

Study Guide for Digital Communication 1.0

Digital Communications 1.01

1. Data that appears on the monitor is called softcopy.
2. A scanner is used like a copy machine to allow information to be input into the computer.
3. The components that make up a computer system are hardware.
4. Information that leaves the computer is called output.
5. Software packages use to create financial statements using mathematical calculations are electronic spreadsheet.
6. The physical parts of a computer system are called hardware.
7. An input device is used to enter data into a computer.

Digital Communications 1.02

1. System software controls the computer operations.
2. The acronym MS-DOS stands for Microsoft Disk Operating System.
3. The operating system functions include managing input and output, supervising other components, and providing software and hardware management. It does not include providing a user with a password.
4. The operating system capability that permits more than one program to run simultaneously is called multi-purpose.
5. An antiviral utility is used to locate and disinfect a virus.

Digital Communications 1.03

1. Antivirus Program – A computer program that detects viruses and reports files.
2. Bomb – A destructive computer code or virus designed to activate at a specific time.
3. Commercial Software – Software whose copyright is owned by the author/software publisher.
4. Encryption – Process of converting readable data into unreadable characters to prevent unauthorized access.
5. Ethics – The moral guidelines that govern the use of computers and information systems.
6. Freeware – Software that is given away free of charge but whose author still retain all rights.
7. Hacker – A person who secretly gains access to computers and files without permission.
8. Hoax – A program intended to scare users into thinking they have a virus.
9. Password – A safeguard for access to a computer or computer program.
10. Phage – A program that modifies other programs, operating systems, and databases.
11. Piracy – The illegal copying and distribution of software.
12. Public Domain Software – Software that is not copyrighted and is free to copy and distribute.
13. Shareware – Copyrighted software distributed free of charge on a trial basis with payment by the honor system.
14. Trojan Horse – A virus that is disguised as a useful piece of software.
15. Virus – A computer program designed to cause damage to computer files.
16. Worm – A destructive program that bores its way through a computer's files or through a computer's network.

Digital Communications 1.04

1. Fingerprint scanners, retinal recognition systems, and signature verification systems measure biometric identifiers. A handheld scanner is an alternative input device that does not measure biometric identifiers.
2. The digital camcorder input device can be used to send video clips through email to a mobile phone or personal digital assistant (PDA).
3. The alternative input device that is a cross between a laptop and PDA is the tablet PC.
4. A digital camera allows the user to capture pictures and move them to the computer.
5. The headset is the alternative input device which is used in conjunction with voice input programs to enter data.
6. The input device that transfers images or text into a word processing document or email is a flatbed scanner.
7. A biometric device or system measures a human characteristic for the purpose of identification.
8. The alternative input device that uses stylus/recognition technology and handwriting recognition for data entry is the pocket PC.
9. An excellent input device for drawing is the pen and tablet.
10. The software that transforms spoken words into typed text is called speech recognition.
11. Drawing tablets, trackballs, light pens, and touch screens perform the same function as the mouse.
12. The user of a biometric device eliminates the need for passwords, security and privacy, and identification based on physical characteristics. It does NOT eliminate the possibility of stolen passwords increasing.
13. A web TV allows a computer user to access the Internet through the TV.
14. The MOST common commercial scanner for inputting data other than text and graphics is the bar code reader.
15. The alternative input device that allows a user to conduct video conferencing is the web cam.
16. The smart card can be used by identifying an authorized computer user, storing a patient's medical records, and storing cash in a digital form. A smart card cannot be used for accessing another user's password.

Basic Hardware and Software Hardware

The physical components that make up the computer and other devices connected to the computer. This includes monitor, disk drives, cables, printers, keyboards, etc.

Application Software

Computer programs designed to perform specific tasks such as calculating total fundraising sales for FBLA. Word processing software, database software, spreadsheet software, and speech recognition software are examples of application software.

System Software

Computer programs designed to manage basic operations such as starting and shutting down the computer and saving and printing files. System software is divided into operating software, utility programs and language translators. Examples of system software are: MS-DOS (Microsoft

Disk Operating System), WIN 3.1, WIN95, WIN98, or Windows XP systems software. Macintosh computers use System 6, System 7 System 8, or Rhapsody software.

Application Software

The following is a list of the most commonly used types of application software which are also referred to as productivity software.

Software Example Common Uses

Word processing Microsoft Word, Corel; WordPerfect - Write and format memos, letters, and table

Spreadsheet Microsoft Excel, Lotus 1-2-3; Corel Quattro Pro - Prepare financial statements, and other accounting functions

Database management Microsoft Access; Corel Paradox - Organize, manage, sort, search and store data.

Presentation Microsoft PowerPoint - Create slideshows for speeches and other presentations

Graphics PageMaker Produce drawings

Communications Eudora; Microsoft Outlook - Send e-mail over the Internet

Speech Recognition Dragon Naturally Speaking 7.0, IBM Via Voice, MS Office XP/2003,

Speech Recognition, Voice Express - Voice input to create letters, memos, tables,

Hardware Vocabulary - The four main types of hardware are:

Input Device — used to enter information into the computer. Examples are keyboard, joystick, modem, mouse, scanner, voice recognition, touch screen, microphone, light pen, and stylus.

Output Device — displays or prints information produced by a computer. Printers and monitors are examples of output devices. A printer produces a hard copy output while a monitor produces a soft copy output.

Processor — the device that processes data into information.

Storage — the device that saves data so it can be used again. Disk drives are used to store data on disks.

Vocabulary

3.5 magnetic media storage used to store data. - **Floppy Disk**

A **barcode scanner** and **bar code pen** are used to scan information from a UPC label.

A **biometric device** establishes a person's identity based on personal characteristics.

A computer that can be folded up and taken with you. - **Laptop**

A computer that is tall and ready for expansion. - **Tower**

A computer that sits conveniently on a desk - **Desktop**

A **graphical user interface** is a/an menu based interface referred to as icons

A printer that forms images by striking paper. - **Impact**

A printer that forms images w/o striking paper - **Nonimpact**

A program that is designed to cause damage to computer files - **Virus**

A: drive - **Floppy Disk Drive**

An input device is any hardware component that allows the user to enter data.

An input device that can electronically capture an entire page of text or graphics such as photos. -

Scanner

An input device that is small enough to fit into a shirt pocket. - **PDA**

Application software used to input data using speech - **Voice recognition**

Avoid contact with magnets and electromagnetic fields. - **Disk Care**

Avoid heat and sunny locations. - **Disk Care**

Best quality, most expensive printers. - **Laser**

Bores it way through files. - **Worm**

C: drive - **Hard drive**

Command-line Interface — type of user interface in which the user types commands or press special keys on the keyboard to enter data and instructions.

CPU – **Central Processing Unit**

CPU (Central Processing Unit) — the “Brains” of the computer where the work is done.

D: drive - **CD-ROM drive**

Dated viruses. – **Bomb**

Device that can be mounted on the wall, ceiling, or tripod and used for video conferencing. - **Web Cam**

Device that stores cash in digital form. - **Smart Card**

Digital cameras allow the user to review and edit images.

Do not download things off the internet. – **Virus Prevention**

Do not use near water. - **Disk Care**

Encryption is the process of converting data into unreadable form

Graphical User Interface — a menu based interface known as icons (pictures that appear on the desktop environment).

Hard Copy — a printed page of text or graphics.

Hardware — the physical equipment of a computer system that you can touch.

Impact Printers — a printer that strikes the paper in order to form images. Example: Dot

Information can be beamed from one device to another. **PDA**

Inkjet and laser printers are these. – **Nonimpact printers)**

Input device used to input sound, audio - **Microphone**

Input device when loading files. - **Disk Drive, CD-ROM drive**

Input or output device. - **Speakers or Disk Drive**

Keyboard — an input device that enters data with letters, numbers, symbols, and special function keys.

LAN - **Local Area Network**

Matrix Printer

Media storage includes floppy disks and USB Flash Memory, CDs and Zip Drives, and Smart Media and Memory Sticks.

Modem — computer hardware that allows information to be passed through the telephone lines.

Monitor — the video screen of the computer.

Most common input device. - **Keyboard**

Mouse — a pointing device used primarily with graphical interfaces.

MS-DOS - **Microsoft Disk Operating System**

Non-impact Printer — a printer that forms images without striking the paper. Example: Laser or Inkjet Printers. (Laser printers are considered to be the Cadillac of all printers)

One feature of the Global Position System (Device) is to assist with determining the physical location of a person, or object.

Optical reader that uses a laser to read data. - **Bar Code Scanner**

Output — the information that leaves the computer.

Output device when saving files. - **Disk drive, CDROM Drive**

Printed information that is in the form of a more permanent document is **hard copy**.

Program intended to scare users into thinking they have a virus. - **Hoax**

Program that affects a PDA. - **Phage**

Program that is disguised as a real application. – **Trojan Horse**

Public domain software is not given away free of charge.

RAM - **Random Access Memory**

Random Access Memory (RAM) — a type of memory that can be read from and written to by the processor and other devices. Ram memory is volatile.

Read Only Memory (ROM) — a type of memory that is used to store permanent data and instructions because it is nonvolatile.

Read Only Memory (ROM) is a type of memory that is used to store permanent data and instructions because it is nonvolatile.

Recognizes personal characteristics. – **Biometric device**

ROM - **Read Only Memory**

Scanner — used like a copy machine to allow information to be input into the computer.

Softcopy — output viewed on the monitor.

Storage where data is lost if the computer is turned off. - **RAM**

Storage where data is not lost if the computer is turned off. - **ROM**

Temporary storage that is volatile. - **RAM**

The acronym **GPS** stands for Global Positioning System.

The acronym **MS-DOS** stands for Microsoft Disk Operating System.

The cause of computer viruses. - **People**

The printer that produces printed images by striking the paper is a **dot-matrix printer**.

The tablet PC resembles a laptop and notebook.

The virus that does not replicate itself to other programs is a Trojan horse.

Use an anti-viral program. – **Virus Protection**

Used to determine best route between two locations. – **Global Positioning Device**

Video output displayed on this. - **Monitor**

Virus that activates at a specific time. - **Bomb**

Virus that modifies operating system, and databases. - **Phage**

Viruses which eat up memory - **Worm**

Which holds more memory - magnetic or flash memory? – **Flash Memory**

Types of Viruses

Bomb - Destructive computer code or virus designed to activate at a specific time.

Hoax - A program intended to scare users into thinking they have a virus.

Phage - A program that modifies other programs, operating systems, and databases on a Personal Digital Assistant.

Trojan Horse - A virus designed as a useful piece of software.

Virus - A computer program designed to cause damage to computer files.

Worm - Destructive computer program that bores its way through a computer network.

Safe Computing Tips

- Make back-up copies of all files on a regular basis.
- Don't share disks from other computers. This will increase the chance of catching a virus.

- Don't boot from a floppy disk.
- Write-protect your disks.
- Use an anti-virus program to scan your files on a regular basis.
- Use caution when downloading files from the Internet— many are virus infected.
- Never open an e-mail attachment unless you are expecting it and it is from a trusted source.
- Use an anti-virus program that will automatically detect viruses downloaded from the Internet.
- File sharing on a local area network (LAN) may also expose your files to a virus.
- Change passwords frequently.
- Do not use common names; instead use a combination of text, numbers, and symbols for passwords.

Features of Alternative Devices

Digital Camera

1. Images are recorded and stored in digital form
2. Resembles a camera
3. Provides immediate feedback from LCD screen

Web TV

1. Do not have to purchase additional hardware or software
2. Supports video conferencing
3. Can hold video chats on line

Biometric Devices

1. Security measure for protecting company data and personal information
2. Used in business and industry
3. Eliminate the need for passwords

Personal Digital Assistant

1. Small enough to fit into the user's hand or pocket
2. Stylus is used to input data
3. Information can be beamed from computer to PDA

Flatbed Scanner

1. Resembles a tabletop computer printer
2. Functions like a copy machine
3. Captures text, graphics, and other images from printed documents.

Tablet PC

1. Supports handwriting software
2. Cross between a laptop and PDA
3. Uses digital pen and ink output

Digital Camcorder

1. Images can be viewed on TV or copied to VHS tape
2. Provides immediate feedback from LCD screen
3. Images can be stored on flash memory cards

Web Cam

1. Supports video conferencing
2. Can access images through a computer
3. Can be mounted on the wall, ceiling, or tripod.