



مدونة المناهج السعودية

<https://eduschool40.blog>

الموقع التعليمي لجميع المراحل الدراسية

في المملكة العربية السعودية

Introduction to Computer and Information Technology



أسئلة الحاسب من شابتر 1 - 34

ليست جميع الأسئلة محلولة ،، و أعتذر إن
وُجد أي خطأ.



تحضيرى- الجامعة الإلكترونية 

 @ns1_9

chapter 1

- _____ 1. input
 _____ 2. bit
 _____ 3. byte
 _____ 4. output
 _____ 5. hardware
 _____ 6. central processing unit
 _____ 7. random access memory
 _____ 8. peripheral
 _____ 9. software
 _____ 10. utility software

- a. program that tells the computer what to do
 b. group of 8 bits
 c. area where data and instructions are stored while the computer is working
 d. physical parts of a computer
 e. raw data entered into a computer
 f. program that does maintenance or repair tasks
 g. part of a computer that processes data
 h. basic unit of data a digital computer can understand
 i. hardware separate but connected to the computer
 j. the results of the computer's processing

1-e 2-h 3-b 4-j 5-d 6-g

7-c 8-i 9-a 10-f

Directions: Complete each sentence with information from the chapter.

1. A(n) _____ is a machine that changes information from one form into another.
 2. _____ is a basic operation of computers.
 3. Data and instructions in computers are coded with a(n) _____ because computers only understand two values.
 4. The CPU uses _____ to hold data it is working on.
 5. Data in RAM is _____ when the computer is turned off.

6. A(n) _____ is an example of a connector that works with only one kind of peripheral.
 7. SCSI and USB connectors connect _____ peripherals at the same time.
 8. Some organizations need _____ software programs to do very specific jobs.
 9. _____ software is used to connect to the Internet and send e-mail.
 10. Off-the-shelf software is _____ expensive than custom software because publishers sell more units.

1- computer 2- processing 3-binary code\bits 4-RAM 5-lost 6-serial port 7- several\multiple 8- custom 9- communication 10-less

Chapter 2

- _____ 1. command
- _____ 2. motherboard
- _____ 3. read-only memory
- _____ 4. programmer
- _____ 5. compiler
- _____ 6. supercomputer
- _____ 7. algorithm
- _____ 8. server
- _____ 9. desktop computer
- _____ 10. circuit

1-b 2-d 3-g 4-i 5-h 6-e

7-a 8-j 9-f 10-c

- a. a sequence of instructions
- b. instruction for the computer to do something
- c. a network of connected electronic components
- d. where the CPU is located
- e. high-speed computer for complex work
- f. another name for personal computer
- g. set of chips that starts the computer when it is turned on
- h. language that translates source code into binary form
- i. writes instructions for a computer to follow
- j. computer accessed by users on a network

- 1. What would you most likely use a microphone to input?
 - a. commands
 - b. images
 - c. sound
 - d. text
- 2. Data from which part of a computer is lost when it is turned off?
 - a. the CD-ROM
 - b. the hard drive
 - c. RAM
 - d. ROM
- 3. Which is NOT a component in programs?
 - a. loop
 - b. choice
 - c. sequence
 - d. decision
- 4. Which is an example of a binary number?
 - a. 10011001
 - b. -342
 - c. 67439622
 - d. .0000002
- 5. Which of the following is NOT a task performed by operating systems?
 - a. controlling a printer
 - b. managing memory
 - c. coordinating how programs run
 - d. compiling a program
- 6. What kind of machine is more powerful than a server?
 - a. desktop computer
 - b. portable computer
 - c. mainframe
 - d. handheld computer

1-c 2-c 3-b 4-a 5-d 6-c

Chapter 3

- _____ 1. command
- _____ 2. pointer
- _____ 3. output device
- _____ 4. digital camera
- _____ 5. scanner
- _____ 6. repetitive strain injury
- _____ 7. All-in-One printer
- _____ 8. liquid crystal display
- _____ 9. impact printer
- _____ 10. nonimpact printer

1-j 2-f 3-b 4-h 5-d 6-i

7-e 8-a 9-c 10-g

- a. produces images by sending electrical signals to crystals
- b. any piece of hardware that displays or plays back the result of computer processing
- c. device with hammers or pins that strike a ribbon to leave ink on paper
- d. lets you input printed images into a computer
- e. a printer that contains fax, copier, and scanner capabilities
- f. follows a mouse's movements
- g. device such as an inkjet or laser printer
- h. takes photographs that a computer can read
- i. condition caused by making the same movements again and again
- j. instruction to a software program to take an action

1. Which type of input provides answers to questions issued by programs?
 - a. commands
 - b. data
 - c. responses
 - d. software

2. Which device can be used to connect a computer to the Internet?
 - a. keyboard
 - b. modem
 - c. pointing device
 - d. scanner

3. Which of the following devices can be designed to reduce the problem of RSIs?
 - a. scanner
 - b. digital camera
 - c. monitor
 - d. keyboard

4. What do output devices provide?
 - a. data to be processed
 - b. software code
 - c. text and images only
 - d. results of processing

5. Which of the following is NOT descriptive of a CRT?
 - a. heavy
 - b. uses little power
 - c. heats up easily
 - d. affordable

6. What kind of output device would NOT be used to output images?
 - a. CRT
 - b. LCD
 - c. printer
 - d. speaker

1-c 2-b 3-d 4-d 5-b 6-d

Chapter 4

- _____ 1. compress
- _____ 2. fax machine
- _____ 3. optical character recognition
- _____ 4. digital video camera
- _____ 5. video capture card
- _____ 6. video adapter
- _____ 7. VRAM
- _____ 8. thermal transfer printer
- _____ 9. speech synthesis software
- _____ 10. MIDI

**1-f 2-j 3-d 4-g 5-i 6-h 7-
e 8-b 9-a 10-c**

- a. turns text into audio
- b. prints high-quality output suitable for photos
- c. software that lets the computer play like an electronic instrument
- d. software that scans text and turns it into a digital file
- e. memory on a video adapter
- f. to make files smaller
- g. captures still images, which are then shown rapidly
- h. controls video output to the monitor
- i. converts analog video into digital
- j. scans documents and sends them over phone lines

- 1. To play sound that has been stored in a computer, it must be converted to _____ format.
- 2. Digital photos can be input from a camera by transporting them on a disk or sending them to the computer using a(n) _____.
- 3. _____ software allows people to scan text instead of rekeying it.
- 4. Photos that haven't been taken with a digital camera can still be input into a computer using either a fax machine or a(n) _____.
- 5. The amount of current that a video adapter sends to the monitor determines the _____ display on the monitor.

- 6. Three-dimensional graphics include height, width, and _____.
- 7. DLP projectors are better than LCD projectors for giving a presentation to many people because the _____ appear sharper.
- 8. Standard printers create output by printing tiny _____ on paper.
- 9. Headsets and the room-sized _____ create virtual three-dimensional environments.
- 10. Audio can be output to headphones or _____.

**1- analog 2-cable or wireless
3- ORC 4-scanner 5-color 6-
depth 7- images 8-dots 9-
devices 10- speakers**

Chapter 5

- _____ 1. storage device
- _____ 2. memory
- _____ 3. primary storage
- _____ 4. secondary storage
- _____ 5. read/write device
- _____ 6. random-access storage device
- _____ 7. optical storage device
- _____ 8. hard drive
- _____ 9. read-only device
- _____ 10. CD-ROM drive

- a. temporary workspace on a computer
- b. sometimes used when referring to a computer's RAM
- c. uses laser to read information
- d. users access from and save information to this type of device
- e. common secondary storage device
- f. computer component that retains data even after power is shut off
- g. storage device that lets computer go directly to the needed information
- h. read-only optical device
- i. can only read data from the storage medium
- j. any type of storage device that holds data permanently; not RAM

1-f 2-b 3-a 4-j 5-d 6-g 7-c 8-e 9-i 10-h

- 1. Storage devices _____ information even when a computer is turned off.
- 2. Information saved as a(n) _____ is identified by a unique name.
- 3. The _____ is a set of programs that directs a computer to start up.
- 4. RAM stores its contents _____ and is cleared when the computer is shut down.
- 5. A computer's BIOS is usually stored in a special memory chip, called _____.

- 6. Apple's iPod is an example of _____ that stores data in the popular _____ format.
- 7. The most common secondary storage device is a(n) _____.
- 8. _____ storage allows users to access rarely used computer files.
- 9. A magnetic tape is an example of a(n) _____ storage device.
- 10. _____ lets you store data on a remote computer.

1- save\retain\hold 2-file 3- BIOS 4- temporary 5-ROM 6-portable devices- mp3 7-hard drive 8- archival 9- sequential 10-cloud storage

Chapter 6

- _____ 1. storage media
- _____ 2. platter
- _____ 3. write
- _____ 4. read/write head
- _____ 5. access time
- _____ 6. USB flash drive
- _____ 7. SSD
- _____ 8. data transfer rate
- _____ 9. laser sensor
- _____ 10. pit

1-j 2-b 3-d 4-g 5-a 6-c

7-f 8-i 9-h 10-e

- a. amount of time it takes storage device to begin reading data
- b. one of the disks in a hard drive
- c. removable, portable storage device inserted into a USB slot
- d. save information on a storage medium
- e. indentation on optical disc that does not reflect light
- f. a mass storage device, similar to a hard disk drive that uses flash memory
- g. needle-like device that retrieves and stores data on a magnetic disk
- h. tool in optical drive that reads information
- i. number of bits per second at which data is moved from a storage device to RAM
- j. material that retains stored information saved by a computer storage device

1. What type of media are used in a computer hard drive?
 - a. magnetic
 - b. optical
 - c. solid state
 - d. photo
2. What does the performance of a hard drive affect?
 - a. if a read/write head can store data
 - b. where a read/write head stores data
 - c. how fast a computer reads and writes data
 - d. the computer's memory
3. Which medium stores the least amount of information?
 - a. DVD
 - b. CD
 - c. hard drive
 - d. USB flash drive

4. Optical drives read information by using a _____.
 - a. memory chip
 - b. magnetic sensor
 - c. laser sensor
 - d. binary code
5. How many layers of material make up an optical disc?
 - a. one
 - b. two
 - c. three
 - d. four
6. Which of the following storage devices allow you to write data to a medium multiple times?
 - a. CD-Rs
 - b. read/write storage devices
 - c. DVD-ROMs
 - d. laserdiscs

1-a

2-c

3-b

4-c

5-c

6-b

Chapter 7

- _____ 1. interface
- _____ 2. crash
- _____ 3. graphical user interface
- _____ 4. desktop
- _____ 5. icon
- _____ 6. driver utility
- _____ 7. Plug and Play
- _____ 8. backup utility
- _____ 9. file compression utility

**1-e 2-b 3-g 4-a 5-d 6-c
7-h 8-f 9-i**

- a. area on a computer screen where you perform work
- b. to stop working
- c. program that controls input/output devices
- d. picture that represents something on a computer
- e. on-screen tools that let you use the computer
- f. program that copies a file onto another medium
- g. lets you use a mouse to work with the computer
- h. capable of detecting compatible devices
- i. reduces file size without harming data

- 1. Which of the following is NOT usually handled by the operating system?
 - a. managing programs
 - b. dealing with input/output devices
 - c. publishing Web pages
 - d. interacting with the user
- 2. Which kind of computer operating system usually requires the least amount of user interaction?
 - a. real-time systems
 - b. single-user/single-task systems
 - c. single-user/multitask systems
 - d. multi-user systems
- 3. Which of the following is a key part of a graphical user interface?
 - a. command words
 - b. cursors
 - c. memory
 - d. icons

- 4. Which operating system is found most often on large business and scientific computers?
 - a. Microsoft Windows
 - b. Mac OS
 - c. UNIX
 - d. Linux
- 5. Which of the following do operating systems, application programs, and user data have in common?
 - a. They are all system utilities.
 - b. They are all Windows-based.
 - c. They are all created by the user.
 - d. They are all stored in files.
- 6. What kind of utility is used to reduce the size of a file?
 - a. driver utility
 - b. program utility
 - c. backup utility
 - d. file compression utility

**1-c
2-a
3-d
4-c
5-d
6-d**

Chapter 8

- _____ 1. boot
- _____ 2. POST
- _____ 3. window
- _____ 4. pull-down menu
- _____ 5. pop-up menu
- _____ 6. screen saver
- _____ 7. file extension
- _____ 8. cross-platform compatibility
- _____ 9. disk scanner
- _____ 10. file fragmentation

**1-a 2-f 3-i 4-b 5-h 6-d
7-e 8-g 9-c 10-j**

- a. to start the computer and load the operating system
- b. option that appears when an item is selected from the menu bar
- c. utility that looks for errors in magnetic media
- d. changes the display on the desktop
- e. two to four letters that identify a file's format
- f. series of tests run during the boot process
- g. ability to share files across operating systems
- h. shortcut command that appears anywhere in a window
- i. frame that displays a document or file
- j. having parts of files stored on different areas of a disk or hard drive

1. Which of the following indicates that the computer can accept input from the keyboard and display information on the monitor?
 - a. POST
 - b. BIOS screen
 - c. GUI
 - d. cross-platform application
2. At what point in the boot process can users be asked their username and password?
 - a. at the control panel
 - b. in a screen saver
 - c. in a file manager
 - d. at login
3. If a pop-up menu is context-sensitive, what is it related to?
 - a. file format
 - b. printer settings
 - c. what you are doing
 - d. operating system

4. Which of the following is NOT a system change most users should attempt?
 - a. moving the operating system
 - b. adding a scanner
 - c. changing mouse settings
 - d. removing a program
5. Along with the data itself, which of the following is saved with a file?
 - a. login procedure
 - b. code for the application that created it
 - c. icon that describes it
 - d. maintenance utility
6. Which of the following is one way that a file can be corrupted?
 - a. by deleting it
 - b. by appearing on the desktop
 - c. by moving it to a new folder
 - d. by storing it on a damaged disk

**1-b
2-d
3-c
4- a
5-b
6-d**

Chapter 9

- _____ 1. personal information manager
- _____ 2. integrated software
- _____ 3. productivity suite
- _____ 4. shareware
- _____ 5. freeware
- _____ 6. public domain software
- _____ 7. uninstall
- _____ 8. maximize
- _____ 9. apps
- _____ 10. scroll

- a. software that you can try before purchasing
- b. uncopyrighted software that is given away without cost
- c. software that stores phone numbers and creates schedules
- d. combines several full-featured programs in one package
- e. third-party software programs developed specifically for certain smart phones
- f. to delete a program from the computer
- g. combines basic features of several applications into one package
- h. move from one place in a window to another
- i. to make a window as large as possible
- j. copyrighted software that is given away without cost

**1-c 2-g 3-d 4-a 5-j 6-b
7-f 8-i 9-e 10-h**

1. Which of the following items is NOT an example of application software?
 - a. spreadsheet
 - b. database
 - c. operating system
 - d. word processor
2. Which of the following types of application software combines the basic features of several applications?
 - a. stand-alone program
 - b. integrated software
 - c. productivity suite
 - d. personal information manager (PIM) program
3. Which of the following types of software must be purchased in advance?
 - a. commercial software
 - b. shareware
 - c. freeware
 - d. public domain software

4. Which of the following types of software is available on a try-before-you-buy basis?
 - a. commercial software
 - b. shareware
 - c. freeware
 - d. public domain software
5. Which of the following features allows the user to launch an application?
 - a. Help menu
 - b. menu bar
 - c. title bar
 - d. desktop icon
6. Which of the following tools allows the user to move from one part of a window to another?
 - a. scroll arrows
 - b. scroll icons
 - c. scroll menu
 - d. scroll file

**1-c
2-b
3-a
4-b
5-d
6-a**

Chapter 10

- _____ 1. vertical application
- _____ 2. horizontal application
- _____ 3. beta version
- _____ 4. copy protection
- _____ 5. documentation
- _____ 6. version
- _____ 7. site license
- _____ 8. application workspace
- _____ 9. zoom
- _____ 10. preference

- a. permission to install software on multiple computers
- b. main area of a program window
- c. a program designed for a limited purpose
- d. a general-purpose program that can be used by a variety of users
- e. tool that keeps a user from making unauthorized copies of software
- f. instructions that make using software easier
- g. to change the size of the data on the screen
- h. test copy of software that companies use to find errors
- i. setting defined by the computer user
- j. copy of software that may have new features

1-c 2-d 3-h 4-e 5-f 6-j
7-a 8-b 9-g 10-i

1. Which of the following is an example of a vertical application?
 - a. an Internet browser
 - b. a library card catalog
 - c. a popular personal information manager
 - d. an inexpensive spreadsheet
2. Which of the following is NOT an example of multitasking?
 - a. switching from one program to another
 - b. moving data to a different document
 - c. keeping your desktop clear
 - d. working in three or four applications at once
3. Software documentation can help you do which of the following?
 - a. troubleshoot problems
 - b. obtain a site license
 - c. make an application vertical
 - d. create a new version

4. Which of the following is NOT a characteristic of a maintenance release?
 - a. minor revisions to existing features
 - b. minor features added
 - c. letter added to the version number
 - d. significant improvements
5. Changing the zoom controls allows you to do which of the following?
 - a. change the font of the data on the screen
 - b. adjust the size of the data on the screen
 - c. change the order in which the data is displayed on the screen
 - d. adjust the document's margins
6. Which of the following menus would a word processor most likely have?
 - a. Calculate
 - b. Message
 - c. Sound Controls
 - d. Edit

1-b
2-c
3-a
4-d
5-b
6-d

Chapter 11

Use the Vocabulary

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- _____ 1. insertion point
- _____ 2. word wrap
- _____ 3. pagination
- _____ 4. AutoCorrect
- _____ 5. select text
- _____ 6. Clipboard
- _____ 7. default
- _____ 8. section
- _____ 9. page format

- a. features that identify how and where text is positioned
- b. a separate part of a document with its own formatting
- c. area where cut or copied text is temporarily stored
- d. fixes common spelling mistakes as they are typed
- e. shows the place in a document where text will be added or deleted
- f. automatically moves text to a new line
- g. the automatic division of a document into pages
- h. action made on a block of text before changing it
- i. preset formats

1- e 2- f 3- g 4- d 5- h

6- c 7- i 8- b 9- a

Check Your Comprehension

Directions: Complete each sentence with information from the chapter.

1. The four functions of word processing are writing, editing, _____, and printing.
2. The _____ feature protects you from losing work because you forgot to save.
3. One standard of word processing is to have only one space after each _____.
4. Some programs add extra characters, called a(n) _____, to a file name.
5. The _____ command lets you restore a change that you have just undone.
6. You can repeat a sentence in more than one location in the same document—or in other documents—by using the _____ and Paste commands.
7. _____ programs are used to create high-quality publications that look as if they were produced on a printing press.
8. One _____ equals 1/72 inch.
9. Indentation refers to the _____ between a margin and the text in a paragraph.
10. An example of a(n) _____ is a page number that appears at the bottom of every page in a report.

1- formatting 2- auto save 3- sentence 4- ?

5- redo command \ undoing 6- copy 7- desktop publishing 8- point 9- added space 10- headers & footers

Chapter 12

Use the Vocabulary

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- | | |
|---|--|
| <ul style="list-style-type: none"> _____ 1. Print Layout view _____ 2. Web Layout view _____ 3. pane _____ 4. document map _____ 5. keyboard shortcut _____ 6. function key _____ 7. find and replace _____ 8. paragraph _____ 9. style sheet _____ 10. Print Preview | <ul style="list-style-type: none"> a. text in a document up to a forced new line b. screen that shows a document's text and a list of its headings c. feature that finds a word and puts another in its place d. document display that shows how page elements will look when published on the Web e. print feature that shows everything in a document as it will look when printed f. holds formats for all elements in a document g. document display that shows how page elements will look when printed h. a special key labeled F1, F2, and so on i. combination of keys that carry out an action j. partial window seen in split screen |
|---|--|

1-g 2- d 3- j 4- b 5- i 6- h
7-c 8-a 9-f 10-e

Check Your Comprehension

Directions: Determine the correct choice for each of the following.

- | | | |
|--|--|--|
| <ul style="list-style-type: none"> 1. Which feature allows you to look at two parts of a document at the same time? <ul style="list-style-type: none"> a. side-by-side pages b. split screen c. Document view d. Outline view 2. Which of the following keys is used in many keyboard shortcuts? <ul style="list-style-type: none"> a. Backspace b. Delete c. Escape d. Control 3. In word processing, what determines the end of a paragraph? <ul style="list-style-type: none"> a. 20 lines of text b. 400 words of text c. a forced new line d. a forced new page | <ul style="list-style-type: none"> 4. By choosing "Whole Word" when searching, what will you replace? <ul style="list-style-type: none"> a. every case where the letters appear b. those letters and no others c. all paragraphs with those letters d. the letters only when they make a word 5. How does a document look in Print Preview? <ul style="list-style-type: none"> a. as it appears when printed b. as it appears on the Web c. as it appears on the monitor d. as it appears in computer code 6. Which options are provided in the Print dialog box? <ul style="list-style-type: none"> a. bold or italic type b. number of copies c. size of paper d. inserting graphics | <p>1- b</p> <p>2-d</p> <p>3-c</p> <p>4-c</p> <p>5-a</p> <p>6-b</p> |
|--|--|--|

Chapter 13

Use the Vocabulary

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- | | |
|-------------------------------|--|
| _____ 1. cell | a. rules followed for carrying out the order of more than one mathematical operation |
| _____ 2. cell address | b. mathematical expression that might link numbers in cells |
| _____ 3. active cell | c. part of a spreadsheet to which printing can be limited |
| _____ 4. formula | d. place where a column and row meet |
| _____ 5. function | e. number in a cell |
| _____ 6. value | f. file where you paste shared data |
| _____ 7. label | g. highlighted cell in use, where data or a formula will be entered or edited |
| _____ 8. destination | h. text or text and numbers in a cell |
| _____ 9. print area | i. shortcut to a formula that is used frequently |
| _____ 10. order of evaluation | j. identifies each individual cell |

**1-d 2-j 3-g 4-b 5-i 6- e 7-
h 8-f 9- c 10-a**

Check Your Comprehension

Directions: Determine the correct choice for each of the following.

- | | | |
|--|---|------------|
| 1. Tables in spreadsheets are better than tables in word processors because they | 4. How does an Excel spreadsheet know that =10/12 is a formula and not the date October 12? | |
| a. use numbers only | a. The equal sign (=) signals it. | 1-c |
| b. will have unchanging formats | b. The division (/) sign signals it. | 2-a |
| c. can be easily updated | c. Dates cannot be shown that way. | 3-b |
| d. have accurate data | d. It would not know. | 4-a |
| 2. All changes to values, labels, or formulas in a spreadsheet are made in the | 5. Operations are carried out in the following order: | 5-d |
| a. formula bar | a. A-D-E-M-P-S | 6-c |
| b. cell | b. M-D-E-P-S-A | |
| c. frame | c. P-M-D-A-S-E | |
| d. function line | d. P-E-M-D-A-S | |
| 3. Values, by default, are aligned | 6. It is best to write formulas using cell references so that a spreadsheet | |
| a. to the left | a. has no hidden information | |
| b. to the right | b. has all correct values | |
| c. centered in the cell | c. can be updated easily | |
| d. at the top of the cell | d. can be more easily graphed | |

Chapter 14

Use the Vocabulary

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- _____ 1. range
- _____ 2. worksheet tab
- _____ 3. data series
- _____ 4. increment
- _____ 5. decrement
- _____ 6. syntax
- _____ 7. keyword
- _____ 8. argument
- _____ 9. relative reference
- _____ 10. absolute reference

- a. function name
- b. set of data that changes by a constant value
- c. rules for writing a function
- d. value by which numbers in a series decrease
- e. value by which numbers in a series increase
- f. cell reference that does not change
- g. cell reference that does change
- h. lets you access worksheets in a spreadsheet file
- i. group of cells that might include cells from different columns and rows
- j. reference to cells or range to be acted on by a function

**1- i 2-h 3-b 4-e 5-d 6-
c 7-a 8-j 9-g 10-f**

Check Your Comprehension

Directions: Complete each sentence with information from the chapter.

- 1. To select a column, click on the _____.
- 2. In a spreadsheet, to record results for a race timed to the second and the tenth of a second, use the format _____.
- 3. To delete a column or row, highlight it, go to the _____, and choose Delete.
- 4. The automatic fit feature helps you when making a spreadsheet by automatically _____ a column.
- 5. The _____ feature formats spreadsheets so the data is clear and easy to read.
- 6. Both a(n) _____ and a line chart can display changes in data over time.
- 7. Column charts use _____ to display data.
- 8. _____ are ready-made formulas built into a spreadsheet.
- 9. A(n) _____ reference is automatically updated to reflect its new location if you move it.
- 10. The cell reference _____ shows an absolute reference for the column A1.

1-column heading in the frame. 2-macro 3- edit menu 4- adjust 5-chart 6-column 7- vertical bars 8-auto sum 9- relative 10-??

Chapter 19

Use the Vocabulary

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- | | |
|--------------------------------|---|
| _____ 1. presentation software | a. preformatted version of a certain type of document |
| _____ 2. slide | b. list of ready-to-use drawing tools |
| _____ 3. wizard | c. allows you to change the order of slides by dragging them to different locations |
| _____ 4. template | d. single page in a presentation |
| _____ 5. Slide Show view | e. creates and displays visual information |
| _____ 6. placeholder | f. miniature versions of each slide image |
| _____ 7. AutoShapes | g. area in a presentation that holds data |
| _____ 8. animation | h. can automatically show a presentation in the correct order |
| _____ 9. thumbnail | i. images that show movement |
| _____ 10. Slide Sorter view | j. a series of dialog boxes that provides a step-by-step guide |

1-e 2-d 3-j 4-a 5-h 6-g 7-b 8-l 9-f 10-c

Check Your Comprehension

Directions: Complete each sentence with information from the chapter.

- | | | |
|---|--|--|
| 1. Graphics designed using _____ usually are accompanied by text. | 6. Bulleted lists, flowcharts, and grids can be included in a slide's _____. | 1-presentation software
2- master 3- note page
4- slide show view 5- insert tab 6- placeholder 7- power point
8- important information 9- multi media 10- fonts |
| 2. Using _____ view lets you make universal style changes to every slide, notes page, and/or handout pages. | 7. You can create a multimedia presentation with _____. | |
| 3. The _____ view provides information that only the presenter can see during a presentation. | 8. In a presentation, only the most _____ should be included on slides, not everything you plan to say. | |
| 4. An on-screen method of previewing a presentation's slides is called the _____. | 9. A(n) _____ presentation combines text and graphics with sound and animation. | |
| 5. Animation can be added to some PowerPoint presentations using the _____. | 10. To prevent a presentation from becoming too distracting, do not use more than two _____ on a single slide. | |

Chapter 20

Use the Vocabulary

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- | | |
|--|---|
| <ul style="list-style-type: none"> _____ 1. visual aid _____ 2. digital projector _____ 3. master slide _____ 4. viewable area _____ 5. transition effect _____ 6. self-running presentation _____ 7. rehearsed presentation _____ 8. on-screen presentation | <ul style="list-style-type: none"> a. device used to display an image directly from a computer through a lens and onto a screen b. changing the format of this slide changes all slides of this type c. automatically switches from one slide to the next d. uses a counter to help determine how long a slide should stay on the screen e. graphic that is used to assist in communicating a topic f. a display of slides on a monitor or screen g. technique for switching from one slide to another during a presentation h. portion of a screen on which an image can be seen |
|--|---|

**1- e 2-a 3-b 4-h 5-c 6-g
7-d 8-f**

Check Your Comprehension

Directions: Determine the correct choice for each of the following.

- | | |
|--|--|
| <ul style="list-style-type: none"> 1. What is the overall purpose of presentation software? <ul style="list-style-type: none"> a. show images to large audiences b. provide visual aids for speeches c. provide a way of creating art d. replace human presenters 2. Which color combination is best for printed handouts? <ul style="list-style-type: none"> a. white background with black letters b. black background with green letters c. dark blue background with red letters d. pale yellow background with white letters 3. Which slide usually restates the presentation's main points? <ul style="list-style-type: none"> a. title slide b. master slide c. review slide d. blank | <ul style="list-style-type: none"> 4. Which slide layout is best for adding a two-column bulleted list? <ul style="list-style-type: none"> a. Title and Content b. Blank c. Two Content d. Picture with Caption 5. What kind of presentations are timed in a specific sequence? <ul style="list-style-type: none"> a. self-running b. rehearsed c. transition effect d. slide sorter 6. Which presentation delivery method is useful for long-distance education? <ul style="list-style-type: none"> a. on-screen delivery with a speaker b. Internet broadcast c. interactive presentation at a booth d. printed handouts |
|--|--|

1- b 2-a 3-a 4-c 5-a 6-a

Chapter 23

Use the Vocabulary

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- _____ 1. telecommunications
- _____ 2. analog
- _____ 3. digital
- _____ 4. fiber-optic cable
- _____ 5. microwave
- _____ 6. modulation
- _____ 7. demodulation
- _____ 8. bits per second
- _____ 9. bandwidth
- _____ 10. broadband

1- g 2-d 3-b 4-f 5-e 6-c

7-j 8-i 9-a 10-h

- a. the measure of how much data can be sent through a network connection
- b. system using computer code to carry different kinds of data
- c. changing digital signals to analog
- d. system using electrical signals that match the human voice and other sounds
- e. high-frequency radio waves that carry data
- f. strand of fiberglass that transmits data by pulses of light
- g. using a telephone network to send information
- h. high-speed digital connection of at least 1.5 Mbps
- i. measurement of the speed at which data can be sent in one second
- j. changing analog signals to digital

Check Your Comprehension

Directions: Complete each sentence with information from the chapter.

- 1. The _____ consists of the local loop and long-distance lines that handle data and voice communications.
- 2. The _____ part of your telephone number identifies the area of the country you live in.
- 3. In the long-distance telephone system, _____ largely have replaced twisted pair copper wire.
- 4. Radio and infrared signals make _____ communication possible.
- 5. Within a neighborhood, telephones connect to a common network called the _____.
- 6. One issue DSL users face is that it is _____ to send information than to receive it.
- 7. A fax machine sending a document transmits data into a(n) _____ signal and changes it into a(n) _____ signal.
- 8. _____ offers a way for people across the globe to call each other over the Internet free of charge.
- 9. DSL stands for _____.
- 10. The demand for _____ will continue to grow.

1- ?? 2- area code 3-?? 4- wireless 5- local loop 6-?? 7- digital—analog 8- VIOP 9-d digital subscriber 10- bandwidth

Chapter 24

Use the Vocabulary

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- _____ 1. cellular phone
- _____ 2. cell
- _____ 3. cell site
- _____ 4. leased line
- _____ 5. personal digital assistant
- _____ 6. cable modem
- _____ 7. download
- _____ 8. upload

- a. permanent connection for long-distance cell phone calls
- b. handheld computer
- c. geographic area to which radio signals are sent
- d. phone that uses radio waves to communicate
- e. base station for handling cell calls
- f. to send a file from your computer to another computer
- g. to receive a file from another computer
- h. device that enables a computer to access the Internet through a cable television connection

**1-d 2-c 3-e 4-a 5-b
6-h 7-g 8-f**

Check Your Comprehension

Directions: Complete each sentence with information from the chapter.

1. A cell phone is a type of _____.
2. Cell phones use _____ to communicate.
3. A problem with early cell phones was a lack of _____ for making calls.
4. The central base station manages activities in assigned _____.
5. As a caller moves from one point to another, a new _____ relays the signal from MTSO to MTSO.
6. Linking computers and telephones to work together is called _____.
7. A wireless network, which may be called _____, is a short range network with high-bandwidth for data transfer.
8. DBS service relies on _____ for its transmission signals.
9. All cable modems allow downloading of data, but not all offer the ability to _____ information through the cable television connection.
10. _____ allow computers to communicate with each other without being physically connected.

**1- radio 2- radio waves 3- radio frequency 4-?? 5-?? 6- CTI 7- Wi Fi 8-??
9- uploading 10- wireless network**

Chapter 25

Use the Vocabulary

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- _____ 1. network
- _____ 2. workstation
- _____ 3. protocol
- _____ 4. local area network
- _____ 5. collaborative software
- _____ 6. peer-to-peer network
- _____ 7. file server
- _____ 8. backbone
- _____ 9. point of presence
- _____ 10. virtual private network

- a. network in which all computers are equal
- b. computer connected to a network
- c. local connection to a WAN
- d. standard format and rules
- e. set up on a public network
- f. two or more computers linked together
- g. program that lets people work together closely
- h. high-speed line that carries network traffic
- i. network set up in a limited area
- j. the central computer in one kind of network

1-f 2-b 3-d 4-i 5-g 6-a 7-j

8-h 9-c 10-e

Check Your Comprehension

Directions: Determine the correct choice for each of the following.

1. Which of the following is NOT an example of a physical medium used to connect a network?
 - a. telephone wires
 - b. electric cords
 - c. fiber-optic cables
 - d. radio signals
2. If a company buys one large computer instead of many workstations, which of the following will it supply for its employees to work on?
 - a. a file server
 - b. nodes
 - c. a point of presence
 - d. terminals
3. Which of the following is another name for collaborative software?
 - a. groupware
 - b. network operating system
 - c. local area network
 - d. backbone

4. Which of the following do users of a client/server network have to provide?
 - a. a client
 - b. a file
 - c. a protocol
 - d. an access control
5. Which of the following is used to control a WAN?
 - a. NIC
 - b. VPN
 - c. NOS
 - d. POP
6. Which of the following is used to provide a local connection to a WAN?
 - a. NIC
 - b. VPN
 - c. NOS
 - d. POP

1- b

2-d

3-a

4-d

5-c

6-d

Chapter 26

Use the Vocabulary

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- _____ 1. network architecture
- _____ 2. topology
- _____ 3. contention
- _____ 4. bus topology
- _____ 5. hub
- _____ 6. token
- _____ 7. star topology
- _____ 8. firewall
- _____ 9. cloud computing

- a. science of designing a network
- b. network designed around a hub
- c. software that prevents outsiders from accessing an intranet
- d. layout of a network
- e. two messages trying to travel at once on a network
- f. use of a remote network for data storage
- g. unit of data that prevents collisions in ring topology
- h. network connected to one line
- i. a connection point for all the computers, printers, and other equipment on the network

**1-a 2-d 3-e 4-h 5-i 6-g
7-b 8-c 9-f**

Check Your Comprehension

Directions: Determine the correct choice for each of the following.

- | | | |
|---|--|--|
| <p>1. All networks follow rules developed by the _____.</p> <ul style="list-style-type: none"> a. ISO b. POP c. EDI d. LAN | <p>4. Ethernet deals with contention by _____.</p> <ul style="list-style-type: none"> a. storing messages in the session layer b. assigning messages to a POP c. dumping messages that collide d. delaying messages that collide | <p>1- a</p> <p>2- c</p> <p>3-a</p> <p>4-??</p> <p>5-d</p> <p>6-c</p> |
| <p>2. The OSI model defines how data travels through _____.</p> <ul style="list-style-type: none"> a. a collision b. backbones c. seven layers d. groupware | <p>5. Groupware makes all of the following possible EXCEPT _____.</p> <ul style="list-style-type: none"> a. videoconferences b. e-mail c. electronic bulletin boards d. protocol stacks | |
| <p>3. Early LANs were designed with _____.</p> <ul style="list-style-type: none"> a. bus topology b. ring topology c. star topology d. star bus topology | <p>6. A _____ topology is used in the Internet structure, and it is the most expensive.</p> <ul style="list-style-type: none"> a. tree b. star bus c. mesh d. ring | |

Chapter 27

Use the Vocabulary

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- _____ 1. Internet
- _____ 2. Internet client
- _____ 3. Internet service provider
- _____ 4. username
- _____ 5. search engine
- _____ 6. portal
- _____ 7. hyperlink
- _____ 8. uniform resource locator
- _____ 9. download

- a. highlighted text or graphic in a Web site that directs browser to another URL
- b. software that finds and lists information that matches criteria
- c. computer that requests services from a server
- d. identification while on the Internet
- e. address of documents on the Web
- f. vast network of connected computers
- g. a company that provides access to the Internet
- h. to transfer a file from a server to a client
- i. Internet service that provides a guide to Internet content

**1-f 2-c 3-g 4-d 5-b 6-i 7-a
8-e 9-h**



Directions: Complete each sentence with information from the chapter.

- 1. A network that covers a large area is called a(n) _____.
- 2. The three main parts of the Internet are _____, servers, and protocols.
- 3. The two main groups responsible for inventing the Internet are the U.S. military and _____.
- 4. A(n) _____ is the least expensive way to access the Internet.
- 5. _____ are businesses that provide special software to guide users through Internet content and activities.
- 6. A(n) _____ enables someone to search for a Web site with a keyword.
- 7. In a(n) _____ document, certain words or pictures serve as hyperlinks.
- 8. File _____ is a way of reducing file size.
- 9. A(n) _____ is used to view Web pages.
- 10. You can send a(n) _____ to someone by attaching it to an e-mail message.

**1-WAN 2-internet client 3- university researches
4- dial.up 5- online service 6- hyperlink 7-
hypertext 8- compression 9- web browser 10-
message**

Chapter 28

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- | | |
|-----------------------------|--|
| _____ 1. domain name | a. domain name lookup |
| _____ 2. IP address | b. a special server that matches a domain name to the correct IP address |
| _____ 3. social networking | c. project that tests new network technologies |
| _____ 4. WHOIS database | d. an individual IRC chat group |
| _____ 5. Usenet | e. identifies one or more IP addresses and is used to locate information on the Internet |
| _____ 6. wiki | f. virtual communities that offer real-time chatting options |
| _____ 7. Domain Name System | g. hosts thousands of newsgroups |
| _____ 8. channel | h. a kind of computer that uses a certain type of processor and operating system |
| _____ 9. platform | i. a four-part number separated by periods used to identify a computer connected to the Internet |
| _____ 10. Internet 2 (I2) | j. a webpage where anyone can write or edit content |

1- e 2- i 3-f 4-a 5-g 6-j

7-b 8-d 9-h 10-c



Directions: Complete each sentence with information from the chapter.

- After your Web page request goes to your ISP's POP, it goes to a(n) _____.
 - Software or hardware is said to have _____ platform capability when it can run the same way on more than one platform.
 - The _____ domain identifies which type of organization registered the domain name.
 - _____ is a service organization that maintains a central database of domain names in the United States.
 - When you use your computer to connect to the Internet, the computer is called a(n) _____.
 - The _____ of the network to which your computer connects assigns your IP address.
 - In the Domain Name System, each name has to be _____.
 - You can search the _____ database for the owner and servers of a particular domain.
 - By using _____ people can effectively create their own personal chat channels.
 - In the future, the Internet will need to increase bandwidth and create more _____.
- 1- regional backbone 2-c ross 3-top level 4- InterNIC 5-client 6-?? 7- unique 8-WHOIS 9- hierarchies 10- internet address IP**

Chapter 29

Use the Vocabulary

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- _____ 1. graphical browser
- _____ 2. HTML
- _____ 3. Web server
- _____ 4. Web page
- _____ 5. Web site
- _____ 6. navigation button
- _____ 7. cookie
- _____ 8. e-commerce
- _____ 9. tracking
- _____ 10. style sheet

- a. tool that lets users perform routine operations with a browser
- b. a small file that stores identification information
- c. computer that houses Web sites and sends documents to users
- d. a collection of related documents on the Web
- e. document that describes rules used to define how the elements of the pages in a web site will look
- f. conducting business through a network on the Internet
- g. Web navigation program that shows pictures and text
- h. when a Web site gathers information about your Web browsing activity
- i. single document on the Web
- j. markup language used to format Web documents

**1-g 2-j 3-c 4-i 5-d 6-a 7-b
8-f 9-h 10-e**

- | | | |
|--|---|---|
| <p>1. Which was the first browser that could display graphics as well as text?</p> <ul style="list-style-type: none"> a. Explorer b. Mosaic c. Firefox d. Chrome | <p>4. By which of the following does a search engine search?</p> <ul style="list-style-type: none"> a. URL addresses b. Favorites c. Bookmarks d. keywords | <p>1-b</p> <p>2-d</p> <p>3-a</p> <p>4-d</p> <p>5-a</p> <p>6-c</p> |
| <p>2. Which of the following is NOT part of a complete URL address?</p> <ul style="list-style-type: none"> a. protocol b. server c. path d. author | <p>5. Which of the following has contributed the most to the growth of e-commerce?</p> <ul style="list-style-type: none"> a. traditional stores b. advanced Web browsers c. affordable computers d. personal finance programs | |
| <p>3. Which of the following browser tools will most easily help you revisit a Web site you enjoyed?</p> <ul style="list-style-type: none"> a. Favorites or Bookmarks b. Forward c. Refresh or Reload d. Address box | <p>6. Which of the following is the language used to create Web pages?</p> <ul style="list-style-type: none"> a. FTP b. HTTP c. HTML d. LINUX | |

Chapter 30

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- | | |
|-----------------------------|---|
| _____ 1. hypermedia system | a. lets users retrieve audio and video online |
| _____ 2. dead link | b. symbol that stands for another character |
| _____ 3. WYSIWYG | c. sophisticated Web-page editing programs |
| _____ 4. e-tailer | d. temporarily stored Web pages on a personal computer |
| _____ 5. encryption | e. someone who primarily uses the Web to sell goods or services |
| _____ 6. cookie | f. data a Web site stores on a personal computer hard drive |
| _____ 7. exclusion operator | g. connection to a document that no longer exists or has been moved |
| _____ 8. wildcard | h. minus sign or the word NOT |
| _____ 9. web cache | i. coding used to protect data |
| _____ 10. Web host | j. a company that provides space on a Web server for Web sites |

**1-a 2-g 3-c 4-e 5-i 6-f 7-h
8-b 9-d 10-j**

Directions: Determine the correct choice for each of the following.

- Which of the following indicates that a particular graphic on a Web page is actually a link?
 - The mouse pointer turns into a hand.
 - The mouse pointer changes color.
 - The graphic moves across the screen.
 - The graphic is underlined.
- Which of the following can you use to upgrade a browser to add new features to an application?
 - plug-in program
 - cookie
 - DHTML program
 - WYSIWYG program
- Which of the following is NOT an indicator that a Web site is an accurate source?
 - author is identified on the site
 - information is balanced and factual
 - the link displays at the top of a list of search results
- Which of the following might yield a list of pages with *travel*, *travels*, *traveled*, and *traveling*?
 - wildcard
 - database
 - inclusion operator
 - exclusion operator
- What term is used to describe a traditional retail outlet that does not sell products online?
 - online stores
 - test stores
 - bricks-and-mortar stores
 - click-and-mortar stores
- Which of the following is a secure payment service that consumers can use to complete online transactions?
 - eBay
 - Secure Payment Service
 - PayPal
 - ASCII

Chapter 31

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- _____ 1. attachment
- _____ 2. mailbox name
- _____ 3. e-mail client
- _____ 4. alias
- _____ 5. e-mail server
- _____ 6. bounce message
- _____ 7. spam
- _____ 8. digital signature
- _____ 9. teleconference
- _____ 10. videoconference

- a. part of an e-mail address
- b. a meeting that provides audio and visual contact for people in different locations
- c. a notice that e-mail could not be delivered
- d. junk e-mail
- e. anything sent with an e-mail
- f. a meeting via computers and a network or the Internet, which lets participants talk or exchange text messages
- g. an electronic identifier used to verify the identity of an e-mail sender
- h. an ISP computer that accepts, sends, and delivers e-mail messages
- i. software that lets you create, send, receive, and manage e-mail messages
- j. nickname by which an e-mail user is known

1-a 2-g 3-c 4-e 5-i 6-f 7-h 8-b 9-d 10-j

Check Your Comprehension

Directions: Complete each sentence with information from the chapter.

1. In an e-mail address, the symbol @ represents the word _____.
2. The _____ is an Internet service provider's computer that routes e-mail.
3. In an e-mail message form, the _____ field identifies people other than the main recipient who should receive the message when it is sent.
4. When you _____ an e-mail message you have received, you send it to another person.
5. You will not get a bounce message if you enter an incorrect but _____ address.
6. Some e-mail clients have _____ that you can configure to delete unwanted e-mail.
7. Sometimes, _____ can clog e-mail servers, slowing Internet traffic.
8. Teleconferences and videoconferences save money because people don't have to _____ to attend a meeting.
9. One-to-one _____ allow two people to see and talk to each other on their computers.
10. Many schools now offer classes through the Internet, a practice known as _____.

1-at 2- email server 3-header 4-forward 6- special spam filters 7-?? 8-?? 9-videoconference 10- web based training

Chapter 33

Use the Vocabulary

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- | | |
|---|--|
| <ul style="list-style-type: none"> ___ 1. identity theft ___ 2. phishing ___ 3. global unique identifier ___ 4. computer crime ___ 5. cybercrime ___ 6. downtime ___ 7. software piracy ___ 8. packet sniffer ___ 9. scanning ___ 10. spoof | <ul style="list-style-type: none"> a. using a program to try different passwords until one works b. using a computer to break the law c. using the Internet to break the law d. when workers cannot work because a network is temporarily not available e. illegal copying of software programs f. identification number generated by a piece of hardware or by a program g. use a false IP or e-mail address to gain access to a network h. impersonating someone in order to commit fraud i. using an official-looking e-mail to lure victims into providing personal data j. method of finding another's password |
|---|--|

1- h 2- i 3-f 4- b 5-c 6-d
7-e 8-j 9-a 10-g

Check Your Comprehension

Directions: Determine the correct choice for each of the following.

- | | |
|---|--|
| <ul style="list-style-type: none"> 1. Which of the following should you do cautiously because it could result in sharing personal information without your approval? <ul style="list-style-type: none"> a. buying software b. copying software c. registering at a Web site d. getting warranty protection 2. Which of the following malicious programs is activated by an event or set of circumstances? <ul style="list-style-type: none"> a. worm b. e-mail virus c. time bomb d. Trojan horse 3. Which of the following might cause a business to lose money as a result of computer crime? <ul style="list-style-type: none"> a. faulty product design b. downtime c. economic recession d. fire | <ul style="list-style-type: none"> 4. Which kind of destructive computer program can move from one operating system to another? <ul style="list-style-type: none"> a. macro virus b. Trojan horse c. virus d. worm 5. What is an example of a password that is easy to guess? <ul style="list-style-type: none"> a. a combination of numbers and letters that makes no sense b. a four-letter nickname c. ten letters that do not spell a word d. eight randomly chosen numbers 6. Which of the following is NOT a law enforcement group for fighting cybercrime? <ul style="list-style-type: none"> a. CCIPS b. FDA c. CHIP d. NIPC |
|---|--|

1-c 2-c 3-b
4-d 5-b 6-b

Chapter 34

Directions: Match each vocabulary term in the left column with the correct definition in the right column.

- | | |
|---------------------------------------|---|
| _____ 1. copyright | a. behaving morally |
| _____ 2. power surge | b. unauthorized use of another person's ideas or work without credit |
| _____ 3. fair use | c. a systematic attempt to analyze and diagnose computer or software problems |
| _____ 4. plagiarism | d. duplicate all files on a hard drive |
| _____ 5. uninterruptible power supply | e. laws that protect creative, literary, or artistic work |
| _____ 6. ethics | f. a sharp increase in the power coming into the system |
| _____ 7. reboot | g. turning a computer system off and then on again |
| _____ 8. Safe Mode | h. device that protects a computer from power problems |
| _____ 9. full back-up | i. starting the system with a limited set of files and drivers |
| _____ 10. troubleshoot | j. allowed use of a limited amount of creative work without permission |

1. What is stolen in copyright infringement?
 - a. back-up files
 - b. GUIDs
 - c. someone's work
 - d. someone's identity
2. What should you use to give credit to a source?
 - a. citation
 - b. plagiarism
 - c. infringement
 - d. netiquette
3. Which of the following is used to identify the responsibilities of a user on an organization's computer system?
 - a. copyright laws
 - b. Fair Use Doctrine
 - c. acceptable use policy
 - d. antivirus program
4. Why is copyright infringement a crime?
 - a. It is illegal to make back-up copies of your work.
 - b. It violates the rights of a software publisher to its work.
 - c. It results in identity theft.
 - d. It is theft of another's work.
5. Which of the following can help protect your computer system from a power surge?
 - a. copyright laws
 - b. acceptable use policy
 - c. device driver
 - d. uninterruptible power supply
6. Which of the following lets you revert your system configuration to a previous date and time?
 - a. system restore
 - b. system recovery
 - c. safe mode
 - d. command prompt