

Chapter specifications

Subject: computer notes for Afghani school students

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باب المقدس
خصوصي بنو ولائی

Computer notes for students

In the name of Allah who is the king of king.

❖ What is a computer?

Nowadays we can find computers everywhere near us. In markets, hospitals, in schools, in homes and everywhere. People are using computer for different purposes

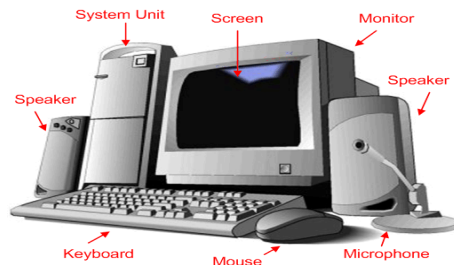
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Computer is an electronic machine, which can be programmed to accept data (input) in to meaningful information (output), and store output in storage device for later use. It also called computer.

Or a computer is an electronic machine that can store and process information.

Or an electronic device the store and process data and can be programmed.

Or a computer is an electronic machine that works with data.



❖ History of computer:

The computer as we know it today had its beginning with a 19th century English math professor name Charles Babbage. He designed the analytical engine that was first computer. And Charles Babbage is the father of computer.

❖ What is a machine?

A machine is a useful man made tool that helps us in our daily life and saves our time and energy.

❖ Types of computer:

1: Super computer:

A super computer is the faster, most powerful and most expensive computer which is use for complex tasks that require a lot of computational power. Super computer have multiple processor which process multiple instruction at the same time.



2: Mainframe computers:

Main frame computer are very large computer which process data at very high speeds of order of several million instruction per second. They can linked in to a network with smaller computers. They are typically used in large organization, movement departments etc.



3: Mini computers:

Mini computers are more powerful than microcomputers. They have higher memory capacity and more storage with higher speeds. These computers are mainly used in process control systems.



4: Personal computer:

This kind of computer is designed for a personal use so it is called personal computer. It is also known as pc (personal computer).



❖ Types of personal computer:

A: Desktop computer:

The desktop computer is the most common type of personal computer. We can put desktop computer at the top of the desk.

Desktop computers are used in homes and business, for example, shops, hospitals and office.



B: Laptop computer:

Laptop computers are also a kind of personal computers. It is small in size and like a note book. Laptop computer can also be used to personal information in office meet mgs.

This kind of computer is useful for businessmen and office.



C: Palmtop computers:

Palmtop computers are so small that one can put it in pocket. These kind of computers are not much effective than desktop or laptop computers. This kind of computer is useful only salesmen and for the people who want to keep some daily reminders.



Palmtop computer

❖ Hardware and software:

Hardware and software are two basic parts of a computer system. A computer works due to these parts.



❖ CPU:

CPU stand for central processing unit. It is the place where data is to be processed. Actually, it is the brain of the computer. Another popular name CPU is microprocessor. it is transforms input (data) in to output (information) it can also store information even for a long period.



CPU

❖ Input devices:

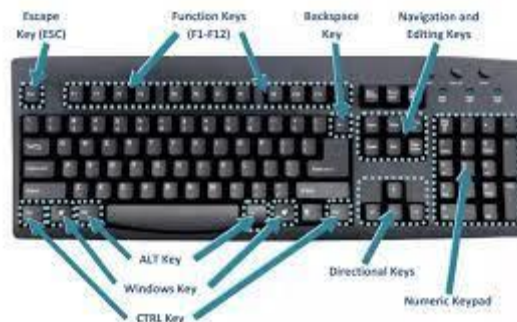
The computer parts through which we enter data in to the computer are called input devices, these are as under:

A: Key board:

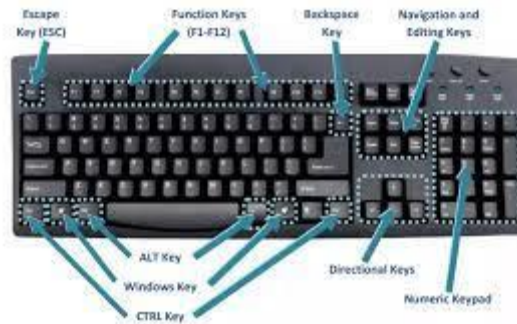
The most common input devices which we enter the data in to the computer through keyboard. Keyboard is same as a typewriter but it has some additional keys. Buttons on the keyboard is called keys. These keys are divided into four different groups.



1. **Function keys:** there 12 keys on the top of a keyboard. There are marked f1, f2.....f12.the letter ' f ' indicates that these keys are function keys. All these keys have pre-defined meanings which depend on the application software. Function keys are used to give different commands to the computer, each depends on the job we doing.



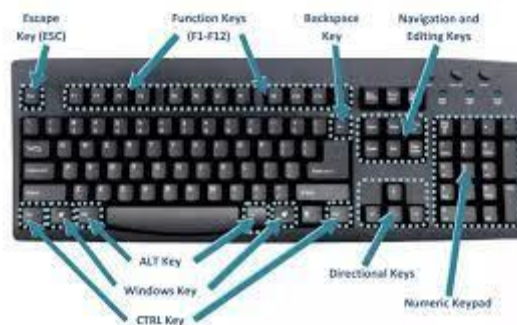
2. **Alphabet keys:** these keys are used to write different names and sentences. This part of the keyboard has 26 keys and English alphabets marked on them capital letters.



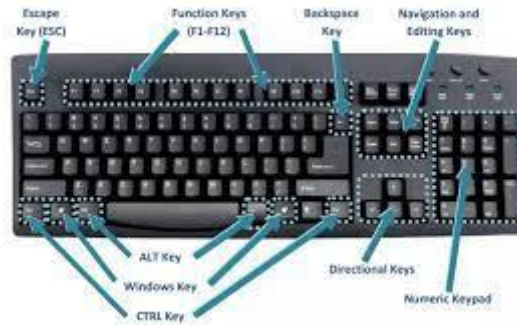
3. **Numbers keys:** these keys are used to type's numbers like (0-9). Etc. along with these digits. These are some symbols on the each digit. This part of the keyboard has 14keys.



4. **Special keys:** this part of the keyboard has 11spcecial keys. Enter, shift, caps lock, tab, ctrl, alt, esc and special keys.



Symbol keys: there 21keys on the typewriter area of keyboard. Some keys are separate and some are combined with number keys.



Cursor control keys: cursor movement keys are used to move the cursor (blinking indicator) in different directions that is up, down, left and right side around the screen. Insert, home, delete, end, page up and page down keys are the part of their keys.



1. **Page up keys:** in most edit programs, this key will move the cursor upward several lines at a time.



2. **Page down keys:** in most edit programs, this key will move the cursor downward several lines at a time



3. **Home key:** in many programs, home key moves the cursor to the top of the document while other program move the cursor to the start of the current line.



4. **End key:** in many program, the end key moves the cursor to the end of the screen or end of the document,



5. **Insert key:** squeezes in letter that where left out. Press it once to run insert on, type the missing letter (s) then press it again to turnoff.



6. **Delete key:** this key eraser the letters at the cursor and close up everything after it.



B: Mouse:

The mouse is also an input device. It is connected by a wire to the system unit. We use a mouse for selecting a particular object on the monitors screen,



Mouse

C: Joystick:

is also another input device. In many computer games, the player has to give quick response. It is a hand –held device that allows the user to move object on the screen.



Joystick

Light pen: is a pen shaped device. This is used to educate the student or for designing purposes. It is connected by a wire to the CPU and the other end of light on the screen.



Light pen

Scanner: it is also an important and useful input device. It scans the printed page, picture of other documents and stores in to computer memory.



Digital camera: is also an input device. It records images by breaking down the image in to a series of line. It takes continuous picture and generates and signal for display or recording.



Output devices:

The computer parts through which we get the computer are called output devices. The following are some output devices:

Monitor: the monitor is an output device which looks like TV. When a computer produces information

Or the monitor is an output device that display information to the user. The most compact thin-screen monitors are the LCD or liquid crystal display screens which can be mounted on a wall or no a shelf.



Printer: printer is also an output. We can print whatever we see on our screen, but a printer prints output on the papers. Printers are of many types. Some of them are as follow:

1. Dot matrix printer:

Dot –matrix printers are very slow and noisy and also print only back, so they do not produce good looking printouts. A ribbon of ink rotates between the paper and the printer head in dot matrix printers. Upper parts of printer head contains pins ranging from 7to24. Due to this method, printing is done by small dots.



2. Inkjet printer:

There printers are faster and quiet and also can print colored image and text, so they print better looking printouts.



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3. Laser printer:

Laser printers are the faster types of printers. Laser printer use a laser beam to create an image which is transferred on a paper. It gives best quality printout at a faster speed.



Speaker: a speaker is a commonly used output device that transmit audio messages from the computer. Some computers, especially laptops, have built –in speakers.



Memory:

Memory is a device where data and programs are stored. Another word for memory is storage device. Computer has two kinds of memory:



1: Internal memory: internal memory is divided in to two types, such as ram and rom.



Ram: as we have memory to memorize the things, computer also has a memory which is called ram “ram” stands for random access memory. It is also placed on mother board. Computer places the



given information in this memory.

Rom:

Rom stand for read only memory. We can just read the information present in it, and cannot change it. It has a permanent native. As we cannot change the previous information stored in rom, so at the time of Manu faction information saved.



2: external memory: are used to store the massive amount of information. There are a number of storage device in the system unit. It is also called secondary storage devices. Types of this memory is the hard disk pic floppy drive pic cd room pic



The system unit: is a box- shaped part of computer. It has many other components. Its function is to get output from input. It consists of important components like CPU, memory, main board etc.



1. Main board: the main part of a system unit. All the electronic components of a computer inside the system unit are mounted on a piece of fiber glass called the main board.



2. Memory: Memory is a device where data and programs are stored. Another word for memory is storage device. Computer has two kinds of memory: ram, rot m.



How does a computer work?

The function of a computer is to receive data (input), process it, and give us the information (output). There are three basic steps involved in processing.



1. **Input device:** data is a raw information which we enter into the computer for processing.
2. **Processing:** when we are working. Actually we are doing some processing. Processing means treating the data according to the instruction and changing it into useful information as required.
3. **Output:** is the useful information which is produced by the system unit, after processing on input. It can be a picture, sound, document, report etc.

Microsoft windows

Microsoft windows: is a popular operating system all over the world for a personal computer. It is a rectangular area on a monitor on which programs and data are displayed.



1. **Desktop:** windows creates a working environment for our computer. As in an office we work on a computer operations tasks place on the desktop.



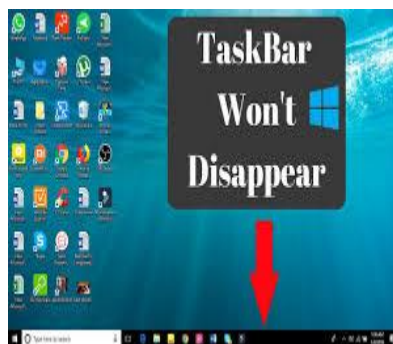
2. **Icon:** icon is sign of a particular program, we many open any program by clicking on its icon with help printer.



3. **Start button:** to start a program, we many click the start button on the task bar, open a document, get help, find item on our computer and more.



4. **Taskbar:** shows the names of program that we use currently.



5. **Mouse pointer:** in windows an arrow type symbol moves on screen called pointer. It is the source to give commands to the computer and open a particular program.



6. **Wallpaper:** is only a picture. A lot of wallpapers (pictures) are there, which can be changed at any time. The wall paper has no effect on the operating system or any other program. Pic



7. Working with windows

Clicking the start button, we see a menu that contains everything we need to begin using windows.

1. **Shut down:** choosing this option it brings the following screen. This screen enables you to stand by, shutdown , restart, restart in MS –dos mode and log off and log in.pic



2. **Run;** it allow you to run a program directly, if you know the path and file name.



3. **Help:** to guide you through a problem, it contains an online tutorial.
4. **Find:** it is used to find a file or a folder.
5. **Setting:** it contains various parts for the different setting of your computer.
6. **Programs:** you just click the program if you want , as the picture.

Where we can find computer?

Nowadays we can find computer everywhere near us. In markets, in hospitals, in schools, in home and everywhere. People are using computer for different purposes.

Education:

Computers are used in schools, colleges and university to teach us computer science and other subject. Internet is a great education system throughout the world.



Business:

Computer are used in office and factories to keep the record of employees, expense and income.



Practices typing:

Many computer users develop back problems due to bad posture. Remember the following things when you sit down to types:

1. Sit straight in a comfortable chair.do not use a laptop on your bed.
2. The table must be at the correct height.
3. The keyboard should be below or at the same level with your elbows.
4. The computer should be entered in front of you.
5. Your eyes should be above the top of the monitor so you do not strain your nick.

Notes:

Computer a machine that computers or calculators.

Data any words, numbers, or pictures fed into the computer.

Hard copy: a paper with printed work on it which we can touch.

Input: data entered in a computer.

Menu: a list of programs that you can choose from.

Memory: a computers storage area where data and programs are stored.

Internet: a global network connecting millions of computers.