Chapter 2: Introducing Operating Systems

TRUE/FALSE

1. An operating system manages hardware, runs applications, provides an interface for users, and stores, retrieves, and manipulates files.

   ANS: T   PTS: 1   REF: 36

2. Current versions of Windows use DOS as the operating system.

   ANS: F   PTS: 1   REF: 37

3. The kernel provides a way for the user to do such things as select music to burn to a CD, install an application, or change the wallpaper on the Windows desktop.

   ANS: F   PTS: 1   REF: 44

4. The Windows desktop is itself a folder.

   ANS: T   PTS: 1   REF: 69

5. System Information can be useful when strange error messages appear during startup.

   ANS: T   PTS: 1   REF: 72

MULTIPLE CHOICE

1. A(n) ____ is software that controls a computer.
   a. application
   b. operating system
   c. interface routine
   d. ROM routine

   ANS: B   PTS: 1   REF: 36

2. In 1986, ____ was introduced and quickly became the most popular OS among IBM computers and IBM-compatible computers using the Intel 8086 processors.
   a. MS-DOS
   b. Windows
   c. OS/2
   d. CP/M

   ANS: A   PTS: 1   REF: 36

3. A ____ interface is an interface that uses graphics as compared to a command-driven interface.
   a. text
   b. menu-based
   c. common user
   d. graphical user

   ANS: D   PTS: 1   REF: 37

4. Vista has a new 3D user interface called the ____ user interface.
   a. Glass
   b. Aero
   c. Air
   d. Shield

   ANS: B   PTS: 1   REF: 40

5. A(n) ____ is a low-end inexpensive laptop with a small 9- or 10-inch screen and no optical drive.
    a. nettop   c. Internet station
    b. netbook   d. ultralite

    ANS: B   PTS: 1   REF: 41

6. A ____ makes it possible to boot a computer into one of two installed OSs.
    a. hypervisor   c. dual boot
    b. virtualization layer   d. quick boot

    ANS: C   PTS: 1   REF: 42

7. A(n) ____ is the portion of an OS that relates to the user and to applications.
    a. hypervisor   c. GUI
    b. interpreter   d. shell

    ANS: D   PTS: 1   REF: 43

8. The OS ____ is responsible for interacting with hardware.
    a. kernel   c. driver layer
    b. abstraction layer   d. ring

    ANS: A   PTS: 1   REF: 44

9. The ____ interface between the subsystems in user mode and the HAL.
    a. application   c. primitive
    b. executive services   d. non-privileged services

    ANS: B   PTS: 1   REF: 45

10. A ____ is a single task, such as the task of printing a file, that the process requests from the kernel.
    a. fiber   c. process
    b. bundle   d. thread

    ANS: D   PTS: 1   REF: 46

11. ____ are small programs stored on the hard drive that tell the computer how to communicate with a specific hardware device such as a printer, network card, or modem.
    a. Abstraction layer   c. BIOS
    b. Device drivers   d. Input routines

    ANS: B   PTS: 1   REF: 47

12. The ____ is normally located at the bottom of the Windows desktop, displaying information about open programs and providing quick access to others.
    a. taskbar   c. menu bar
    b. Windows button   d. task ribbon

    ANS: A   PTS: 1   REF: 55

13. The ____ is usually on the right side of the taskbar and displays open services.
    a. status tray   c. system tray
    b. display area   d. identification area

    ANS: C   PTS: 1   REF: 55

14. A(n) ____ is a program that runs in the background to support or serve Windows or an application.

    a. interface   c. daemon
    b. slave   d. service

ANS: D PTS: 1 REF: 55-56

15. A ____ is one or more characters following the last period in a filename, such as .exe, .txt, or .avi.
    a. filename   c. file version
    b. file extension   d. file type

ANS: B PTS: 1 REF: 57

16. The ____ dialog box in Windows Vista appears each time a user attempts to perform an action that can be done only with administrative privileges.
    a. User Account Confirmation   c. User Access Control
    b. User Account Control   d. User Access Confirmation

ANS: B PTS: 1 REF: 61

17. Windows identifies file types primarily by the ____.
    a. file contents   c. file extension
    b. resource fork   d. companion stream

ANS: C PTS: 1 REF: 66

18. Windows offers two ways to sync files: ____.
    a. Briefcase and Offline Files   c. Synchronization Tasks and Online Files
    b. Network Neighborhood and Offline Files d. Briefcase and Synchronization layer

ANS: A PTS: 1 REF: 68

19. From the ____ window, you can change the read-only, hidden, archive, and indexing attributes of the file.
    a. Open   c. Status
    b. Attributes   d. Properties

ANS: D PTS: 1 REF: 69

20. A(n) ____ is a list of items that is used to speed up a search.
    a. database   c. shortcut
    b. index   d. block

ANS: B PTS: 1 REF: 69

21. An applet has a ____ file extension.
    a. .ctl   c. .cpl
    b. .crl   d. .app

ANS: C PTS: 1 REF: 70

COMPLETION

1. Microsoft did not make a commitment for Windows 2000 to be _____-compatible with older software and hardware.

ANS: backward

PTS: 1   REF: 39

2. _____ are generally used for Web browsing, e-mail, and word processing by users on the go.

ANS: Netbooks

PTS: 1   REF: 41

3. A(n) _____ folder is often used to compress files to a smaller size so they can more easily be sent by e-mail.

ANS:
compressed
zipped
.zip
zip

PTS: 1   REF: 68

4. The _____ is a window containing several small utility programs called applets that are used to manage hardware, software, users, and the system.

ANS: Control Panel

PTS: 1   REF: 70

5. The _____ gives a wealth of information about installed hardware and software, the current system configuration, and currently running programs.

ANS: System Information utility

PTS: 1   REF: 72

MATCHING

Match each term with the correct statement below.

a. Briefcase   f. Parent folder
b. Virtual machine   g. Legacy
c. Desktop   h. File attributes
d. Service pack   i. Patches
e. Compressed folder

1. The initial screen that is displayed when an OS has a GUI interface loaded
2. A major update or fix to an OS occasionally released by Microsoft
3. Minor updates or fixes that are released frequently
4. Older hardware and software
5. An environment created by software that works as though it is a standalone computer system
6. Contains the child folder
7. Creates a folder with a .zip extension
8. Creates a folder that can be used to sync up files in this folder with its corresponding folder on another computer
9. Properties assigned to a file

1. ANS: C   PTS: 1   REF: 37
2. ANS: D   PTS: 1   REF: 39
3. ANS: I   PTS: 1   REF: 39
4. ANS: G   PTS: 1   REF: 40
5. ANS: B   PTS: 1   REF: 42
6. ANS: F   PTS: 1   REF: 68
7. ANS: E   PTS: 1   REF: 68
8. ANS: A   PTS: 1   REF: 68
9. ANS: H   PTS: 1   REF: 69

SHORT ANSWER

1. Discuss the difference between Windows 2000 and Windows NT.

   ANS:
   Windows 2000 was an upgrade of Windows NT, and also came in several versions, some designed for the desktop and others designed for high-end servers. Windows 2000 Professional was popular as an OS for the corporate desktop. Windows 2000 Server, Advanced Server, and Datacenter Server are network server OSs. Windows 2000 offered several improvements over Windows NT, including a more stable environment, support for Plug and Play, Device Manager, Recovery Console, Active Directory, better network support, and features specifically targeting notebook computers.

   PTS: 1   REF: 38

2. Discuss Windows XP as an upgrade for Windows 2000.

   ANS:
   Windows XP is an upgrade of Windows 2000 and attempts to integrate Windows 9x/Me and 2000, while providing added support for multimedia and networking technologies. The two main versions are Windows XP Home Edition and Windows XP Professional, though other less significant editions include Windows XP Media Center Edition, Windows XP Tablet PC Edition, and Windows XP Professional x64 Edition.

   The Windows XP desktop has a different look from the desktops for earlier Windows. Windows XP is the first Windows OS to allow multiple users to log on simultaneously to the OS, each with their own applications open. Windows Messenger and Windows Media Player are inherent parts of Windows XP. And XP includes several new security features, including Windows Firewall.

   PTS: 1   REF: 39

3. Discuss Windows 7.

   ANS:
   With many frustrations over Windows Vista still not resolved, some consumers have dubbed Windows 7 "the ultimate Vista fix." Windows 7 is the next generation of Microsoft operating systems, and was due to be released not long after the printing of this book. Now that technicians have taken a first look at Windows 7 and have compared it to Vista, it appears that Windows 7 will perform better, be more compatible with legacy hardware and software, and provide a leaner and simpler user interface.

PTS: 1   REF: 41

4. Describe Linux.

ANS:
Linux is a variation of Unix that was created by Linus Torvalds when he was a student at the
University of Helsinki in Finland. Versions of this OS are available for free, and all the underlying
programming instructions (called source code) are also freely distributed. Like Unix, Linux is
distributed by several different companies, whose versions of Linux are sometimes called
distributions. Popular distributions of Linux include SuSE (www.novell.com/linux/suse), RedHat
(www.redhat.com), TurboLinux (www.turbolinux.com), Slackware Linux (www.slackware.com), and
Ubuntu (www.ubuntu.com).

PTS: 1   REF: 42

5. List and describe the four functions of an operating system.

ANS:

Function 1. Provide a user interface

Performing housekeeping procedures requested by the user, often concerning secondary storage
devices, such as reorganizing a hard drive, deleting files, copying files, and changing the system date
Providing a way for the user to manage the desktop, hardware, applications, and data

Function 2. Manage files

Managing files on hard drives, DVD drives, CD drives, floppy drives, and other drives
Creating, storing, retrieving, deleting, and moving files

Function 3. Manage hardware

Managing the BIOS (programs permanently stored on hardware devices)
Managing memory, which is a temporary place to store data and instructions as they are being
processed
Diagnosing problems with software and hardware
Interfacing between hardware and software (that is, interpreting application software needs to the
hardware and interpreting hardware needs to application software)

Function 4. Manage applications

Installing and uninstalling applications
Running applications and managing the interface to the hardware on behalf of an application

PTS: 1   REF: 44

6. Describe a shortcut icon.

ANS:

A quick way to open an application you use often is to place a shortcut icon to the program on the desktop. A shortcut icon is a clickable item on the desktop that points to a program you can execute, or to a file or folder. One way to create a shortcut for a program is to right-click the program file in the Computer or Windows Explorer window and select Create Shortcut from the menu that appears.

PTS: 1   REF: 54

7. Describe the purpose of the UAC box in Windows Vista.

ANS:
The purposes of the UAC box are: (1) to prevent malicious background tasks from doing harm when the administrator is logged on, and (2) to make it easier for an administrator to log in using a less powerful user account for normal desktop activities, but still be able to perform administrative tasks while logged in as a regular user. It is possible to disable the UAC box, but for security purposes, that is not recommended.

PTS: 1   REF: 61-62

8. Explain how to create a file.

ANS:
You can create a file using a particular application, or you can create a file using Windows Explorer or the Computer window. In Explorer and the Computer window, to create a file, right-click in the unused white area in the right pane of the window and select New from the shortcut menu. (Alternately, in the menu bar, you can click File and then click New.) The menu lists applications you can use to create the file in the current folder. Click the application and the file is created. You can then rename the filename. However, to keep the proper file association, don't change the file extension.

PTS: 1   REF: 66

9. Explain how to copy or delete files or folders.

ANS:
To copy a file or folder, right-click it and select Copy from the shortcut menu. Then click in the white area of the folder where the copied item is to go and select Paste from the shortcut menu. You can also drag and drop the item to its new location. If the location is on the same drive as the original location, the file or folder will be automatically deleted from its original location. If you don't want it deleted, hold down the Ctrl key while you drag and drop.

To delete a file or folder using Explorer, right-click the file or folder and select Delete from the shortcut menu. A confirmation dialog box asks if you are sure you want to delete the item. If you click Yes, you send the file or folder and all its contents, including subfolders, to the Recycle Bin. You can also hold down the Shift or Ctrl key as you click to select multiple items to delete, copy, or move at the same time.

PTS: 1   REF: 69

10. Explain why it is important to empty the Recycle Bin.

ANS:

Emptying the Recycle Bin will free up your disk space. Files and folders sent to the Recycle Bin are not really deleted until you empty the bin. To do that, right-click the bin and select Empty Recycle Bin from the shortcut menu.

PTS: 1   REF: 69