Chapter 1:

Computer Currents and Internet WAveS

## Multiple Choice:

1. The early machine that could be programmed with punched cards to carry out repetitive calculations was known as a(n):
   1. Analytical Engine.
   2. Difference Engine.
   3. CPU.
   4. Electron Engine.

**Answer:** A **Reference:** Computing Before Computers **Difficulty:** Moderate

1. All computers take in information which, in computer terminology, is known as:
   1. input.
   2. softcopy.
   3. processing.
   4. CPU data.

**Answer:** A **Reference:** The Information-Processing Machine **Difficulty:** Easy

1. Output is:
   1. information that computers take in.
   2. not available through most computer systems.
   3. information that computers give out.
   4. the source information that enters a computer system.

**Answer:** C **Reference:** The Information-Processing Machine **Difficulty:** Easy

1. Modern computers are general-purpose tools, not specialized devices. \_\_\_\_\_\_\_\_\_\_\_\_ are primarily responsible for this diversity.
   1. Hardware devices
   2. Software programs
   3. Input devices
   4. Changes in hardware features

**Answer:** B **Reference:** The Information-Processing Machine **Difficulty:** Moderate

1. What controls the process of what happens to the input that enters the computer until it becomes output?
   1. Data
   2. The peripheral devices
   3. Hardware
   4. Software

**Answer:** D **Reference:** The Information-Processing Machine **Difficulty:** Moderate

1. The physical components of the computer are known as:
   1. software.
   2. keyboard.
   3. hardware.
   4. data.

**Answer:** C **Reference:** The Information-Processing Machine **Difficulty:** Easy

1. Two computer terms that are synonymous and used interchangeably are:
   1. hardware and firmware.
   2. data and output.
   3. keyboard and mouse.
   4. software and programs.

**Answer:** D **Reference:** The Information-Processing Machine **Difficulty:** Moderate

1. The real power, flexibility, and functionality of a computer is in the:
   1. software.
   2. CPU.
   3. hardware.
   4. data.

**Answer:** A **Reference:** The Information-Processing Machine **Difficulty:** Moderate

1. When a user writes a term paper on a computer, a(n) \_\_\_\_\_\_\_\_\_\_\_\_ is controlling what the hardware does.
   1. firmware program
   2. software program
   3. hardware device
   4. input device

**Answer:** B **Reference:** The Information-Processing Machine **Difficulty:** Moderate

1. The first computers were designed to:
   1. perform repetitive calculations and tasks.
   2. compose music.
   3. use punch cards.
   4. assist the U.S. government with defense.

**Answer:** A **Reference:** The First Real Computers **Difficulty:** Challenging

1. The first general-purpose commercial computer was known as the:
   1. UNIVAC I.
   2. ENIAC.
   3. Difference Engine.
   4. Analytical Engine.

**Answer:** A **Reference:** The First Real Computers **Difficulty:** Challenging

1. In the late 1940s and 1950s, what invention helped computers become more widely used by businesses, as well as in science and engineering?
   1. Transistors
   2. Vacuum tubes
   3. CPU’s
   4. RAM

**Answer:** A **Reference:** Evolution and Acceleration **Difficulty:** Challenging

1. What invention, developed in 1948, replaced vacuum tubes?
   1. Silicon wafers
   2. Transistors
   3. The CPU
   4. RAM

**Answer:** B **Reference:** Evolution and Acceleration **Difficulty:** Challenging

1. Due to a need for smaller and more powerful computers, the \_\_\_\_\_\_\_\_\_\_\_ was invented and replaced the transistor-based computers by the mid-1960s.
   1. keyboard
   2. RAM chip
   3. vacuum tube
   4. integrated circuit

**Answer:** D **Reference:** Evolution and Acceleration **Difficulty:** Challenging

1. The name of the rule or law that predicted the power of silicon chips (the CPU) would double about every 18 months is:
   1. the CPU doubling rule.
   2. Moore’s Law.
   3. the Intel Law.
   4. Smith’s Law.

**Answer:** B **Reference:** Evolution and Acceleration **Difficulty:** Challenging

1. The invention of the \_\_\_\_\_\_\_\_\_\_\_ has had the greatest impact on computers.
   1. CPU
   2. RAM chip
   3. microprocessor
   4. monitor

**Answer:** C **Reference:** The Microcomputer Revolution **Difficulty:** Moderate

1. \_\_\_\_\_\_\_\_\_\_\_\_ developed the microprocessor.
   1. Intel
   2. IBM
   3. Microsoft
   4. Apple

**Answer:** A **Reference:** The Microcomputer Revolution **Difficulty:** Moderate

1. The Silicon Valley, where numerous microprocessor manufacturing companies are located, is in:
   1. Oregon.
   2. California.
   3. Texas.
   4. Washington.

**Answer:** B **Reference:** The Microcomputer Revolution **Difficulty:** Easy

1. PC stands for:
   1. personal comprehension.
   2. personal computing.
   3. personal computer.
   4. personal calculations.

**Answer:** C **Reference:** The Microcomputer Revolution **Difficulty:** Easy

1. Computers that once occupied full rooms, but are now approximately the size of a refrigerator, are used by large organizations and known as:
   1. terminals.
   2. personal computers.
   3. mainframe computers.
   4. supercomputers.

**Answer:** C **Reference:** Mainframes and Supercomputers **Difficulty:** Moderate

1. The communication process between a mainframe and several users simultaneously is known as:
   1. timesharing.
   2. networking.
   3. serving.
   4. processing.

**Answer:** A **Reference:** Mainframes and Supercomputers **Difficulty:** Moderate

1. A keyboard and screen that has little, if any, local processing power is known as a:
   1. supercomputer.
   2. mainframe computer.
   3. timesharing device.
   4. terminal.

**Answer:** D **Reference:** Mainframes and Supercomputers **Difficulty:** Moderate

1. Supercomputers:
   1. are smaller in size and processing capability than mainframe computers.
   2. are common in the majority of U.S. households.
   3. contain thousands of microprocessors.
   4. are rarely used by researchers due to their lack of computing capacity.

**Answer:** C **Reference:** Mainframes and Supercomputers **Difficulty:** Moderate

1. What is a computer that provides software and other resources to computers over a network?
   1. Server
   2. Workstation
   3. Mainframe
   4. Supercomputer

**Answer:** A **Reference:** Servers, Workstations, and PCs **Difficulty:** Moderate

1. When a user has access to a high-end desktop computer with a large amount of processing power, he or she is using a:
   1. server.
   2. workstation.
   3. supercomputer.
   4. terminal.

**Answer:** B **Reference:** Servers, Workstations, and PCs **Difficulty:** Moderate

1. When multiple users sharing data and hardware resources need access to one application, a \_\_\_\_\_\_\_\_\_\_\_\_ is necessary.
   1. mainframe
   2. server
   3. supercomputer
   4. workstation

**Answer:** B **Reference:** Servers, Workstations, and PCs **Difficulty:** Easy

1. Extra-light, ultramobile notebook computers are sometimes known as:
   1. workstations.
   2. notebooks.
   3. subnotebooks.
   4. laptops.

**Answer:** C **Reference:** Portable Computers **Difficulty:** Moderate

1. In regard to a notebook computer, a docking station allows a user to:
   1. connect three or more notebook together into a network.
   2. hook up the notebook computer to optical drives such as a CD or DVD that are never included on notebook computers.
   3. lock the notebook into a secure location because of the high risk of theft of notebook computers.
   4. connect the notebook to other external devices.

**Answer:** D **Reference:** Portable Computers **Difficulty:** Moderate

1. A computer small enough to fit into a shirt pocket or purse is a:
   1. notebook.
   2. subnotebook.
   3. handheld computer.
   4. mainframe.

**Answer:** C **Reference:** Portable Computers **Difficulty:** Easy

1. Probably the fastest growing segment of the PC market is the area of:
   1. supercomputers.
   2. workstations.
   3. portable computers.
   4. Macintoshes by Apple.

**Answer:** C **Reference:** Portable Computers **Difficulty:** Moderate

1. A negative aspect of portable computers is:
   1. the low price, thus low quality.
   2. the relatively high price and upgrade difficulties.
   3. their non-portability since they all weigh at least 10 pounds.
   4. the unlikelihood that the same high quality software can be loaded on a portable.

**Answer:** B **Reference:** Portable Computers **Difficulty:** Moderate

1. A handheld computer known as a PDA stands for:
   1. personal digital assistant.
   2. personalized digital assistance.
   3. planned digital associate.
   4. practical digitized associate.

**Answer:** A **Reference:** Portable Computer **Difficulty:** Challenging

1. Special-purpose computers use silicon chips that have the program etched into them. This hybrid of hardware and software is called:
   1. networked.
   2. firmware.
   3. specialized software.
   4. embedded.

**Answer:** B **Reference:** Embedded Computers and Special-Purpose Computers **Difficulty:** Easy

1. A LAN shares all of the following EXCEPT:
   1. resources such as storage.
   2. processing power.
   3. resources such as printers.
   4. resources such as monitors.

**Answer:** D **Reference:** The Emergence of Networks **Difficulty:** Moderate

1. The primary difference between a LAN and a WAN is the:
   1. distance that the network spans.
   2. size of the servers.
   3. difference in the variety and number of output devices.
   4. power of the terminals.

**Answer:** A **Reference:** The Emergence of Networks **Difficulty:** Challenging

1. What is the name of the experimental network developed by the U.S. government that eventually became the Internet?
   1. ARPA-INTERNET
   2. ARPA wide-area network
   3. World Wide Web
   4. ARPANET

**Answer:** D **Reference:** The Emergence of Networks **Difficulty:** Challenging

1. How are the World Wide Web (WWW) and the Internet different?
   1. They aren’t different; they are two different names for the same thing.
   2. The Internet is text only; the WWW incorporates multimedia.
   3. The Internet is primarily used by businesses; the WWW can be used by home users.
   4. The WWW is faster than the more archaic Internet.

**Answer:** B **Reference:** The Internet Explosion **Difficulty:** Challenging

1. Which country leads the world in Internet access?
   1. U.S.
   2. Europe (as a whole)
   3. Japan
   4. China

**Answer:** A **Reference:** The Internet Explosion **Difficulty:** Moderate

1. Private networks that are accessed from users within an organization and have characteristics similar to the Internet are known as:
   1. intranets.
   2. wide area networks.
   3. Internets with rights.
   4. workstations.

**Answer:** A **Reference:** The Internet Explosion **Difficulty:** Moderate

1. Computers have changed the way humans go about their day-to-day lives. Events and ideas radically change the way people work, live, and think. This dramatic change is known as a(n):
   1. paradigm shift.
   2. industrial revolution within a country.
   3. shift in traditions.
   4. counterculture.

**Answer:** A **Reference:** Into the Information Age **Difficulty:** Moderate

1. The change in our history that moved large masses of the population from farms to factories was the:
   1. agricultural age.
   2. paradigm shift.
   3. industrial age.
   4. information age.

**Answer:** C **Reference:** Into the Information Age **Difficulty:** Easy

1. The shift from an industrial economy to an economy based on the value of information is known as the:
   1. paradigm shift.
   2. agricultural age.
   3. industrial revolution.
   4. information age.

**Answer:** D **Reference:** Into the Information Age **Difficulty:** Moderate

1. The software tools that enable a user to interact with a computer for specific purposes are known as:
   1. hardware.
   2. networked software.
   3. shareware.
   4. applications.

**Answer:** D **Reference:** Applications: Computers in Action **Difficulty:** Moderate

1. Applications that are designed to do calculations, such as the expenses of a student or sales of a business, are known as:
   1. databases.
   2. tax software.
   3. spreadsheets.
   4. word processors.

**Answer:** C **Reference:** Applications: Computers in Action **Difficulty:** Easy

1. Tasks that have traditionally been performed by people but are now duplicated in an application are part of the software that is known as:
   1. artificial intelligence.
   2. networking.
   3. artificial knowledge software.
   4. networking knowledgeable software.

**Answer:** A **Reference:** Applications: Computers in Action **Difficulty:** Moderate

1. When a student posts a clip from a recent movie on her Web site, the ethical issue of \_\_\_\_\_\_\_\_\_\_\_\_ is at issue.
   1. protecting intellectual property
   2. protecting privacy
   3. using private university property for personal gain
   4. All of these answers are ethical issues related to this action.

**Answer:** A **Reference:** Implications: Social and Ethical Issues **Difficulty:** Moderate

1. The future could bring the emergence of \_\_\_\_\_\_\_\_\_\_\_\_, computer chips embedded within human bodies.
   1. bio-electronic imaging
   2. human-scanning technology
   3. digital-assistance human-existence technology
   4. biodigital technology

**Answer:** D **Reference:** Implications: Social and Ethical Issues **Difficulty:** Challenging

## Fill in the Blank:

1. In computer language, information that is taken into the computer is known as \_\_\_\_\_\_\_\_\_\_\_\_.

**Answer:** input **Reference:** The Information-Processing Machine **Difficulty:** Easy

1. The \_\_\_\_\_\_\_\_\_\_\_\_ is really what controls the processing and activities of a computer.

**Answer:** software **Reference:** The Information-Processing Machine **Difficulty:** Moderate

1. \_\_\_\_\_\_\_\_\_\_\_\_ is the prediction by a chairman of Intel in the 1960’s that CPU power would double approximately every 18 months.

**Answer:** Moore’s Law **Reference:** Evolution and Acceleration **Difficulty:** Challenging

1. Thomas Watson Sr. founded the \_\_\_\_\_\_\_\_\_\_\_, which had a huge effect on the advancement of computers.

**Answer:** microprocessor **Reference:** The Microcomputer Revolution **Difficulty:** Challenging

1. A bank teller or a travel agent most likely will use a(n) \_\_\_\_\_\_\_\_\_\_\_\_, which is a combination of keyboard and monitor with little, if any, local power.

**Answer:** terminal **Reference:** Mainframes and Supercomputers **Difficulty:** Moderate

1. \_\_\_\_\_\_\_\_\_\_\_\_ are the most powerful of all computers.

**Answer:** Supercomputers **Reference:** Mainframes and Supercomputers **Difficulty:** Easy

1. A networked computer that contains software and data for other computers is a(n) \_\_\_\_\_\_\_\_\_\_\_\_.

**Answer:** server **Reference:** Servers, Workstations, and PCs **Difficulty:** Challenging

1. The IBM Personal Computer came out in the year \_\_\_\_\_\_\_\_\_\_\_.

**Answer:** 1981 **Reference:** Servers, Workstations, and PCs **Difficulty:** Challenging

1. A light-weight, flat-screen, battery-powered computer carried in a briefcase is known as a(n) \_\_\_\_\_\_\_\_\_\_\_.

**Answer:** portable computer or Subnotebook **Reference:** Portable Computers **Difficulty:** Moderate

1. Handheld computers are referred to as \_\_\_\_\_\_\_\_\_\_\_\_.

**Answer:** personal digital assistants or PDAs **Reference:** Portable Computers **Difficulty:** Moderate

1. Over 90% of the world’s microprocessors are found in \_\_\_\_\_\_\_\_\_\_\_\_ computers.

**Answer:** embedded **Reference:** Embedded Computers and Special-Purpose Computers  
**Difficulty:** Moderate

1. WAN stands for \_\_\_\_\_\_\_\_\_\_\_.

**Answer:** wide area network **Reference:** The Emergence of Networks **Difficulty:** Challenging

1. A(n) \_\_\_\_\_\_\_\_\_\_\_\_ is a device that translates computer data into signals that can be read through telephone lines.

**Answer:** modem **Reference:** The Emergence of Networks **Difficulty:** Moderate

1. The global collection of networks is known as the \_\_\_\_\_\_\_\_\_\_\_\_.

**Answer:** Internet **Reference:** The Emergence of Networks **Difficulty:** Easy

1. In the early 1990s, the Internet transformed into a multimedia environment known as the \_\_\_\_\_\_\_\_\_\_\_\_.

**Answer:** World Wide Web **Reference:** The Internet Explosion **Difficulty:** Easy

1. A(n) \_\_\_\_\_\_\_\_\_\_\_\_ is a program that allows access to the WWW.

**Answer:** Web browser **Reference:** The Internet Explosion **Difficulty:** Moderate

1. A(n) \_\_\_\_\_\_\_\_\_\_\_\_ is a private network inside an organization that functions much like the Internet.

**Answer:** intranet **Reference:** The Internet Explosion **Difficulty:** Challenging

## Matching:

1. Match the following terms to their meanings:

I. Intranet A. a private intra-organizational network

II. Internet B. the way that millions of Web pages are tied together

III. ARPANET C. the graphical portion of the Internet

IV. World Wide Web D. program to cruise the WWW

V. modem E. linking computers together to share data and devices

VI. LAN F. a hardware device that translates computer data into signals that can be read over standard telephone lines

VII. Web browser G. the predecessor of the Internet

VIII. hypertext link H. global collection of networks

**Answers:** A, H, G, C, F, E, D, B **Reference:** Computer Connections: The Internet Revolution  
**Difficulty:** Moderate

1. Match the following terms to their meanings:

I. subnotebook A. a computer that provides software, data, and other resources to other computers over a network

II. server B. a high-end PC

III. workstation C. handheld computer

IV. supercomputer D. extra-light, ultra-mobile notebook computer

V. mainframe E. refrigerator sized computer used by large organizations

VI. terminal F. just a monitor and keyboard

VII. PDA G. the fastest, most powerful computer

**Answers:** D, A, B, G, E, F, C **Reference:** Computers Today: A Brief Taxonomy  
**Difficulty:** Moderate