

Digital Communications 4.0 Study Guide

Digital Communications 4.01

1. A web cam camera broadcasts images through the Internet.
2. The handwriting recognition technique uses a computer system to recognize characters and other symbols written by hand.
3. Another name for a USB flash drive is a pen drive.
4. If you printed a paper that you had written for your English class, noticed that you had made some mistakes, and no longer had the paper saved on the computer, you could scan the paper into a word processing program which would allow you to be able to correct the mistakes.
5. Biometric devices use authentication techniques such as thumb prints, retina scan, and finger prints. A biometric device does not use a signature as an authentication technique.
6. A notebook is another name for a laptop computer.
7. A handheld portable computer is small enough to be held in one's hand.
8. A tablet computer can be written on with a special purpose pen or stylus and then translates handwriting into text.
9. Aside from size, the principle difference between a notebook computer and a personal computer is portability.
10. A scanner can read text printed on paper and translate the information into a form the computer can use and edit.
11. Barcode scanners are input devices that read bar codes that allow tracking of both assets and inventory, checking items in, managing item locations, maintaining physical inventory, and controlling fixed assets.
12. A web cell phone is a cellular telephone that allows users to access the Internet by wireless communication.
13. A hard disk, flash drive, and CD-ROM are media storage devices. A USB port is NOT a media storage device.
14. Speech recognition is the act of talking to a computer and the computer obeys the commands and translates the speech into written text.
15. Beaming messages, reading books, and maintaining a contact list are uses for a handheld computer. Copying CDs is not a use for a handheld computer.
16. Wireless communication is the ability to send data or video without being connected to a wire, either by telephone or handheld computers.
17. A microphone attaches to a headset to allow the input sound into a computer.
18. A web TV is a small box with a keyboard that connects to a telephone line and television.
19. Access is the act of reading data from or writing data to a storage device.
20. A digital camcorder produces video recordings with highly accurate color and crisp clear resolution that is far better than the resolution offered by television broadcast.
21. Digital camera, web camera, and digital camcorder camera images are saved as data files. A Polaroid camera image would NOT save as a data file.

22. Plasma, high contrast, and LCD are types of display used in flat screen monitors and portable computers. A CRT is not a type of display used in flat screen monitors or portable computers.
23. Communications connectivity is a computer buzzword that refers to a program or a device's ability to link with other programs and devices.
24. A flash drive can be plugged into the USB port to instantly have an additional hard drive.
25. A digital camcorder produces video recordings that are far better than the resolution offered by television broadcast.
26. A GPS is a worldwide radio-navigation system formed from a constellation of 24 satellites and their ground stations.
27. Probes are devices used by scientists with a computer to translate data received.
28. A fire wire device (drive) is a very fast external bus standard that supports data transfer rates of up to 400 mbps.
29. By using three satellites, GPS can calculate the longitude and latitude of the receiver based on where 3 spheres intersect.
30. Selections can be made on touch screens using a finger, pen, and stylus. A selection cannot be made on a touch screen by using a mouse.
31. GPS uses reference points to calculate positions accurate to a matter of meters. These points are called man-made stars.
32. Access is the act of reading data from or writing data to a storage device.

Digital Communications 4.02

1. The only way to load new applications or programs on a handheld is to synchronize a handheld with a computer after downloading the program to a computer.
2. The device used to input data into a PDA is called a stylus.
3. A convenient attachment that can be used with a PDA to input data is a portable keyboard.
4. The two different operating systems found on handheld computers are Palm OS and Windows CE.
5. A power adapter is used to charge a handheld computer.
6. A primary application of the PDA is to keep appointments.
7. A salesperson might use a PDA to keep track of expenses while traveling.
8. Another name for a PDA is handheld computer.

Digital Communications 4.03

1. If Sharon created a business card on her PDA and wants to put it on Pat's PDA, she can beam it.
2. Tracy downloaded a freeware program on her handheld that will let her easily calculate loan payments. Jill would like this program on her handheld computer. What makes it legal for Tracy to beam the program from her handheld to Jill's handheld? The program Tracy downloaded is freeware.
3. The easiest way to share data between two handheld computers is to beam it.
4. John has a document on his PDA. He wants to beam it to his friend Nate who has a PocketPC. When John tries to beam it to Nate, it will not transfer. The

reason for this is: The two devices use different operating systems that are not compatible.

5. The program on a PDA used to store an email address is address book.
6. During a fieldtrip, Ms. Daily wants her students to make notes about the various plants they see, keep track of the names, and give a brief description of each plant. The students use a handheld computer to log this information. Which program would be most useful in organizing this information? Spreadsheet or database program
7. When using the stylus to enter text characters in a handheld device, trace the outline of the letter on the writing area of the handheld.
8. A built-in keyboard can be used other than the stylus to enter text on a handheld computer.
9. By clicking on the hard buttons, main applications are started on a handheld computer.
10. When trying to beam a program from one PDA to another, the lock icon indicates the program cannot be transferred.
11. After a document has been created on the computer in word processing, it can be transferred to the PDA by synchronization.
12. Data can be entered into a PDA with a form of writing called graffiti.
13. Synchronizing a PDA means updating information between the PDA and a computer.
14. One input accessory that can be attached to some PDAs is a scientific probe.
15. One input accessory that can be attached to some PDAs is a keyboard.

Digital Camcorders – digital camcorders put camcorders and computer together. Videos can be transferred directly to a computer without having to convert. Images are better quality.

Tablet PC – a type of notebook computer that has an LCD screen on which the user can write using a special-purpose pen or stylus. The handwriting is digitized and can be converted to standard text through handwriting recognition or it can remain as handwritten text. Tablet PCs also typically have a keyboard and/or a mouse for input.

Interactive Whiteboard – whiteboards are connected to a computer. Input can be accomplished by writing or tapping on the whiteboard through interactive software.

Laptop Computers – a small, portable computer, small enough that it can sit in your lap. Laptop computers are more frequently called notebook computers.

Biometric Devices – uses authentication techniques that rely on measureable physical characteristics that can be automatically checked. Thumbprints, retina scans, finger prints, etc.

Pocket PCs and PDAs – Pocket PC, fits in your pocket, electronic pc that can access the Internet and allows you to do anything you need to do.

Web Cell Phone – a cellular telephone that also allows users to access the Internet via wireless communication

Magnetic Scanner – a device that scans magnetic strips on credit cards and other types of cards to input the data from the strips into a computer

Barcode Scanner – Input devices that read bar codes that allow you to track both assets and inventory, check items in, manage item locations, maintain physical inventory, and control fixed assets.

Web Camera – This is a camera that broadcasts images through the Internet or web cell phone. It is also known as a webcam.

Digital Cameras – People can take pictures and save them to a disk so they can have them on their computer. Digital cameras also provide the option of adding different backgrounds or making the picture look different.

GPS – Global Positioning System, which is a worldwide radio-navigation system formed from a constellation of 24-satellites and their ground stations. A GPS uses “man-made stars” as reference points to calculate positions accurate to a matter of meters. In fact, with advanced forms of GPS, you can make measurements better than a centimeter.

USB Drive – is an exciting advancement in the personal data storage market. Because of its tiny size, large capacities, and use of the USB standard, the USB Drive revolutionizes the way people deal with large amounts of information.

Headset with Microphone – lightweight, allows people to hear game sounds and command notifications. It is designed for comfort through long game sessions. Input device for speech recognition.

Microphones – The attached microphone broadcasts your voice to chat session participants and allows you to issue voice commands. The noise-cancelling microphone has been optimized for voice command recognition and lets you communicate clearly while playing online.

PDA Vocabulary

Beam – method of transferring information from one handheld to another handheld

Cradle – piece of hardware used to synchronize information between the handheld and the desktop computer.

Graffiti – method of entering data using stylus

Hard buttons – part of the handheld that will initiate some of the applications by pressing with your finger

Launcher – soft button used to go to the main screen that displays all of the applications.

Memo Pad – application on handheld computer used to write messages.

PDA – personal digital assistant

Soft buttons – part of the screen area of the handheld device that will initiate some of the applications by using the stylus

Stylus – device used to enter data and make selections on screen of PDA

Synchronize – method of transferring data from handheld to desktop computer and vice versa.

Input Devices Vocabulary

Access — The act of reading data from or writing data to a storage device.

Biometric Device — Authentication techniques that rely on measurable physical characteristics that can be automatically checked.

Barcode Scanner — Input devices that read bar codes that allow you to track both assets and inventory, check items in, manage item locations, maintain physical inventory, and control fixed assets.

Communications Connectivity — A computer buzzword that refers to a program or device's ability to link with other programs and devices.

Digital Camcorder — A camcorder that produced video recordings with highly accurate color and crisp, clear resolution – far better than the resolution offered by television broadcast.

Digital Camera — A camera that images rather than recording on film. Once a picture has been taken, it can be downloaded to a computer and then manipulated and printed.

Fire Wire Device — A very fast external bus standard that supports data transfer rates of up to 400 Mbps.

Global Positional System — By using three satellites, GPS can calculate the longitude and latitude of the receiver based on where the three spheres intersect.

Handheld Computer (Pocket PC) — A portable computer that is small enough to be held in one's hand. Although extremely convenient to carry, handheld computers have not replaced notebook computers because of their small keyboards and screens. The most popular hand-held computers are those that are specifically designed to provide PIM (personal information manager) functions, such as a calendar and address book. The most popular are IPAQ and Palm.

Handwriting Recognition — The technique by which a computer system can recognize characters and other symbols written by hand. In theory, handwriting recognition should free us from our keyboards, allowing us to write and draw in a more natural way. It is considered one of the key technologies that will determine the ultimate success or failure of PDAs and other hand-held devices.

Interactive Whiteboard — Whiteboards that are connected to a computer and input can be accomplished by writing or tapping on the whiteboard through interactive software.

Laptop Computer — A small, portable computer – small enough that it can sit on your lap. Laptop computers are more frequently called notebook computers.

LCD (liquid crystal display) — A type of display used in many portable computers and flat screen monitors. LCD displays utilize two sheets of polarizing material with a liquid crystal solution between them. An electric current passed through the liquid causes the crystals to align so that light cannot pass through them. Each crystal, therefore, is like a shutter, either allowing light to pass through or blocking the light.

Media Storage Device — Objects on which data can be stored. These include hard disks, floppy disks, CD-ROMs, smart media, flash disks, memory sticks, and tapes.

Notebook Computer — An extremely lightweight personal computer. Notebook computers typically weigh less than 6 pounds and are small enough to fit easily in a briefcase. Aside from size, the principal difference between a notebook computer and a personal computer is the display screen. Notebook computers use a variety of techniques, known as flat-panel technologies, to produce a lightweight and non-bulky display screen.

Probe (scientific devices) — These devices are connected to a computer to be able to translate data received.

Scanner — A device that can read text or illustrations printed on paper and translate the information into a form the computer can use.

Speech Recognition — The field of computer science that deals with designing computer systems that can recognize spoken words. Note that voice recognition implies only that the computer can take dictation, not that it understands what is being said.

Tablet PC — A type of notebook computer that has an LCD screen on which the user can write using a special-purpose pen, or stylus. The handwriting is digitized and can be converted to standard text through handwriting recognition, or it can remain as handwritten text. Tablet PCs also typically have a keyboard and/or a mouse for input.

Tablet — An input device that enables the user to enter drawings and sketches into a computer. A digitizing tablet consists of an electronic tablet and a cursor or pen. A cursor (also called a puck) is similar to a mouse, except that it has a window with cross hairs for pinpoint placement, and it can have as many as 16 buttons. A pen (also called a stylus) looks like a simple ballpoint pen but uses an electronic head instead of ink. The tablet contains electronics that enable it to detect movement of the cursor or pen and translate the movements into digital signals that it sends to the computer.

Touch Screen — A touch-sensitive transparent panel covering the screen. Instead of using a device such as a stylus, you can use your finger to point directly to a selection on the screen.

Universal Serial Bus (USB) flash drive (Pen Drive) - Plug this devise into your USB port and you instantly have an additional hard drive.

Webcam — A camera that broadcast images through the Internet through a computer or web cell phone.

Web Cell Phone — A cellular telephone that also allows users to access the Internet via wireless communication.

Web TV — A small box with a keyboard that connects to your telephone line and television. It makes a connection to the Internet via your telephone service and then converts the downloaded Web pages to a format that can be displayed on your TV. These products also come with a remote control device so that you can navigate through the Web.

Wireless Communication — The ability to send data or video without being connected to a wire, either by telephone or handheld computers.

Reasons for Using a Handheld in Business

- Share business cards
- Transfer documents to and from a computer
- Keep appointments
- Maintain a ToDo list
- Store important information (with the memopad or notepad application)
- Connect to the Internet in a wireless environment
- Keep important email messages readily available
- They are small and convenient to use
- The cost is minimal compared to the cost of a computer

Applications That Can Be Downloaded to a Handheld

- Calculators
- Database
- Drawing & Painting
- eBooks
- Email
- Internet Connectivity
- Nutrition, Health, & Exercise
- Photography
- Science
- Sports
- Spreadsheet
- Utility programs, i.e. thesaurus, dictionary
- Word processing