Chapter III: Parts of a computer

I/ Warm-up

1/ Discuss these questions.

*Have you got a computer? 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?

2/ In pairs, label the elements of this computer system.

II/ Reading

A/ Read the text below then and use the information in the text and the diagram to help you match the terms in the box with the appropriate explanation

a software   b peripheral devices   c monitor   d floppy disk   e hardware
f input   g port   h output   i central processing unit

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. ☐

What is a computer?

Computers are electronic machines which can accept data in a certain form, process the data and give the results of the processing in a specified format as information.

5 Three basic steps are involved in the process. *First,* data is fed into the computer's memory. *Then,* when the program is run, the computer performs a set of instructions and processes the data. *Finally,* we can see the results (the
10 output) on the screen or in printed form (see the diagram on p. 8).

Information in the form of data and programs is known as **software**, and the electronic and mechanical parts that make up a computer
15 system are called **hardware**. A standard computer system consists of three main sections: the central processing unit (CPU), the main memory and the peripherals.
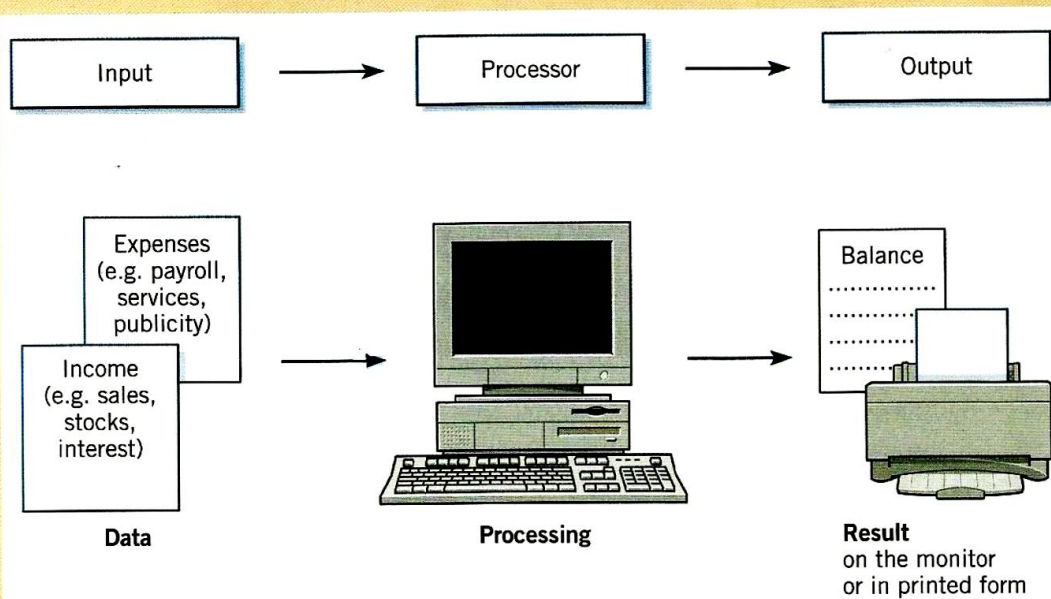
Perhaps the most influential component is the **central processing unit**. Its function is to 20 execute program instructions and coordinate the activities of all the other units. In a way, it is the 'brain' of the computer. The **main memory** holds the instructions and data which are currently being processed by the 25 CPU. The **peripherals** are the physical units attached to the computer. They include storage devices and input/output devices.

Storage devices (floppy, hard or optical disks) provide a permanent storage of both data and 30 programs. **Disk drives** are used to handle one or more floppy disks. **Input devices** enable

data to go into the computer's memory. The most common input devices are the **mouse**
35 and the **keyboard**. **Output devices** enable us to extract the finished product from the system. For example, the computer shows the output on the **monitor** or prints the results onto paper by means of a **printer**.

On the rear panel of the computer there are 40 several ports into which we can plug a wide range of peripherals – modems, fax machines, optical drives and scanners.

These are the main physical units of a computer system, generally known as the 45 **configuration**.

Input → Processor → Output

Expenses (e.g. payroll, services, publicity)

Income (e.g. sales, stocks, interest)

Data

Processing

Balance

Result
on the monitor
or in printed form

B/ Read these advertising slogans and say which computer element each pair refers to

1
a) Point and click here for power
b) Obeys every impulse as if it were an extension of your hand

2
a) Displays your ideas with perfect brilliance
b) See the difference – sharp images and a fantastic range of colours

3
a) It's quiet and fast
b) … it's easy to back up your data before it's too late

4
a) Power and speed on the inside
b) Let your computer's brain do the work

5
a) … a big impact on the production of text and graphics
b) Just what you need: a laser powerhouse

C/ Find words in the slogans with the following meanings :

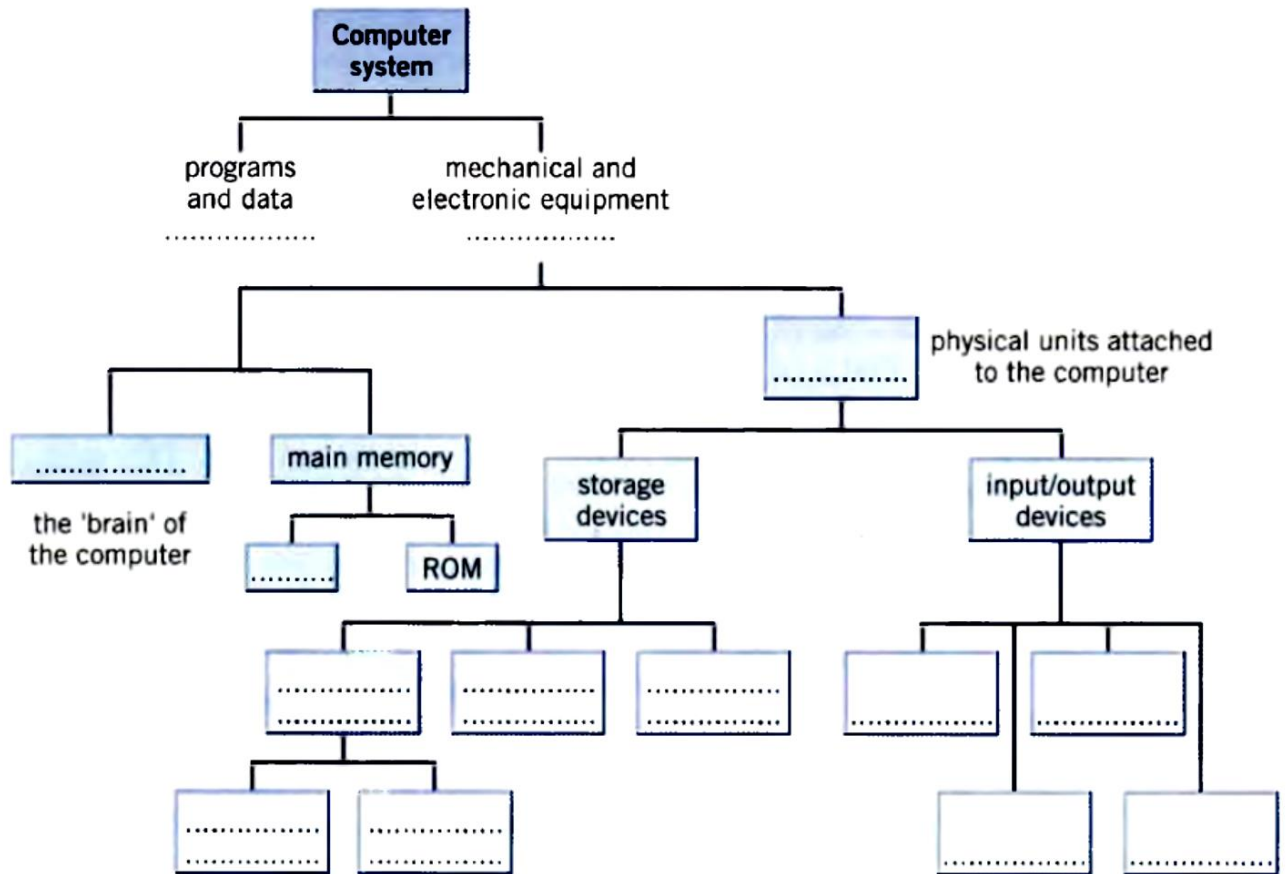1. To press the mouse button…………………

2. Clear; easy to see…………………

3. To make an extra copy of something…………………

4. Selection…………………

5. Shows…………………

D/ Match these words (1-9) with the correct meanings (a-i)

1	software	a	the brain of the computer
2	peripherals	b	physical parts that make up a computer system
3	main memory	c	programs which can be used on a particular computer system
4	hard drive (also known as hard disk)	d	the information which is presented to the computer
5	hardware	e	results produced by a computer
6	input	f	input devices attached to the CPU
7	ports	g	section that holds programs and data while they are executed or processed
8	output	h	magnetic device used to store information
9	central processing unit (CPU)	i	sockets into which an external device may be connected

III/ Listening

Listen to the following extract and label this diagram with the correct terms.

IV/ Language Work: A/ Relative clauses

Look at the HELP box and then complete the sentences below with suitable relative pronouns. Give alternative options if possible.

HELP box
Relative clauses

We can define people or things with a restrictive (defining) clause.

- *The teacher **who** is responsible for the computer centre has just arrived.*
  We use the relative pronoun 'who' because it refers to a person. We could also use 'that'.

- *The microprocessor is a chip **which** processes the information provided by the software.*
  We use the relative pronoun 'which' because it refers to a thing, not a person. We could also use 'that'.

- *The computer we saw at the exhibition runs at 2.5 GHz.*
  Relative pronouns can be left out when they are not the subject of the relative clause.

1 That's the CPU................I'd like to buy.

2 A co-processor is an extra processor chip ....does calculations at high speed.

3 The microprocessor coordinates the activities................take place in the computer system.

4 Last night I met someone .... works for GM as a computer programmer.

5 A palmtop is a computer ………………is small enough to be held in the palm of one hand.

6 A megahertz is a unit of frequency................is used to measure processor speed.

7 Here's the DVD …………………you lent me!

B/ classifying

Look at the HELP box and then use suitable classifying expressions to complete these sentences.

HELP box

Classifying

Classifying means putting things into groups or classes. We can classify types of computers, parts of a PC, etc. Some typical expressions for classifying are:

- … **are classified into X types/categories**
- … **are classified by …**
- … **can be divided into X types/categories**

Digital computers can be **divided into** five main **types**: mainframes, desktop PCs, laptops, tablet PCs and handheld PDAs.

- … **include(s) …**
- … **consist(s) of …**

The basic configuration of a mainframe **consists of** a central system which processes immense amounts of data very quickly.

- **There are X types/classes of …**
- **X is a type of …**

A tablet PC is **a type of** notebook computer.

1 A computer……………………………… hardware and software.
2 Peripherals …………………………………three types: input, output, and storage devices.
3 A word processing program……………………………software which lets the user create and edit text.
4 …………………………………of network architecture:·. pee~-to-peer, where all computers have the same capabilities, and client-server (e.g. the Internet), where servers store and distribute data, and clients access this data.

V/ Speaking

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

Explain them to your classmates.

VI/ Writing

Explain in a paragraph how to write a paragraph. Specify the form and the structure. Don't forget to mention the steps to follow before writing it.

Form: 1/…………………………
        2/………………………
Steps to follow:
1/…………………………………
2/………………………………….
3/………………………………….
4/………………………………….

Try to guess the meaning of these acronyms
IOB…………………………………….
UOBC………………………………