READING 1

Computers, along with the Internet, are undoubtedly the most important inventions in human history. They have changed our lives and our culture in unimaginable ways. Who can think of a world without computers nowadays? Computers are everywhere; daily tasks such as checking email or advanced calculations like climate change predictions make computers essential even to just preserve existence. We cannot forget the Internet, the worldwide computer network that allows us to combine the power of millions of computers and undertake projects, which would have seemed like science fiction only 20 years ago.

TAXONOMY OF COMPUTERS

There are many types of computers, each specially designed for its own purpose. They can be sorted into two main categories, Personal Computers (PCs), those directed to common people, and Servers, designed to provide professional services to organizations, and normally controlled by Information Technology (I.T.) professionals.

Supercomputers. They are highly-tuned computer clusters using multi-core processors to perform advanced calculations; supercomputers are the most powerful computers.

Because of their size and expense, supercomputers are relatively rare. Supercomputers are used by universities, government agencies, and large businesses.

They are used mainly for scientific purposes such as climate change control, brain simulation, aerodynamic design simulation, processing of geological data, microbiology models, etc.

Mainframe is usually slower, less powerful and less expensive than supercomputers. A technique that allows many people at terminals to access the same computer at one time is called time sharing. Mainframes are used by banks and many businesses to update inventory, etc.

They can support hundreds or thousands of users, handling massive amounts of input, output, and storage. They are used in large organizations where many users need access to shared data and programs, and also used as e-commerce servers, handling transactions over the Internet.

Servers. Servers are enhanced PCs dedicated to running programs that offer services to other computers. They have to be connected to networks to be able to offer their services and to share their resources with other computers. They need to be very powerful. In order to satisfy the demand of the client computers, the hardware needs to be very sophisticated, resulting in the most expensive type of computers.

Clusters. A cluster is a group of linked servers, typically mounted in racks. All these servers in the rack are connected through high speed fiber-optic networks to work as a single computer.

PERSONAL COMPUTERS

Desktop Computers These are the most common type, mainly because they are used by non-professionals for general purposes (word processing, household accounting, videogames, etc.). It is likely to find stand-alone desktop computers, that is, desktop PCs which are not connected to the Internet or any kind of network.

Workstations It is not easy to distinguish workstations from desktop computers. In fact, they look very much alike. Workstations are powerful single-user computers and they are used for

tasks that require a great deal of number-crunching power, such as product design and computer animation. Workstations are often used as network and Internet servers. They are used by people to do their jobs. They are often connected to private networks (intranets) or to public networks (Internet).

Laptops or Notebooks These are portable PCs that integrate the keyboard, the screen and a pointing device (normally a touchpad or a trackball working as a mouse), along with all the processing hardware like a processor, memory, etc. Laptops or notebooks are folded shut for transportation, and thus are suitable for mobile use.

Netbook These are small versions of laptops; they are even more portable and cheaper than laptops. However, their processing power is limited due to omitting certain features (e.g., the optical drive), featured smaller screens and keyboards, although they can run any type of application.

Smartphones This type of computer refers to those computers built to be held with a hand. Normally these computers run a reduced operating system providing the ability to also work as a telephone or as personal information manager. They also include web browsers to connect to the Internet via Wi-Fi, audio and media players that are very easily managed through their touchscreens. It is becoming increasingly common to include a QWERTY keyboard to make it easier to type long sms messages or emails.

Tablet computer It is resulting from the integration of a smartphone with a laptop computer. It is designed primarily as a platform for audio visual media including e-books, music, movies, magazines, etc. It provides an Internet connection through broadband Internet phone services.

Tablets let you do many of the same things a computer can. They are most often used to browse the Internet, read e-mail, browse social network sites, and watch videos, which is why most people consider them consumption devices.

Wearable computers Many experts think that these computers are the future of personal computing. They are called wearable because you can wear them just as you wear clothes. They will help us to evolve by improving our 5 traditional senses beyond our imagination. Wearable computers are basically desktop or notebook computers that have been scaled down for body-wear.

1. Fill in the blanks with the previous types of computers.

a. _____ are used by people who need the power of a desktop system, but also portability.

b. _____ are used for problems requiring complex calculations.

c. Banks used to work with _____ to store information.

d. _____ lack the power of a desktop or notebook PC, but offer features for users who need limited functions and small size.

e. A _____ is a thin, flat mobile computer with a touchscreen display, which is usually in color, processing circuitry, and a rechargeable battery in a single device.

f. _____ are miniature electronic devices that are worn under, with or on top of clothing.

g. _____ is a group of servers that work as a single computer.

h. _____ are the most common type of PC.

2. Match each term with the correct definition.

1. purpose

2. powerful

3. time sharing

4. enhanced

5. number-cruncher

6. touchscreen

7. broadband

8. e-commerce

9. fiber-optic

a. to raise to a higher degree; intensify; magnify.

b. having or exerting great power or force.

c. a person or thing that performs a great many numerical calculations, as a financial analyst, statistician, computer, or computer program.

d. business transactions conducted on the internet.

e. the technology of sending computer data, video images, voice signals, etc., through transparent fibers that allow the light to be transmitted around curves.

f. the reason for which something exists or is done, made, etc.

g. a computer system in which users at different terminals use a single computer at the same time.

h. a computer display that can respond to the location of a finger on its surface.

i. a transmission technique using a wide range of frequencies that enables messages to be sent simultaneously, used in fast internet connections.