.

ANS:
Internet service provider (ISP)
Internet service provider
ISP (Internet service provider)
ISP

PTS: 1 REF: 74

8. Each Web page on a Web site has a unique address, called a(n) _____.

ANS:
Uniform Resource Locator (URL)
Uniform Resource Locator
URL (Uniform Resource Locator)
URL

PTS: 1 REF: 78

9. A(n) _____ hyperlink links to another document on a different Internet server that could be across the country or across the world.

ANS: absolute

PTS: 1 REF: 79

10. HTML codes, called _____, define the placement and format of text, graphics, video, and sound on a Web page.

ANS: tags

PTS: 1 REF: 80

11. A(n) _____ is a program that interprets HTML and displays Web pages and enables users to link to other Web pages and Web sites.

ANS:
Web browser
browser

PTS: 1 REF: 80

12. Bookmark lists, also called _____, are stored on your computer and may be used in future Web sessions.

ANS: favorites

PTS: 1 REF: 81

13. Text that is animated to scroll across the Web page screen, called a(n) _____, can serve as a ticker to display stock updates, news, sports scores, or weather.

ANS: marquee

PTS: 1 REF: 85

14. _____ enables a user to listen to the sound file from a Web page as it downloads to a computer.

ANS: Streaming audio

PTS: 1 REF: 86

15. _____ is the simulation of a real or imagined environment that appears as a three-dimensional (3-D) space.

ANS:

Virtual reality (VR)

Virtual reality

VR (Virtual reality)

VR

PTS: 1 REF: 87

16. An original newsgroup article and all subsequent related replies are called a(n) _____.

ANS:

thread

threaded discussion

PTS: 1 REF: 91

17. _____ means that chat users and the people with whom they are conversing are online at the same time.

ANS: Real-time

PTS: 1 REF: 92

18. _____ enables users to speak to other users over the Internet using their desktop computer, mobile computer, or mobile device.

ANS:

Internet Telephony

VoIP

Voice over IP

Voice over IP (VoIP)

VoIP (Voice over IP)

PTS: 1

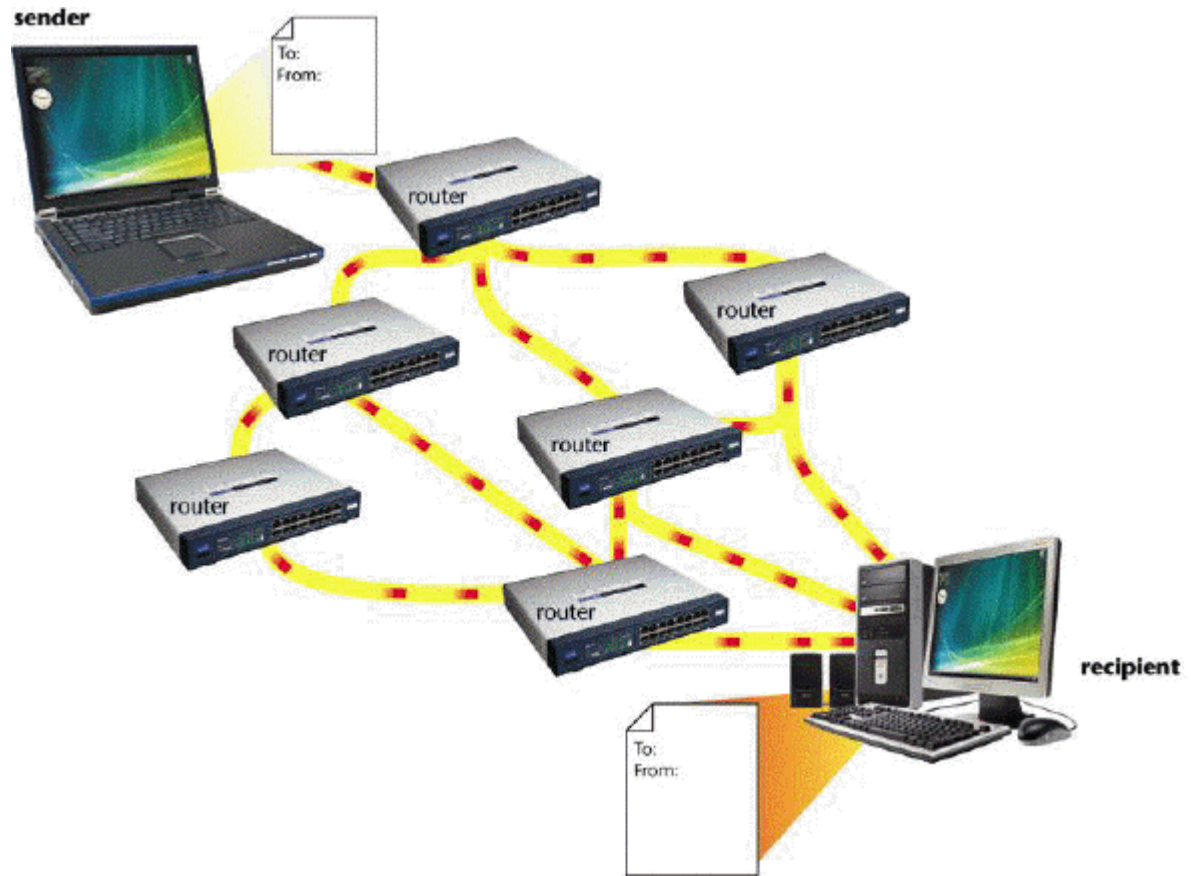
REF: 93

19. A(n) _____ is a general term that refers to both hardware and software used to restrict access to data on a network.

ANS: firewall

PTS: 1

REF: 94



20. The technique illustrated in the accompanying figure in which messages are broken into pieces, sent along the best route available, and then reassembled into the data is called _____.

ANS: packet switching

PTS: 1

REF: 74

MATCHING

Match the plug-in or Web site category with its description below.

a. 

f. portal

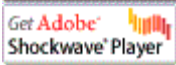
b. 

g. blog

c. 

h. advocacy



- d.  i. content aggregator
- e.  j. wiki

1. View animation, music, audio, video, and VR panoramas and objects directly on a Web page.
2. Listen to live and on-demand near-CD-quality audio and newscast-quality video.
3. Experience dynamic interactive multimedia, 3-D graphics, and streaming audio.
4. View, navigate, and print Portable Document Format (PDF) files.
5. View dazzling graphics and animation, hear outstanding sound and music, display Web pages across an entire screen.
6. A Web site that offers a variety of Internet services from a single, convenient location.
7. A Web site that contains content that describes a cause, opinion, or idea.
8. A business that gathers and organizes Web content and then distributes, or feeds, the content to subscribers for free or a fee.
9. A collaborative Web site that allows users to create, add to, modify, or delete the Web site content via their Web browser.
10. An informal Web site consisting of time-stamped articles, or posts, in a diary or journal format, usually listed in reverse chronological order.

1. ANS: C	PTS: 1	REF: 84
2. ANS: B	PTS: 1	REF: 84
3. ANS: E	PTS: 1	REF: 84
4. ANS: D	PTS: 1	REF: 84
5. ANS: A	PTS: 1	REF: 84
6. ANS: F	PTS: 1	REF: 82
7. ANS: H	PTS: 1	REF: 82
8. ANS: I	PTS: 1	REF: 82
9. ANS: J	PTS: 1	REF: 82
10. ANS: G	PTS: 1	REF: 82

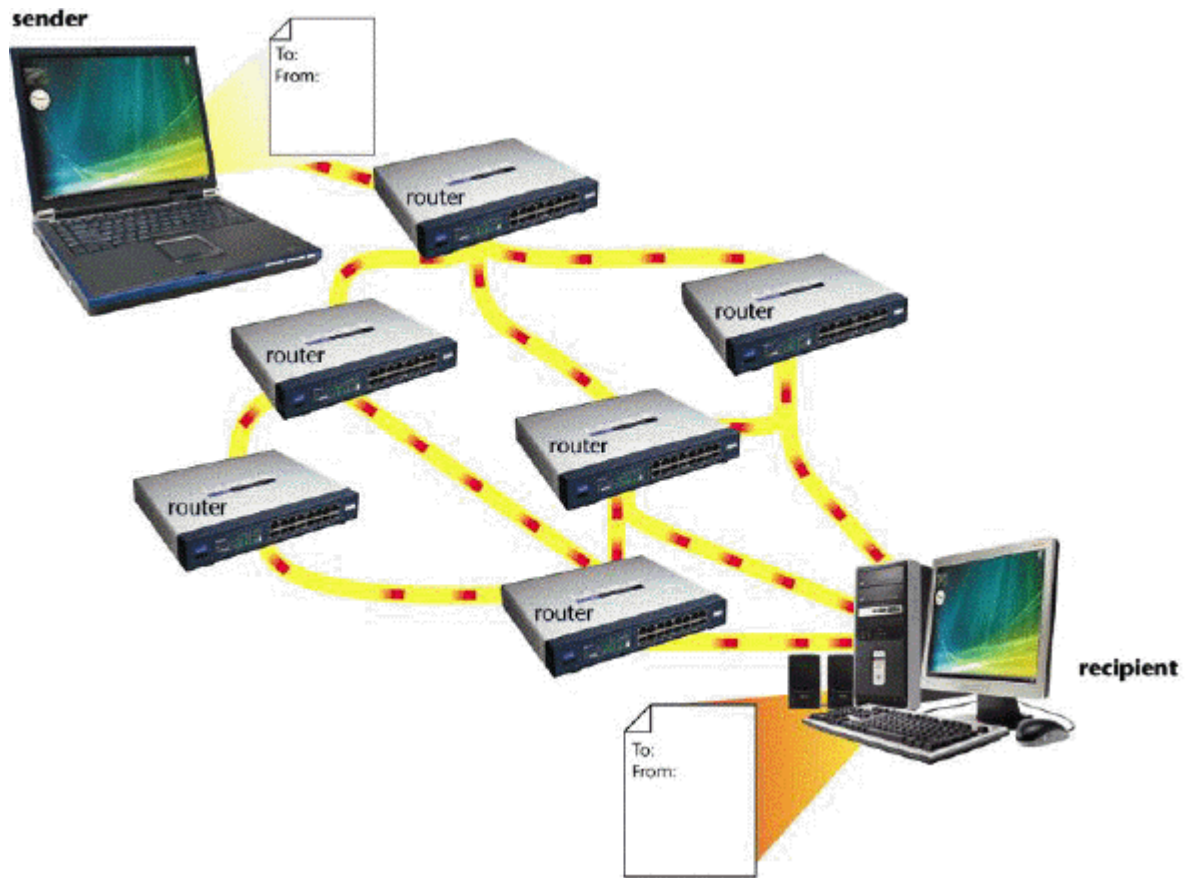
ESSAY

1. Today, more than one billion users around the world connect to the Internet for a variety of reasons. List and describe some of the possible uses of the Internet.

ANS:

- Explore virtual worlds and social networks.
- Access a wealth of information, news, research, and educational material.
- Conduct business or complete banking and investing transactions.
- Access sources of entertainment and leisure, such as online games, magazines, and vacation-planning guides.
- Shop for goods and services.
- Meet and converse with people around the world through discussion groups, instant messaging, blogs, wikis, or chat rooms.
- Access other computers and exchange or share files.
- Send messages to or receive messages from other connected users.
- Download and listen to music or download and watch movies.
- Take a course or access educational materials.

PTS: 1 REF: 69-70 TOP: Critical Thinking



2. Summarize the steps in the process illustrated by the accompanying figure to describe how data travels over the Internet.

ANS:

Step 1: Data is divided into small pieces, called packets.

Step 2: Packets travel over the Internet via routers.

Step 3: At the destination, the packets are reassembled into the original message.

If the most direct path to the destination is overloaded or not operating, routers send the packets along alternate paths. Although each packet may arrive out of sequence, the destination computer uses the sequence information contained in each packet to reassemble the original message, file, document, or request.

PTS: 1

REF: 73-74

TOP: Critical Thinking

3. Using the following URL, describe each of the four listed components

http://www.us-parks.com/grand_canyon/scenic_vistas.html

ANS:

http:// is the protocol. http stands for Hypertext Transfer Protocol, which is the communications protocol used to transfer pages on the Web.

www.us-parks.com/ is the domain name. A domain name is the text version of a computer address. So, us-parks.com is the starting point for the information

grand_canyon/ is the path, which is the location of the document or page that is displayed.

scenic_vistas.html is the Web page name, or the name of the specific page being displayed.

CASE**Critical Thinking Questions****Case 1**

You are working on lesson plans for your class and are trying to determine the best category of Web site to have your students use.

1. Which of the following Web site categories would you recommend for your students who are doing research papers on one of the 50 states?
 - a. portal
 - b. informational
 - c. education
 - d. advocacy

ANS:

C

PTS: 1

REF: 82

TOP: Critical Thinking

2. Which of the following Web site categories would you recommend for your students who want to share stories they have written with their friends?
 - a. business
 - b. online social network
 - c. entertainment
 - d. wiki

ANS:

B

PTS: 1

REF: 82

TOP: Critical Thinking

Critical Thinking Questions**Case 2**

In your role as media specialist for the school, you are trying to determine what form of multimedia would best meet the needs of your students in various circumstances.

3. Which of the following multimedia formats would be the best to use for students who missed a class but have access to an iPod?
 - a. animation
 - b. graphics
 - c. virtual reality
 - d. audio

ANS:

D

PTS: 1

REF: 86

TOP: Critical Thinking

4. Which of the following multimedia formats would be the best to use for students who missed a lab on frog dissection?
 - a. virtual reality
 - b. audio
 - c. animation
 - d. graphics

ANS:

A

PTS: 1

REF: 88

TOP: Critical Thinking