Explain the choice that best completes the statement or answers the question.

___ 1. Ultra-mobile PCs are also called ____.
   a. mini computers  c. range computers
   b. handheld computers  d. frame computers

___ 2. A ____ is a collection of hardware and other devices that are connected together so that users can share
   hardware, software, and data, as well as electronically communicate with each other.
   a. computer bank  c. data bank
   b. database  d. computer network

___ 3. Similar to the way an IP address or domain name uniquely identifies a computer on the Internet, a ____
   uniquely identifies a Web page.
   a. universal resource identifier (URI)  c. uniform resource locator (URL)
   b. Web ID (WID)  d. Web resource identifier (WRI)

___ 4. Each place value in a binary number represents ____ raised to the appropriate power.
   a. 0  c. 2
   b. 1  d. 10

___ 5. A ____ is an electronic path over which data can travel.
   a. bus  c. word
   b. lane  d. cache memory

___ 6. A USB ____ is a device that plugs into your PC’s USB port to convert one port into several USB ports.
   a. hub  c. bus
   b. module  d. connector
7. The elements shown in the accompanying figure are ____, which are used to organize related documents.
   a. files b. drives c. folders d. clipboards

**Case-Based Critical Thinking Questions**

**Case 3-1**
Dan is a small business owner who depends on his computer to keep track of customer and sales data. He is investigating storage options because it is critical for him to ensure that his data is safe in the event of a computer failure.

8. A friend of Dan suggested to him that he can use an external hard drive for his data storage and backup needs. To use an external hard drive, Dan should make sure that his computer has an available USB or ____ port.
   a. ScanDisk b. Zip c. flash d. FireWire

9. ____ includes all the programs that allow a user to perform specific tasks on a computer, such as writing a letter.
   a. System software b. Utility programs c. Application software d. Background programs

10. A computer’s ____ is a collection of programs that manage and coordinate the activities taking place within a computer system.
    a. database system b. storage system c. application system d. operating system

11. ____ refers to the ability of an operating system to work with more than one program at one time.
12. In addition to personal operating systems and server operating systems, there are also mobile operating systems and ____.
   a. embedded operating systems
   b. high-performance operating systems
   c. virtual operating systems
   d. storage operating systems

13. Creating a(n) ____ means making a duplicate copy of important files so that when a problem occurs, you can restore those files using the backup copy.
   a. mirror
   b. backup
   c. index
   d. hidden file

14. ____ can be used, copied, modified, and distributed to others without restrictions.
   a. Shareware
   b. Commercial software
   c. Freeware
   d. Public domain software

15. The accompanying figure represents the toolbar command button for the ____ command.
   a. New document
   b. Open
   c. Save
   d. Undo

16. One of the most common painting programs is ____.
   a. Macromedia’s Dreamweaver
   b. Adobe’s Acrobat
   c. Microsoft Paint
   d. IBM’s Storyboard

17. ____ refers to organizing the content to be transferred to DVD, such as importing video clips, creating the desired menu structure, and so forth.
   a. DVD authoring
   b. Video editing
   c. Video ripping
   d. DVD ripping

18. Monitoring systems may also use ____ which are devices that respond to a stimulus (such as heat, light, or pressure) and generate an electrical signal that can be measured or interpreted.
   a. transmitters
   b. interpreters
   c. IAs
   d. sensors

19. ____ is the use of networking technology to provide medical information and services.
   a. Telecommuting
   b. Remote medicine
   c. Telemedicine
   d. Remote health

20. In ____ transmission, data can travel in either direction, but only in one direction at a time.
   a. duplex
   b. simplex
   c. half-simplex
   d. half-duplex

21. A standard that is designed to connect peripheral devices, similar to Bluetooth, but that transfers data more quickly is ____.
   a. WiMAX
   b. xMax
   c. Mobile-Fi
   d. wireless USB
22. A network adapter, also called a ____ when it is in the form of an expansion card, is used to connect a computer to a network.
   a. network interface card (NIC)  
   b. powerline card  
   c. data communications card (DCC)  
   d. USB

23. Most search sites use a ____—a software program—in conjunction with a huge database of information about Web pages to help visitors find Web pages that contain the information they are seeking.
   a. search engine  
   b. search toolbox  
   c. search store  
   d. search box

24. ____ cookies are cookies placed on your hard drive by a company other than the one associated with the Web page that you are viewing—typically a Web advertising company.
   a. Outsider  
   b. Associate  
   c. Tagged  
   d. Third-party

Case-Based Critical Thinking Questions

Case 8-2
Brenda is a college student who enjoys downloading music, movies, and television shows from the Internet. She also uses the Internet for other entertainment, such as sports.

25. Brenda also orders movies and television through the Internet via a(n) ____ provider, which allows users to download video for a small fee.
   a. RSS  
   b. VOD  
   c. VoIP  
   d. blog
Part 2 – Completion (25 points total)

Complete each statement.

1. __________________ are regular appliances with some type of built-in computer technology.

2. One of the most common methods for storing graphics data is in the form of a bitmap—a grid of hundreds of thousands of dots, called ________________.

3. ________________ are locations on the motherboard into which expansion cards can be inserted to connect those cards to the motherboard.

4. To avoid confusion with the tracks or songs on an audio CD, the track on an optical disc is sometimes referred to as a(n) ________________.

5. Large enterprise storage systems are usually ______________ so that additional hard drives can be added as needed.

6. ________________ is based on the UNIX operating system and originally set the standard for graphical user interfaces.

7. ________________ is an operating system developed by Linus Torvalds in 1991 when he was a student at the University of Helsinki in Finland.

8. ________________ are utility programs that search for documents and other files on a user’s hard drives.

9. When using a spreadsheet, a(n) ________________ performs mathematical operations using the content of other cells (such as adding or multiplying the values in the specified cells) and displays the result in the target cell.

10. Mobile phones are phones that use a ________________ network for communications instead of being connected to the regular telephone network via a conventional telephone jack.

11. Workgroup computing is also referred to as ________ computing.

12. ________________ cable is the newest and fastest wired transmission medium.
13. The accompanying figure shows a(n) ____________________ site.

14. “____________________-based training” refers to any instruction delivered via the Web.

15. __________________ is free or low-cost software that is supported by on-screen advertising.
Part 3 – Short Answer (50 points total)

- Answer each question completely including all parts
- Give examples if required
- The questions cannot be answered in a single sentence

1. Explain what a register is and how it is used.
2. Explain the difference between multiprocessing and parallel processing.
3. Describe how Hyper-Threading Technology works.
4. What is a smart card? Describe some common features and uses of smart cards.
5. What kind of applications are holographic data storage systems suited for?
6. How do digital cameras work?
7. Explain multithreading.
8. Define and discuss the advantages of telecommuting.
9. Discuss the popular myth that someone controls the Internet.
10. What are the main characteristics of satellite Internet access?