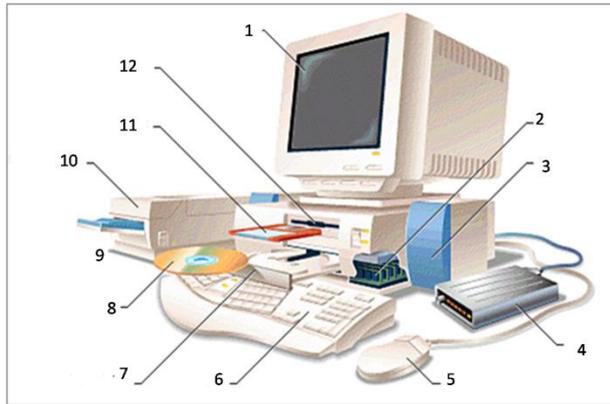# UNIT 1: CONFIGURATION

I. Vocabulary

A. In pairs, discuss these questions.

-Have you got a computer at home, school or work? What kind is it?

-How often do you use it? What do you use it for?

-What are the main components and features of your computer system?

B. In pairs, label the elements of this computer system.

C.Use the diagram to help you match the terms in the box with the appropriate explanation or definition below.
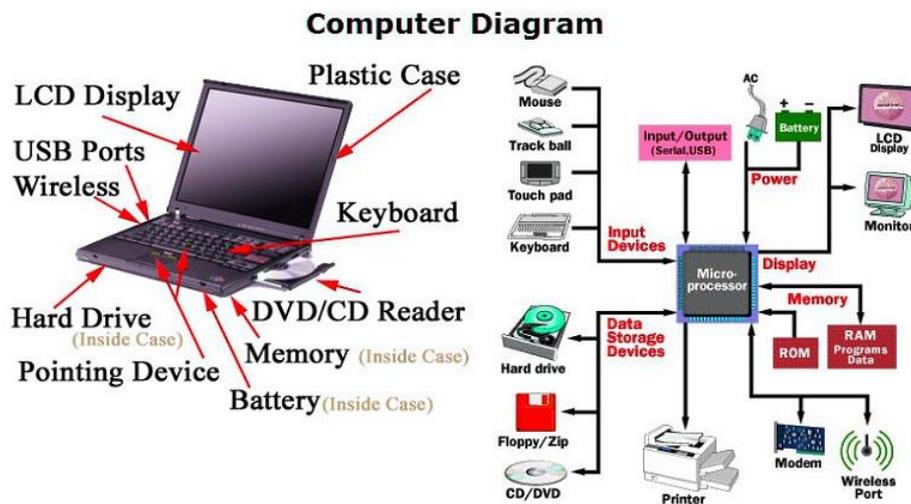
software	*peripheral devices*	monitor	output	port
Central Processing Unit	floppy disk	hardware	*input*	

1 The brain of the computer.

2. Physical parts that make up a computer system.

3. Programs which can be used on a particular computer system.

4. The information which is presented to the computer.

5. Results produced by a computer.

6. Hardware equipment attached to the CPU.

7. Visual display unit.

8. Small device used to store information. Same as 'diskette'.

9. Any socket or channel in a computer system into which an input/output device may be connected.

II. Exercises

### Task 1. Complete the text below with the words in the box.

systems   memory   task   terminals   desktop   CAD   applications

The first microcomputers, also known as (1)'.......................' PCs, were for single users only, and this clearly distinguished them from minicomputers. Another important difference was that 'minis' were much more powerful than 'micros': they could execute more than one (2) .... simultaneously and were used as file servers for (3) .... and workstations. However, modern microcomputers have operating (4) .... and network facilities that can support many simultaneous users. Today, most personal computers have enough (5)..................... to be used for word processing and business (6)............................ . Some PCs can   even   handle multitasking   and (7)....................... applications. As a result, the division between 'minis' and 'micros' is now disappearing.

Task 2. About the keyboard

A. Look at the picture of a PC-compatible keyboard on the following page and identify these groups of keys.

1   **Alphanumeric keys:** arranged in the same order as a typewriter.
2   **Function keys:** used by various programs to instruct the PC to perform specific tasks such as Save, Copy, Cut, Paste, Help, etc.
3   **Numeric keypad:** set of numeric or editing keys. The Num Lock key is used to switch from numbers to editing functions.
4   **Editing keys:** cursor and other keys usually used within word processors to page up and down in a long document or to edit text (using Insert or Delete keys)
5   **Special keys:** used to issue commands or to produce alternative characters in key combinations, for example, the Alt key.
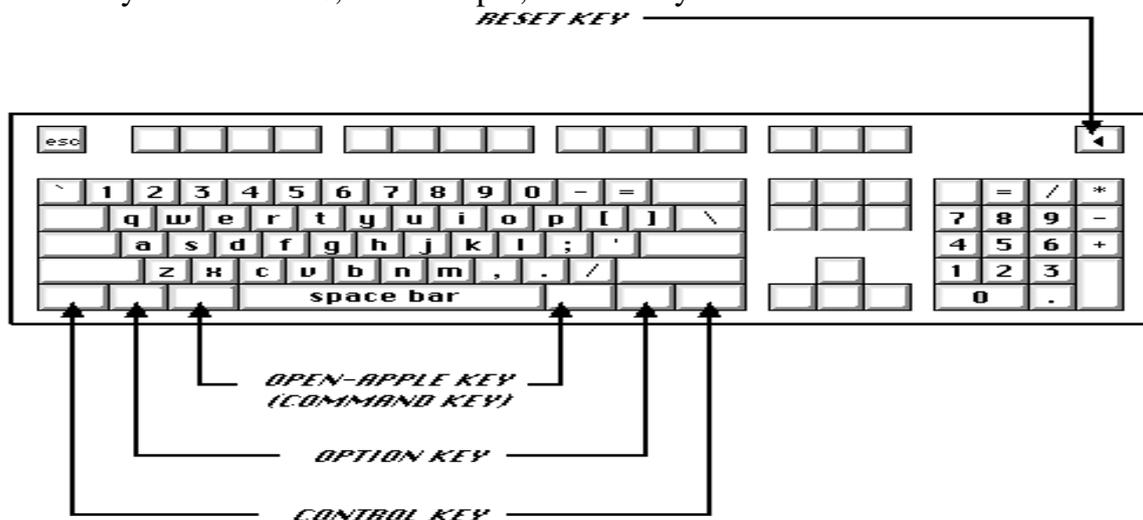
A PC-compatible keyboard

B. Match these descriptions with the names of keys on the right. Then find them on the keyboard.

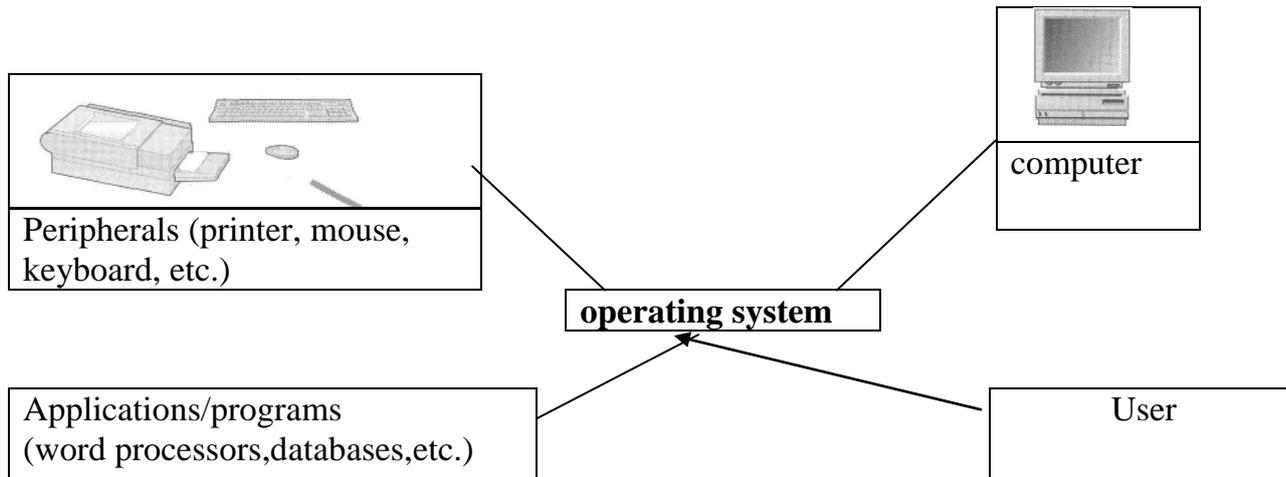|	
1 A long key at the bottom of the keyboard. Each time it is pressed, it produces a blank space. (=…………….)	**arrow keys**

2   It moves the cursor to the beginning of a new line. It is also used to confirm commands. (=…………….)

3   It stops a program without losing the information from the main memory. Sometimes, its use depends on the applications. (=…………….)

4   It works in combination with other keys to produce special characters or specific actions. (=…………….)

5   It removes the character on the left of the cursor or any selected text. (=…………….)

6   It produces UPPER-CASE characters. (or the upper-case character of the key). (=…………….)

7   It produces upper-case letters, but it does not affect numbers and symbols. (=…………….)

8   It moves the cursor horizontally to the right for a fixed number of spaces (in tabulations and data fields). (=…………….)

9   They are used to move the cursor, as an alternative to the mouse. (=…………….)

| return |
| caps lock |
| shift |
| tab |
| escape |
| space bar |
| backspace |
| alt |

UNIT 2: OPERATING SYSTEMS

I. Vocabulary

A. Look at the diagram. What is the function of the operating system?

Peripherals (printer, mouse, keyboard, etc.)

computer

operating system

Applications/programs (word processors,databases,etc.)

User

B. Read the text below and complete it with the phrases in the box.

applications software	operating system	software	system software

Information provided by programs and data is known as (I)............... Programs are sets of instructions that make the computer execute operations and tasks. There are two main types of software:

- The (2) .... refers to all the programs which control the basic functions of a   computer. They include operating systems, system utilities (e.g. an anti-virus program, a back-up utility) and language translators (e.g. a compiler - the software that translates instructions into machine code).
- The (3) .... refers to all those applications -such as word processors and spreadsheets - which are used for specific purposes. Applications are usually stored on disks and loaded into the RAM memory when activated by the user.

The (4).. is the most important type of system software. It is usually supplied by the manufacturers and comprises a set of programs and files that control the hardware and software resources of a computer system. It controls all the elements that the user sees, and it communicates directly with the computer. In most configurations, the OS is automatically loaded into the RAM section when the computer is started up.

II. Exercises

Task 1: **Match the DOS commands on the left -with the explanations on the right. Some commands are abbreviations of English words.**

1 FORMAT	a) erases files and programs from your disk.
2 CD(orCHDIR)	b) copies all files from one floppy disk to another.
	c) changes your current directory.
3 DIR	d) initializes a floppy disk and prepares it for use.
	e) displays a list of the files of a disk or directory.
4 MD(orMKDIR)	f) changes names of your files.

5 DISKCOPY 6 BACKUP 7 REN (or RENAME) 8 DEL	g) creates a subdirectory. h) saves the contents of the hard disk on floppy disks for security purposes. This command checks the disk space on floppies and splits the files as necessary to use the space efficiently.

Task 2.Quiz: Answer the questions

1 What name is given to the set of programs that interface between the user, the applications programs and the computer?

2 What type of programs are designed for particular situations and specific purposes?

3 What does 'MS-DOS' stand for?

4 What is the basic DOS command for copying a file?

5 The Macintosh operating system is kept in various locations. Where exactly are these?

6 Can you give a synonym for the term 'routine'?

7 What is the abbreviation for 'International Business Machines'?

8 Which company developed Unix?

9 Which operating system designed by DEC Corp. is based on Unix?

10 What are the effects of computer viruses?

UNIT 3: INTERNET SOFTWARE

I.   Vocabulary

Task 1 :Try to answer these questions:

        1 What is the Internet?
         2 What can you do on the Internet?
         Make a list of possible applications.

Task 2. Which Internet utility (1 to 7) would you use to do each of these tasks (a to g)?

1 email	a send a message to another person via the Internet
2 Web browser	b transfer files from the Internet to your hard disk
3 Newsreader	c have a live conversation (usually typed) on the Internet
4 IRC/chat program	d connect to a remote computer by entering certain instructions and run programs on it.
5 FTP software	e take part in public discussion areas, called newsgroups
6 Videoconferencing	f fetch and view Web pages on the Internet
7 Telnet	g participate in live conversations, using text, audio, and video.

II.Exercises

 Choose the right answer. Read the text and check the answer.

1.   An Internet service provider (ISP) is
        a. a program that connects you to the Internet.
        b. a company that gives you access to the Internet.
2. HTML is
       a the software which allows you to fetch and see Web pages.
        b the codes used to create hypertext documents for the Web.
3. An IRC channel is
        a   an IRC discussion area.
        b a computer system dedicated to IRC.
4. Usenet is
       a a big system of public discussion groups.
       b a newsgroup.
5 An intranet is
        a like small version of the Internet inside a company.
         b a commercial online service.

Internet Software

Email

Email is your personal connection to the Internet. It allows you to exchange messages with people all over the world. It can include text, pictures, and even audio and animation.

When you set up an account with an ISP, you are given a unique address and anyone can send you email. The mail you receive is stored on the server of your ISP until you next connect and download it to your hard disk.

Web browsers

The Web is a hypertext-based system where you can find news, pictures, games, online shopping, virtual museums, and electronic magazines – any topic you can imagine.

You navigate through the Web using a program called a "browser", which allows you to search and print Web pages. You can also click on keywords or buttons that take you to other destinations on the net. This is possible because browsers understand hypertext markup language (HTML), a set of commands that indicate how a Web page is formatted and displayed.

IRC, audio and video chatting

IRC – Internet relay chat – is a system for real-time (usually typed) conversation. It's easy to use. To start a chat session, you run an IRC program, which connects you to an IRC server – a computer dedicated to IRC. Then, you join a channel which connects you to a single chat area. Next, you type message, and the other participants can see it.

Internet telephone and video chatting are based on IRC protocols. Videoconferencing programs enable users to talk to and see each other, and collaborate. They are used in intranets – company networks that use Internet software but make their Web site accessible only to employees and authorized users.

FTP and Telnet

With **FTP** software, you can copy programs, games, images, and sounds from the hard disk of a remote computer to your hard disk. Today, this utility is built into Web browsers.

A **Telnet** program is used to log directly into remote computer systems. This enables you to run programs kept on them and edit files directly.

Newsgroups

Newsgroups are the public discussion areas, which make up a system called "Usenet." The contents of the newsgroups are contributed by people who send articles (messages) or respond to articles. They are classified into categories: *comp* (computers), *misc* (miscellaneous), *news* (news), *rec* (recreation), *soc* (society), *sci* (science), *talk* and *alt* (alternative)

UNIT 4: ELECTRONIC COMMUNICATION

I. Vocabulary

A..*Complete the sentences by using a term from the list. Then write the words in the crossword.*

Modem   network   online   download
Newsgroups   services   account   telephone

1. When you are connected to the Internet, you are described as being………
2. To communicate via the Internet, you need a PC, modem, and a ………
3. To have access to the Internet, you must first open an …………………
4. You need a ………………. to convert computer data into a form that can be transmitted over the phone lines.
5. The public discussion areas on the Internet are called …………………
6. You can use a BBS to ……….. clip-art, games, and shareware to your PC.
7. America Online and CompuServe offer exclusive ………………. to their customers.
8. The Internet is a global ……………… of computer network.
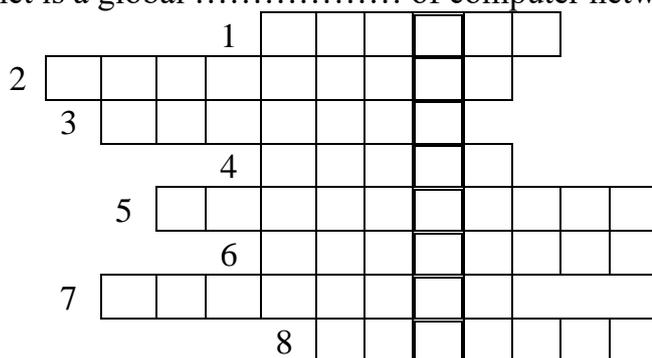
B.Match and link the pairs of expressions that have the same meaning:

1.File of structured data	7.Bulletin board system
2.Phone network	8.Modulator/demodulator
3.Telephone wire	9.IRC
4.modem	10.Internet relay chat
5.BBS	11.database
6.FTP	12.File transfer protocol

II. Exercises

Which data communication services would you use for each of these requirements?

1	fax	a	To send a personal message to a friend who is at a different workstation.
2	electronic mail (e-mail)		
3	teletext	b	To send a copy of a paper document – for instance, a scientific article – from Trento University to Cambridge University.
4	local bulletin board system (BBS)		
5	commercial online service	c	To access massive databases containing all kinds of information, or to be connected with an airline reservations service.
		d	To receive shareware and public domain programs from a user group.
		e	To find out weather forecasts and sports information from the television.

# UNIT 5: SECURITY AND PRIVACY ON THE INTERNET

I.Vocabulary

server (n)	máy chủ
firewall (n)	bức tường lửa
infiltrate (v)	lây nhiễm
hacker (n)	tin tặc, hắc khách
online transaction (n)	giao dịch trực tuyến
email privacy (n)	tính riêng tư của thư tín
encode (v)/ decode	mã hóa/ giải mã
encryption (n)/decryption (n)	mật mã/ giải mật
network security (n)	an ninh mạng
crucial data (n)	dữ liệu quan trọng
attachment (n)	(file) đính kèm
anti-virus software (n)	phần mềm chống virut

- **hacker:** a person who obtains unauthorized access to computer data
- **cookies:** small files used by Web servers to know if you have visited their site before
- **certificates:** files that identify users and Web servers on the net, like digital identification
- **encryption:** the process of encoding data so that unauthorized users can't read it
- **decryption:** the process of decoding encrypted data transmitted to you.

II.Exercises

Task 1. Complete the sentence by using a suitable term

1. Users have to enter a p……………to gain access to a network
2. You can download a lot of f………..or public domain programs from the internet.
3. Hundreds of h………………..break into computer systems every year.
4. A computer v…………can infect your files and corrupt your hard disk.
5. The process of encoding data so that unauthorized users can't read the data is known as e…………………
6. A f……………is a device which allows limited access to an internal network from the internet.
7. You can include an a…………………as part of your email massage.
8. This company uses d…………techniques to decode (or decipher) secret data
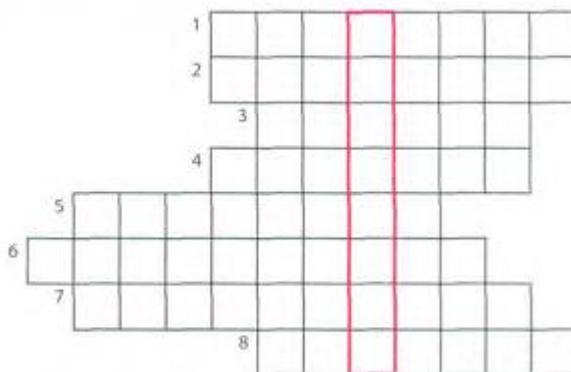
Task 2. Read the text and find answers to these questions.

1. Why is security so important on the Internet?

2. How can we protect andkeep our email private?

3. What methods are used by companies to make internal networks secure?

4. Which ways can a virus enter a computer system?

Security and privacy on the Internet

There are a lot of benefits from an open system, like the Internet, but we are also exposed to hackers who break into computer systems just for fun, as well as to steal information or propagate viruses. So how do you go about making online transactions secure?

Security on the Web

The question of security is crucial when sending confidential information such as credit card numbers. For example, consider the process of buying a book on the Web. You have to type your credit card number into an order form which passes from computer to computer on its way to the online bookstore. If one of the intermediary computers is infiltrated by hackers, your data can be copied. It is difficult to say how often this happens, but it's technically possible.

To avoid risks, you should set all security alerts to high on your Web browser, Netscape Communicator, and Internet Explorer display a lock when the Web page is secure and allow you to disable or delete "cookies".

If you use online bank services, make sure your bank uses digital certificates. A popular security standard is SET (secure electronic transactions).

Email privacy

Similarly, as your email message travels across the net, it is copied temporarily on many computers in between. This means it can be read by unscrupulous people who illegally enter computer systems.

The only way to protect a message is to put it in a sort of "envelope", that is, to encode it with some form of encryption. A system designed to send email privately is *Pretty Good Privacy,* a freeware program written by Phil Zimmerman.

Network security

Private networks connected to the Internet can be attacked by intruders who attempt to take valuable information such as Social Security numbers, bank accounts, or research and business reports.

To protect crucial data, companies hire security consultants who analyze the risks and provide security solutions. The most common methods of protection are passwords for access control, encryption and decryption systems, and firewalls.

Virus protection

Viruses can enter a PC through files from disks, the Internet, or bulletin board systems. If you want to protect your system, don't open email attachments for strangers and take care when downloading files form the Web. (Plain text email alone can't pass a virus)

Remember also to update your anti-virus software as often as possible, since new viruses are being created all the time.