

**Kurdistan Regional Government-Iraq  
Ministry of Education  
General Directorate of Curriculum and Printing**

# **Information Technology**

**Information Technology and Microsoft Windows**

**Basic Education**

**Grade 7**

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# Introduction

Today's era is the era of technology while considering the enormous influences that technology imposes on our lives as individuals and as communities. Technology has immersed itself in all aspects of human life, take for example: (Education, Health, Military Affairs, Scientific Research, Traffics, etc.).

Furthermore, with this rapid ongoing progress in the field of Computer, transforming the Computer curriculum implemented in schools by Ministry of Education in Kurdistan Regional Government is considered to be an urgent responsibility. Our beloved students should not be behind these up to date advances in this indispensable and widespread science, but indeed should be aware of as well as privileged with them. Therefore, we prepared this book.

## **Dear honored and beloved teacher:**

You are the solid ground for the success of learning process. This sacred trust is embodied in you with your enduring efforts in nurturing the intellectual as well as emotional awareness of our children that will, for sure, result in escalation in quality of learning and teaching.

We trust you with this book. We thank you. We hope that you will have a significant role in the achievement of this curriculum's goals.

## **Dear beloved student:**

You are the hope for the tomorrow of your nation, you are the light to brighten the horizon of your homeland. You are well-worth of all the devotion given to you by the Ministry of Education in the Kurdistan Regional Government .You are the focus of education; the center of the whole process of teaching and learning. The renovation in education program is for your advantages.

**Committee**



# **Part One**

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## **Information Technology**



# 1st Lesson

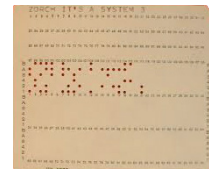
## Computer Definition

Lesson Aim

- 1 - A brief summary about computer history.
- 2 - Computer understanding
- 3 - The difference between Data and Information



Punch card machine



Punched Card



Vacuum Tube

### A brief summary about computer history:

In respond to human request for calculating and math, man though in inventing a machine, at the end of the path the English mathematician **Alan Mathison Turing** invented a machine in 1936 named **Turing** as a specimen theory for calculating, and in 1944 in United States of America, **Haward Aiken** who was a philosopher in physics invented electro-mechanical computing device called **MARK** which was (Width 61 cm , Length 16 m , Height 2.4 m), **vacuum tubes** and punched cards were used in process See above figures.

The year 1946 was the emersion of **Electronic Numerical Integrator And Computer – ENIAC** by **J. Presper Eckert and John Mauchly**.

Later on, various improved devises were built. This computer revolution had passed through four evolution stages, currently keeps pace with the fifth stage which almost started in eighties of 20th century. The main enormous target of this revolution is computer improvement to achieve executive speed and maximizing capability and reducing building costs to the lowest point.

The first person who used **COMPUTER** term in 1956 was a French university teacher at **Sorbonne** called **M. Perret**.

### Computer understanding :

A computer is a pre-programmed device, works to remediate and analyze data and converting them to useful info.

In other words, a computer does not create the information, but calculates and arranges them, changes some input info to achieve accurate outcome information. See **Figure 1**



Figure 1

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## Information about data and inputs and their variances,

### Data:

Data consists of letters, quantities, characters, symbols, sound, various images and video clips.

**Example:** Student's name, Examination number, Date of Birth, Student's photo, Password, ...etc. See Figure 2

### Information

Information is the resulted data as processed in the computer and transmitted by a device, such as "Passed" or "Failed", "Total Marks" or "Average Mark" ...etc.

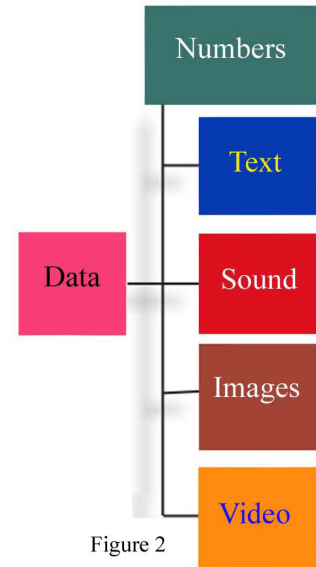
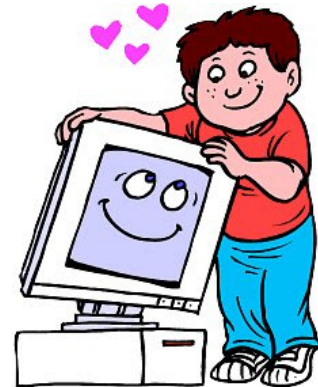


Figure 2

### Computer Specifications

- 1- Speed in running and executing programs.
- 2- The ability in saving /restoring data and information.
- 3- High precision capability in data processing and implementing.
- 4- Works for a long period of time.
- 5- Can be connected with other devices and equipment.
- 6- Not very expensive and can save time, efforts and resources.
- 7- Has various usage



### Activity//

Q.1. what is computer?

Q.2. In conducting human works, why computers are considered as human alternative?

## 2nd Lesson

# Computer Importance

Lesson Aim

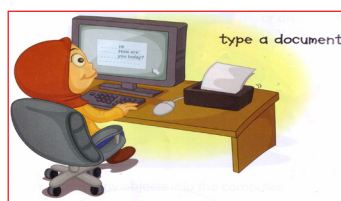
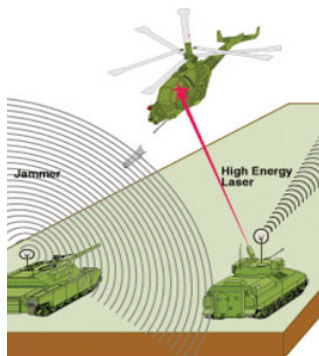
After this lesson, students should know the following:-

Knowing the fields that computers are used and discuss them with examples

### Fields that computers are used:-

Due to its capability and specifications, computer can be used almost in whole aspects of life. The individuals and parties that use it are:-

- 1- Education
- 2- Science and Research
- 3- Astronomy
- 4- Health
- 5- Military
- 6- Internet
- 7- Communication
- 8- Transportation (Land, Naval and Air Transportations)
- 9- Office and Administration
- 10- Trading
- 11- Entertainment



### Activity //

Q.1 . Name five (5) fields that use computer, with examples.

Q.2. Let the students discuss the use of computer as they have physically seen directly or through TV. .



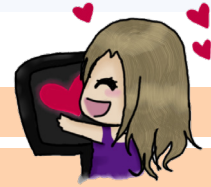
# 3rd Lesson

## Types and Parts of Computer

Lesson Aim

After this lesson, students should know the followings:-

- 1- Naming computer types with examples
- 2- Naming computer parts and programs



I ♥ MY PC

### Computer Classification

Computers can be classified according to their usages, or according to their processors or the year of production,.... etc.

#### 1- Super Computer

Super computers are very big in size, they can save enormous amount of exclusive data that are used by states and governments through internet. See below figures



#### 2- Mainframe

Mainframes are powerful units but less power than Super Computers. They are used by big companies and administrative to run city issues, astronomy is one of the fields that mainframe is used in. See below figures.



#### 3- Minicomputer

This type of computer is used by small companies. See below figure.



## 4- Microcomputers

A microcomputer is a complete computer on a small scale, designed for use by one person at a time, and has on CPU (Central Processing Unit). It is used widely due to its low cost and size and they can be used easily. Some are called Desktop because they are set on desks, others called Laptop because they are mobile, as there are other types of them. See below figures.



### Basic Parts of Computer

The basic parts of desktop computer are...

- 1- Software
- 2- Hardware

### One/ Software

Software is an initial important part of computer, without them a computer has no value. There are many types of software (see figure 3)

**System Software** / It is a set of programs that are used to perform a specific task, consists of four programs:-

- **Operating System**

It is important system software that manages computer hardware, software resources, and provides common services for computer programs; Microsoft Windows is the most known Operating System Software.

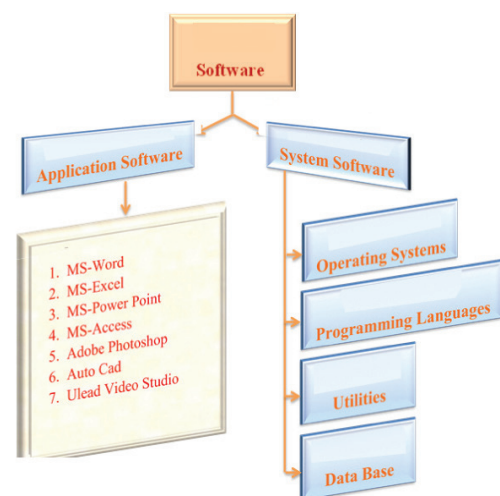


Figure 3

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- **Programming Languages**

A programming language is any set of rules that converts strings, or graphical program elements in the case of visual programming languages, to various kinds of machine code output. C, C++ and Java are some of the popular ones, as there are others.

- **Utilities**

Utilities are these programs that handle the issues take care in a computer or in the programs during operation, such as Antivirus.

- **Database Program**

Database Program consists of programs used to manage data and information structured, it has similar aspects as Programming Languages, Oracle is the most known one.

**Activity //**

Q.1. What does Utilities mean?

Q.2. Define System Programs and list them down.



# 4th Lesson

## Computer Parts

Lesson Aim

After this lesson, students should know the followings:-

- 1- Counting and recognizing computer components.
- 2- Recognizing computer memory and counting units.

### Two / Hardware

Hardware is the physical components of a computer performing one or more tasks. Hardware consists of four units. See Figure 4.

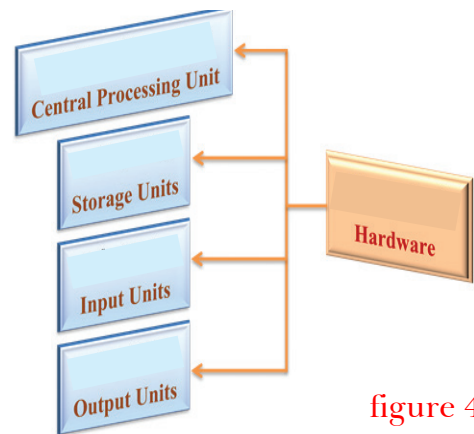
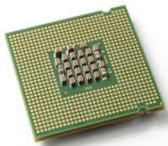


figure 4

### 1- Central Processing Unit /CPU



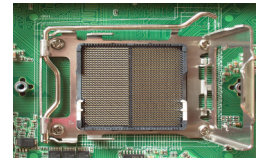
CPU is the most important unit in the computer. It is located in the motherboard. It is similar to human brain, performs all arithmetic controlling and the activity of all other component of the computer. Its speed is measured by GHs, this unit is also sub-divided into two other units.

- Arithmetic and Logic Unit -ALU

This unit is performing math and arithmetic functions ( + , - , x , etc.), also ( = , > , < , 7, 8 etc.)

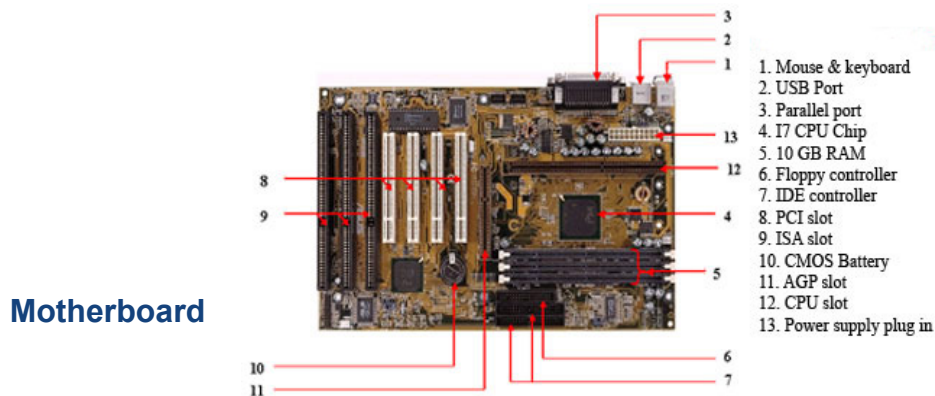
- Control Unit

This unit is in charge of controlling all other parts of the computer and transmitting data between the units.



### Motherboard

It is an electronic board, contains most of the important units and holds and allows communication between many of the crucial electronic components of a system.



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## Main Memory

It is also called Internal Memory, located on the Motherboard. They are two sorts:-

### (1) Read Only Memory –ROM

It is located on the main board. It is a non-volatile memory that is used to store important information which is used to operate the system. As its name refers to read-only memory, we can only read the programs and data stored on it. When the computer is shutted down no change happens to ROM.

### (2) Random Access Memory-RAM

Random-access memory allows saving data and programs that the user can open and access them temporarily, keeps active until power is down.



It also organizes the relation between CPU and hard disk –HD, its storage is measured by Gigabyte –GB, access to data in this memory is random.

## Memory Measurement Units

Memory units are used to measure and represent data. Some of the commonly used memory units are Bit, each eight Bit is equal to one Byte (8 bit = 1 byte). Below are other bigger measurements for Memory Units:-

- 1 **Kilobyte** = 1024 bit
- 1 **megabyte** = 1024 kilobyte
- 1 **gigabyte** = 1025 megabyte
- 1 **terabyte** = 1024 megabyte

## Activity//

**Q.1.** What does CPU consist of and how important is it?

**Q.2.** (1) **CPU** is the abbreviation of .....

(2) **RAM** is the abbreviatiom of .....

(3) If the measurement of a RAM is 8 gigabyte, how much is it in kilobyte?

# 5th Lesson

## Storage Units

Lesson Aim

After this lesson, students should know the followings:-

- 1- Counting and recognizing storage units.
- 2- The importance of storage units.



### 2- Storage units

They are also called “Auxiliary Memory Units”. Storage units are important factors for keeping data and programs, historically witnessed many changes like minimizing their sizes and increasing their storing capacity and flexibility in access.

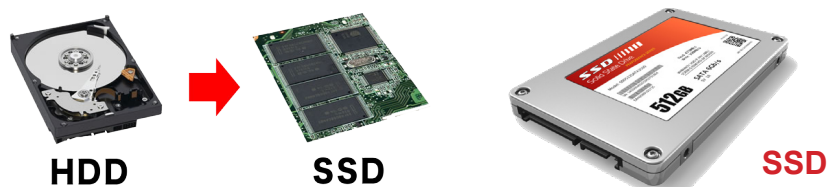
- **Hard Disk Drive –HDD**

Hard Disk Drive is the main storage for all data and personal information for the user and the software programs such as operating system, office etc. **HDDs** have two types **SATA** and **PAT/IDE**, the data cable of these two types are different. The latter is more popular in use because it is faster than the first one. See below figures.



- **Solid State Drive – SSD**

It has the same function as **HDD** but they are different in the way they are manufactured technologically and their specifications. See below figures.



- **External Hard Disk Drive – EHDD**

An external hard drive is a portable storage device that can be attached to a computer through a **USB**. It is used to save data and personal documents. External hard drives have different storage capacities, for example see the opposite figure which is one terabyte.



## Optical Discs

An optical disk is a flat, usually circular plastic disc measures (12 cm) and its thickness is 1.2mm, used for data saving, some called **Compact Discs –CD** , has the capacity of saving **700 MB/80 Min**( 700 MB for data and documents) and ( **80 minutes for Audio & Video clips**). Another type called DVD –Digital Video Disc or Digital Versatile Disc, in general can store **4.7 GB/120 Min** and **9.4 GB/240 Min**.



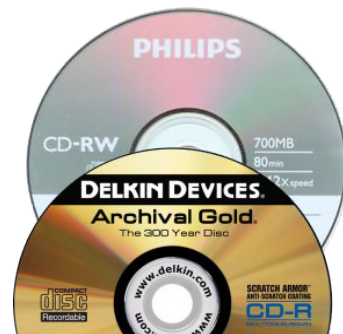
These discs have particular drivers that can be written to and read from using a low-powered laser beam such as **DVD Multi Drive**, **Super Combo Drive** and **Super Multi DVD Drive** which is the **best one**.



CD , DVD , BD

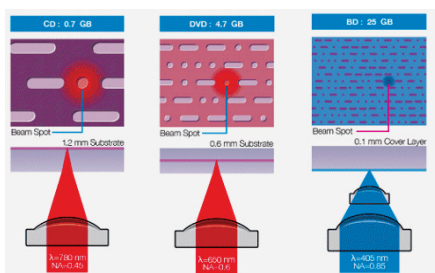


DVD



CD

**Another** type of this disc is Blu-ray Disc –BD with 25-200 GB. This can be increased according to its sort. The name Blu-ray is taken from blue laser which is used for writing and reading the documents on the disc. In some other discs the red laser is used. See below figure.



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- **Memory Drive**

Memory drives have different types such as

- **Flash Memory**

Flash memory is also called **Pen Drive**. This type of memory is very common and due to its small size and inexpensive cost it is simple to use, and has various shapes and forms.



- **Memory Card**



This type is used in cell phone and can be recognized according to its capacity. It can be connected to computer either directly or by using auxiliaries such as **SD Adapter** or **Card Reader**.

### **Activity//**

Q. There are several types of Storage Units, why? Explain it.







**I preserve my school computers.**

# 6th Lesson

## Input Units /Keyboard

Lesson Aim

After this lesson, students should know the following:-

Be familiar in recognizing the keyboard buttons and their positions.

### 3- Input Units

Input Units are equipment when we use them we can transmit data to computer, such as :

#### Keyboard

A keyboard is one of the primary input devices used with a computer. A keyboard is composed of buttons used to create letters, numbers, and symbols, as well as to transmit data into computers.

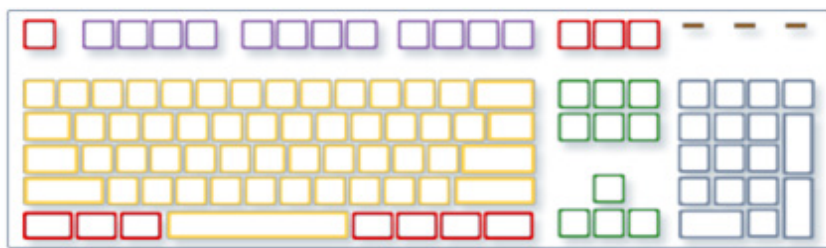


#### How to organize the buttons

Keyboard buttons are divided into groups according to their functions as follow:-

- **Typing Buttons**; includes letters, numbers and symbols.
- **Controlling Buttons**; they can be used alone or with another button for specific functions, like Alt, Ctrl, Esc, Windows.
- **Function Keys**; include buttons (F1, F2, F3 to F12). Each button has specific function, and differs from a program to another one.
- **Navigation Keys**; used to move the pointer (cursor) around on the screen. They include Insert Delete, Page Up, Page Down, End, Home.
- **Numeric Keyboard**; includes the buttons used for mathematic purpose, locates on the far right side of a computer keyboard.

The figure below shows the keyboard buttons.



- Navigation Keys
- Controlling Buttons
- Numeric Keyboard
- Function Keys
- pointers light
- Typing Buttons

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## Text Writing

In any program when we start to write a text, there should be this symbol (I) which indicates the start point of the writing. While you type there are other buttons having number, cursors and symbols on such as the below list which we need to use them during typing:-

- **Enter** ( ↵ ) : It is used to shift the start point cursor to another new line.
- **Backspace** ( ← ) : It is used to delete/erase the letters locating in front of the start point cursor.
- **Delete** : It is used to delete letters locating after the start point cursor.
- **Spacebar**: It is used to move one tap ahead (leaving space between the words).
- **Tab** : It is used to move 8 taps forward.

**Note//** (  ) clicker is used to open specific active lists, in other words it functions just like the right click on the mouse.

### Activity//

Q. Choose the right answer:

- 1- ..... is a move button. ( **Esc**, **F1**, **End**, **Alt** )
- 2- The **Windows button** is one of the ..... clickers.  
( **Typing**, **Controlling**, **Function Keys**, **Moving** )



# 7th Lesson

## Input Units /Mouse

Lesson Aim

After this lesson, students should know the followings:-

- 1- Mouse Parts
- 2- Recognizing external sub-devices.



### Mouse:

Mouse is one of the main external sub-devices. It is a pointing input device of computer, helps to control cursor that is visible on the computer screen while moving the mouse on flat surface place.

### The main parts of mouse

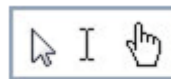
Mouse consists of two clickers, the main one is the left clicker and the right clicker is a sub clicker. Generally the left one is used. There is a scroll between these two clicker used to move upward and downward to view the whole document on the screen. See the figure below.



### Mouse grasping and mouse moving



Put the mouse next to the keyboard on a clean soft surface (Mouse Pad). Put your hand on the mouse as shown in the below figure. Move the mouse to any direction the cursor moves to the same direction.



### Mouse Usages

In general the mouse has five usages, as follow:-

- **Click** / It is one click-release function on the left button of the mouse for indicating an icon or opening a list.
- **Double Click**/ It is two click-release function on the left button of the mouse for opening a program or a file.
- **Right click**: it is one click-release function on the right of the mouse , its used to open a specific menu related to the item that has been clicked on .
- **Drag & Drop** / It is the process of moving icon and file from a place to another, and this will occur when you press on the left clicker of the mouse and dragging it to the designated location.



- 
- **Scroll/** It is the process of scrolling the mouse wheel locating between the two clickers for moving page upward and downward for viewing the content of the page.

## External Sub-devices



- **Scanner/** It is a device used to scan a photo or any other document and save it in the computer.



- **Microphone/**



It is a device used to transmit audio clips and sounds to a computer.

- **Camera/**



It is a device used to take photos and videos and sending them to a computer.

- **Light Pen/**



A light pen is a computer input device in the form of a light-sensitive wand used for writing and drawing diagrams on a specific screen, or computer screen to transmit data to a computer.

## Activity//

Q.1. Does mouse grapping have any effect of the function we perform? **Explain.**

Q.2. Can we use a Desktop mouse for a Laptop? How? **Explain.**

Q.3. Indicate if the following are True or False.

1- A **mouse** is an External Sub-devices.

2-The **main clicker** in the mouse is the right clicker.

3. **Mouse** doesn't work without pad mouse.

4-**Scroll** is used for moving pages upward and downward.

5-A **scanner** is used for moving photo to a computer.

# 8th Lesson

## Output Units



Lesson Aim

After this lesson, students should know the following:-

- 1- Recognizing and counting the output units.

**Output unit** is the part of a computer that presents the processed data in a form that management can use, such as:-

- **Monitor** /As shown in the figure, monitor is an important component of computer used to observe and check the programs.



- **Speakers/Headphones:**



They are audio broadcasting devices used, through specific programs, to broadcast sounds come out from a computer as shown in the below figures.

- **Printer**/ As shown in the figure, printer is device used for printing papers.



- **Plotter**/ It is a printing machine as shown in the below figures, used for producing vector graphics drawings, engineering designs, advertising ,city and huge factory maps.



### Activity//

**Q.1.** Is it necessary that each computer should be equipped with all output units? Why?

**Q.2.** Fill in the black spaces.

- 1: ..... is a device used for printing enormous sizes.
- 2: ..... an important component to view all our project results.
- 3:..... is used for printing papers.

# 9th Lesson

## Important Computer Factors

Lesson Aim




After this lesson, students should know the followings:-

- 1) Recognizing factors that have impact on computer function.
- 2) Purchasing computer that has the best quality.



### Factors that have impact on computer function

If you desire to purchase a computer, you should keep the following in to consideration:-

- **CPU.**   
CPU has the most important impact on computer function because CPU speed means computer speed which is the oscillation/per second, in other words it is the amount of the oscillations processed in one single second. CPU speed is counted by Hz, for example, if the CPU is 2GHz, which means it processes two billion actions in a second.
- **RAM.** When you open any program, the program is inserted to primary memory device by operating system.   
If there is enough room in primary memory device, and if its capacity is big enough, the computer speed will be faster, on the contrary, the operating system specifies a portion of the hard disc for processing the programs. This is called Swap File which causes losing time and reduces computer speed.
- **Size and Speed of Hard Disc.**   
Quick respond to programs and information, also quick saving process are aspects for the computer function improvement, when the main memory device is small enough comparing to the run program, operating system will specify a portion of Hard Disk for the program (Swap File). Thus, the faster respond by the Hard Disc to the CPU the better function the computer will perform.
- **Operating System**  
Although the operating system is not a physical part of computer but has great impact on computer function because it engages in running all physical parts of computer; therefore, the less errors seen in a computer the more function is gained.

### Activity//

Q. What are the factors that impact on the function of a computer? Count them.

# 10th Lesson

## Computer & Health

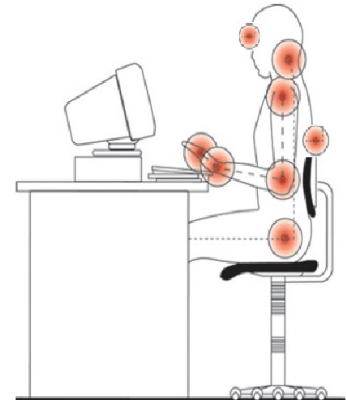
Lesson Aim

After this lesson, students should know the followings:-

- 1) Good posture while sitting in front of computer
- 2) Preventing health problems while using computer

### Proper way of using computer

Medical researches and reports warn from the unhealthy posture/sit in front of computer screen for a long period, the longer the unhealthy sitting period is, the more pain in the muscles, fingers, wrist, neck and shoulders is noticed, besides eye problems, all because of unhealthy sitting in front of the computer screen and improper use of the mouse and keyboard because there is harmful radiation coming out of the computer screen that has great influence on eyes and skin, ...etc.



The figure above shows the common affected areas in human body while sitting in front of a computer.

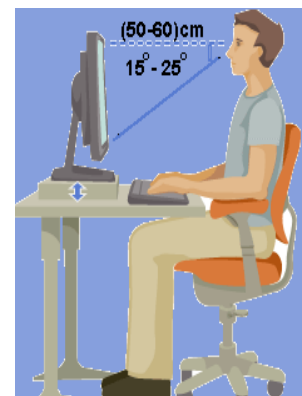
**To prevent yourself from these problems while using a computer, follow the given instructions:-**

- 1) Proper posture and using a chair that has the specifications shown in the figure and listed below while sitting in front of a computer:-



- A- Use swivel chair with a set of wheels for mobility because this type of chair will reduce the pressure on neck and backbone.
- B- Use a height-adjustable (up and down) chair so as to regulate it according to the desk you use.
- C- Use a chair that has backrest, headrest and armrest to ensure a comfortable posture while sitting on.

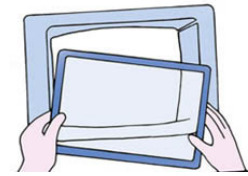
- 2) The distance between the monitor and the user should not be less than (50-60cm) and the low eye level should be between (15-25 degree) to prevent eyes from exhaustion and eye burnings. See the figure on right.



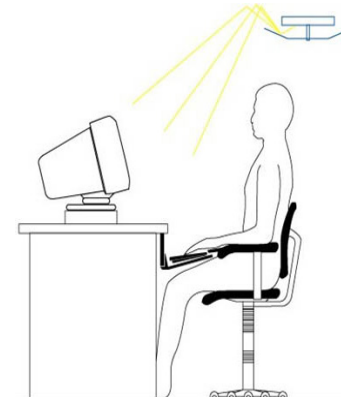
- 3) A proper height of the monitor. The monitor must be set in a position equal to eye level to prevent neck bending which reduces the impact on the muscles. See the figure.



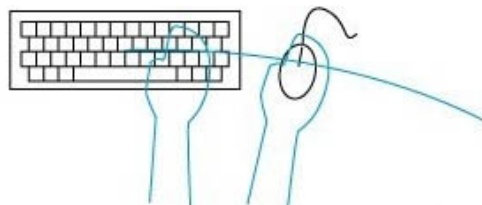
4) Adjust monitor brightness in a comfortable way so as not to harm your eyes.



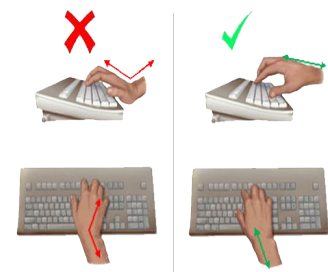
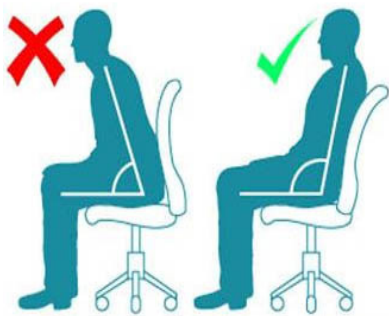
5) The computer should be placed in a proper location, in a way nor the monitor neither user's eyes be exposed to direct lights, as shown in the figure.



6) The mouse and the keyboard should be on the same horizon level so as to have cushy access in moving the hands as shown in the figure.



For more explanation see the figures below, which show healthy and unhealthy sitting posture in front of a computer



### Activity//

- Q.1. Sometimes the computer user faces some health problems, why?  
Q.2. Discuss three healthy ways of sitting in front of a computer.

# 11th Lesson

## Computer Virus

Lesson Aim

After this lesson, students should know the followings:-

- 1) Recognizing computer viruses and why they exist.
- 2) Some virus types and their specifications.
- 3) Ways to protect your computer from viruses and how to keep it virus free?

### Computer Virus

A computer virus is a malicious program that self-replicates by copying itself to another program that transmits to computer by Flash Memory, Memory Card, CD/DVD/BD or through using the web.



In this it attacks the targeted file to distort or obstruct it, or the file will become a virus holder/host to target other files. Some of the common viruses are (Bubble Boy Virus, Cih Virus, Love Virus, Melissa Virus, Pakistani, Pantagon, Sasser, Blaster, Brain, Kimt and Explore Zip Virus.

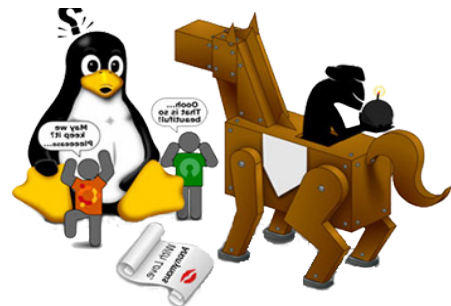


### Introduction to Virus Creation

Alongside with the technology progress in computer programming and computer operating system, these types of virus programs are produced illegally because the producer's goal is to control and smuggling data and information used in technology, military, security, ...etc. fields, and up to date virus production is in progress by those programmers whom have suspected intentions, weather it is data to steal or harm classified computers, sometimes for other purposes.

### Some kinds of computer Virus

Classifying viruses according to aimed targets:-



- **Boor Sector Virus**

This type of virus attacks Boot Sector portion, activates when the computer runs, harms operating system in the computer.



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## • File Infector Virus

This type of virus spreads quickly, generally comes from free downloaded programs through the web, links itself with the downloaded software program and change some orders to make the program unusable such as **CIH Virus**.



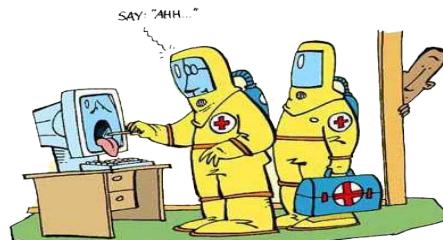
## • Macro Virus

This type of virus is produced to attack some specific programs and files, and activates on the targeted program like **MS-Word, MS-Excel, MS-Access ...etc.** programs which causes malfunction such as **Melissa Virus, Explore Zip, and Bubble Boy**.

## • Hoax Virus

This type of virus, typically, starts as a single email or message sent randomly, it shapes like unsafe advertisement, mostly not very aggressive, t just wastes time, for instance: (When you receive an email from a friend says “**Good Times**”, never open it because it is virus and warn your friends immediately.). Emails like that will burden your inbox and sometimes will cause to hack the email account, some other times unwanted malware will be attached with this type of email which highly harm your computer.

For example, in January 2021, in Brazil, a virus file attached to an email titled “**Life is Beautiful**”.



## Signs that your computer has exposed to a virus:-

- 1) Slow computer performance
- 2) Suspicious hard drive activity or lack of storage space
- 3) change Some icons and file shapes
- 4) Enlargement of some icons and files randomly because of the virus
- 5) Appearance of new files without user’s knowledge.
- 6) Crashes and error messages while executing programs
- 7) Missing or disabling practical files.
- 8) Opening some programs automatically, ...etc.

---

## Ways to protect your computer from viruses

It is not possible to protect your computer from viruses definitively because there is always a new generation of computer viruses, but there are procedures if followed they reduce the risks, such as:-

- 1) Keep Your Windows Up-to-Date
- 2) Use Firewall App to protect your computer
- 3) Install activated Anti-Virus like MacAfee, Avast, Norton .....etc.
- 4) Scanning files and software by Anti-Virus before downloading
- 5) Pay attention to your downloaded Files, scan them by virus detector
- 6) Do not download free software and program from the web.



### Activity//

- Q.1. Is the virus that attack human being's health the same virus that attack computers and break them down? Explain.
- Q.2. What is the impact of virus on a computer?
- Q.3. Name two signs show that your computer has exposed to a virus.
- Q.4. Name two ways or procedures that help to protect computer from viruses.



# 12th Lesson

## Electronic Devices Network

### Lesson Aim

After this lesson, students should know the followings:-

- 1) Recognizing computer network requirements
- 2) The positive and negative effects of computer network
- 3) Recognizing computer network
- 4) Recognizing mobile phone network

### Computer Network

A computer network is a system in which multiple devices are connected for sharing information and resources through using net cards, cables and particular programs in a way where a group of users share to exchange data, the connected devices include printers, scanners, etc. Below are some figures of Computer Network Devices.



### Computer Network Requirements

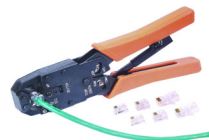
To establish a computer network the following requirements are needed:-

- 1) Two or more computer units
- 2) A **network card**
- 3) Connectors such as **wired** or **wireless** connectors.
- 4) **Hub**, Switch or **Router**



### Hub:

Hub is the most central basic networking device that connects multiple computers or other network devices together from ports through using particular cables.



## Switch:

A network switch is networking hardware having multiple outlets that connects devices on a computer network by using packet switching to receive and forward data to the destination device.



5. Operating program < Network Operating System –NOS such as Windows Network.

It is better to set all devices that form a Computer Network in one room or different rooms. This depends of the connection sort whether it is wired or wireless.

## Computer Network Advantages

Building a computer network has many advantages such as :-

- 1) Easy access of sharing information
- 2) Easy access of data exchange, text messaging, audio and video connections
- 3) Frequent collaboration between the users, for example, when a team works on preparing Computer- Book 7.
- 4) Facilitating buying, selling and advertising business.



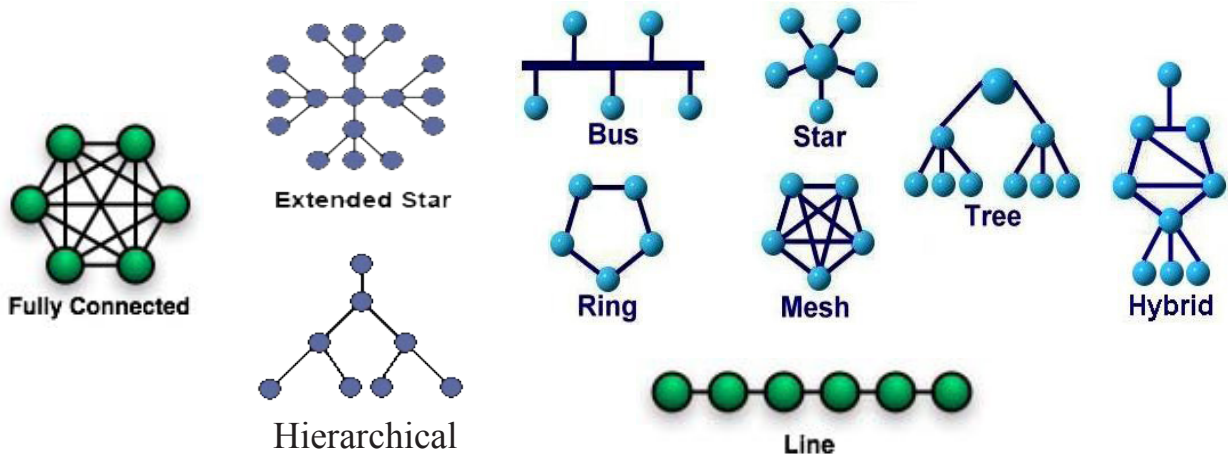
## Computer Network Disadvantages

The disadvantages of Computer Network are:-

- 1) Lacks of robustness because it exposes the computers to unwanted programs.
- 2) There is little policing on a computer network.
- 3) Computers become targets of hackers.

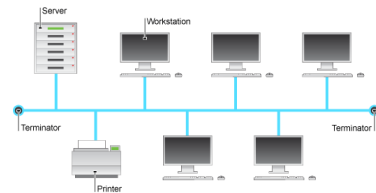
## Network Construction

The way the computers are connected determines the type of the network as shown in the below figures.

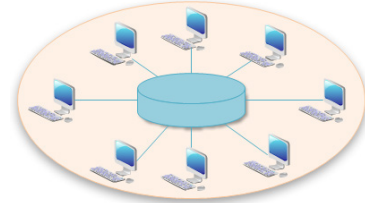


**Example:-**

1) Bus Network is the one shown in this figure.



2) Ring Network is the one shown in this figure.

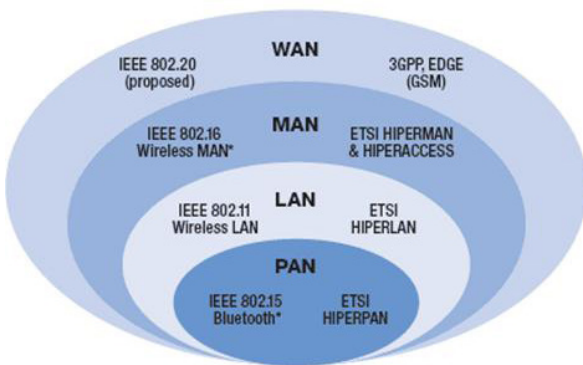


**Internet is the contracted form of International Network which is known as World Wide Web –WWW.**

The origins of the Internet date back to 1960s where this web service was founded and named Arpanet, fully controlled by Department of Defense – United States of America until 1991 which later on became an international wide base commercial company compiling LAN, MAN & WAN.



Now its service covers all over the world. See below figures.



**Activity //**

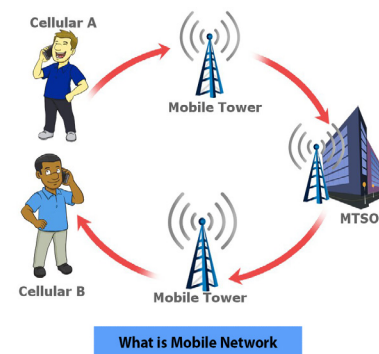
**Q.1.** What is Computer Network?

**Q.2.** Although Computer network has advantages but at the same time it has some disadvantages. Explain this statement.

## • Mobile Network Generations

### Generations of Mobile Networks:

Mobile Network Generation is a network that transfer voice, color and text among smart devices like mobile, computer, tablet ....etc. Each generation of network brought with it a significant milestone in the development of mobile communications. In order to make it work, cell towers were built around the country which meant that signal coverage could be obtained from greater distances the benefits of which we've outlined below.



### First Generation (1G)

First generation mobile networks were reliant upon analogue radio systems which meant that users could only make phone calls, they couldn't send or receive text messages.

### Second Generation (2G)



This new mobile network ran on digital signal, not analogue, which vastly improved its security, but also its capacity. On 2G, users could send SMS and MMS messages, users could receive and send emails on the move.

### Third Generation (3G)

Third generation mobile networks are still in use today. 3G revolutionized mobile connectivity and the capabilities of cell-phones. This means that users could video call, share files, surf the internet, watch TV online and play online games on their mobiles for the first time.



### Fourth Generation (4G)

The introduction of 4G went one step further than the revolutionary 3G. It's five times faster than 3G network. Under 4G, users can experience better latency (less buffering), higher voice quality, easy access to instant messaging services and social media, quality streaming and make faster downloads.

### Fifth Generation (5G)

The 5G network is on its way and is widely anticipated by the mobile industry. Many experts claim that the network will change not just how we use our mobiles, but how we connect our devices to the internet. It delivers data rates orders high speeds with internet.





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In the future, 5G will provide higher qualities of services, lower latency and higher bandwidth, which will help improve user experience both in the consumer and business space , from cloud gaming to telehealth use cases.

**Example:**

- 1 - Voice communication by mobile between two friends.
- 2 - Video communication among group of students in different places.

**Activity /**

Q1 / in which network voice communication between two mobiles is higher quality 3G or 4G?

Q2/ Is there a Video communication available in the first generation?



# 13th Lesson

## Social Networks

Lesson Aim

After this lesson, students should know the followings:-

- 1- Recognizing and listing social network types.
- 2-Familiarizing and recognizing some social network sites (Just for Knowledge)

### Social Networks

Social Network is an idiom used for a number of web sites known as Web 2.0. Each site is built and run by big programming companies providing electronic social services in order to attract the biggest number of users, which allow them to build and organize their personal career, practicing direct video & audio chats, posting articles, sharing information, broadcasting photo albums, etc. It also allows building virtual communities either national or private communities such as school, work, economy, political, .....etc. groups.



### Web 2.0

Web 2.0 is those electronic web sites that allow sending and receiving data at the same time such as [Twitter](#), [My Space](#), [Facebook](#), .....etc.

### Virtual Community

A virtual community is a social network of individuals potentially crossing geographical and political boundaries, sitting in front of cell phone, tablet or computer monitors in order to exchange data and information.

### Social Media Features

- **Global**  
The social media networks cross geographical and political boundaries for the purpose of building a virtual community where individuals all over the world participate.
- **Widely used**  
Students use them for education and learning, scientists use them for spreading and sharing their theories, writers use them to stay in contact with their fans and readers, .... etc.

- **Easy to use**

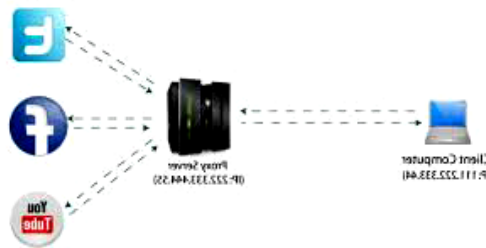
Typically social media networks use a very simple language so as to be digested by the biggest number of users, and most of them have emojis and photos for simplification.

- **Economic**

Social media networks save time and effort, free to use, people at different ages can use them and open account and can occupy a space in the web.

## Social Media Types

There are some specific fundamentals in classifying social media networks, such as:-



- **One**

Classifying social media networks according to their importance and user numbers

- **Personal networks**

Personal web pages are created by an individual to contain personal information for dating and data exchanging.

- **Cultural networks**

This type of page gathers art and culture enthusiasts.

- **Professional networks**

A professional web page is a private page that gathers professional craftsmen in order to create training environment and learning

- **Two**

Classifying social media networks according to users permit

- **Local Social Media Network**

It is a private network belongs to a company or an organization ..etc, just members of the community can access it.

- **Public Social Media(General)**

It is that type of social media which permits all internet users to share it for the purpose of dating.

---

## Some popular social media networks (Just for information)

### 1- Facebook

Facebook is the largest social networking service founded in 2004 and has the biggest active users. In 2007 owners upgraded it as a result it became wider in use and its members increased enormously due to its policy which permitted users to create profiles, upload photos, join a preexisting group, and start new groups.



### 2- Twitter

Twitter is online news and social networking site where people communicate in short messages called tweets and permits users to post short messages of 280 letters.



### 3- YouTube

YouTube is the largest web site for sharing videos.



### 4- LinkedIn

LinkedIn is the biggest business and employment-oriented online service, typically for companies and people and experts who work in various sectors. Users in LinkedIn can communicate with colleagues in their field all over the world.



## Activity //

Q.1. What are the basic features of Social Media? Name them only.

Q.2. Virtual Community is .....



# 14th Lesson

## Advantages and Disadvantages of Social Media

Lesson Aim

After this lesson, students should know the following:-

Recognizing and indicating the advantages and disadvantages of social media

### Social Media Advantages:-

- 1- Connecting people and building virtual community.
- 2- Sending messages and performing live chats (video and audio chats).
- 3- Can be used as Educational process.
- 4- Can be used in administrative offices (building administrative groups).
- 5- Can be used for media and information( broadcasting news and propaganda)

### Social Media Disadvantages:-

- 1- Cyber bullying
- 2- Spread of fake and disgraceful deeds
- 3- Abusing private and public rights
- 4- Ruins reputation, distracted mind and deception
- 5- Hacking
- 6- Addicting and time wasting
- 7- Demotes family and social intimacy, encourages to pay lots of attention to others rather than family



### Beware

- It is not right to say that all posted articles in social media are accurate and true.
- Preserve your secrets; do not save them in computers hooked up with internet.
- Try to permit familiar people to view and share your private page.
- Follow practice limitation policy for those individuals who want to be in your pal-list. Keep some restrictions.
- Keep a spare copy of your data and information.
- Install active and legal anti-virus in your computer.
- Always check your files.



### Activity //

- Q.1. Name three advantages of social media network usage.
- Q.2. Name three disadvantages of social media network usage.
- Q.3. Name three cautions of social media network usage.

**15th  
Lesson**

**General practice of Part One**

**Question // Choose the right answer:-**

1- The first computer founded in .....

(1945 , 1964 , 1946 , 1948)

2- A letter, number, symbol, audio, video and photo group is called.....

( Data Analysis , Data , Information , All of them)

3- One of the important features of computer is .....

( small in size , high speed in performance , easy to transport, good looking)

4- The output collections come out from computer is known as .....

(data, function , information , none of these)

5- Computers are used in ..... sector.

(Education , Health ,Trading , all of these)

6-Computers are used in various sectors because.....

( it is easy to use , has specifications , it is cheap to purchase , there are many

7- Computers mostly used by children are called.....

( Home Computer , Micro Computer , Mainframe , Mini Computer)

8- It is an important program which helps in running the computer.

( Programming Language , Database , Operating System, Utilities)

9- Anti-Virus program is ..... program.

( Operating System , Utilities , Programming Language, Database)

10- The most important unit in computer which acts like human being brain is .....

( Output Units , Storage Units , Input Units , CPU)

---

11- A unit in computer that is responsible of math and algebra functions.

( **CPU** , **Hardware** , **ALU** , **Control Unit** )

12- A memory of 1024 MB, its storage capacity is .....

( **1 EB** , **1 GB** , **1 TB** , **1 KB** )

13- 1 Byte is equal to ..... ( **8 Bit** , **16 Bit** , **32 Bit** , **64 Bit** )

14- ..... is the main memory of a computer for saving all data and information.

( **RAM** , **Hard Disk** , **Compact Disk** , **Storage Unit** )

15- In general, the capacity of data saving of a CD is.....

( **9.4 GB** , **512 MB** , **4.7 GB** , **700 MB** )

16- It is a cheap, small in size and the most popular memory.

( **DVD** , **Memory Card** , **CD** , **Flash Memory** )

17- If a RAM size is 4 GB, it is equal to ..... in Bits.

( **4294967296 B** , **4194304 B** , **44096 B** , **256 B** )

18- A keyboard is the ..... device.

( **Input** , **Processor** , **Output** , **none of these** )

19- Win, Esc, Ctrl and Alt are ..... buttons/clickers.

( **Typing** , **Transferring** , **Planning** , **Controlling** )

20- A keyboard is used to transfer data and information in ..... form.

( **letter** , **number** , **symbol** , **all of these** )

21- ..... is a clicker used to shift the writing cursor to a new line.

( **Delete** , **Enter** , **Spacebar** , **Backspace** )

---

22- A mouse is one of the main devices of .....

( **Exporting** , **Inserting** , **Controlling** , **Processing** )

23- It is a device for providing sounds to a computer.

( **Microphone** , **Light Pen** , **Scanner** , **Camera** )

24- It is a device used to import sound from a computer.

( **Plotter** , **Monitor** , **Printer** , **Speaker** )

25- It is the factor that has the most impact on computers performance.

( **CPU** , **ROM** , **HDD** , **RAM** )

26- The load of any open program is on .....

( **CPU** , **ROM** , **HDD** , **RAM** )

27- The features of a virus:

( **Copying itself** , **Moving from a computer to another** , **Hiding and preserving itself** , **all of these** )

28- The fastest Internet in this generation is: ( **2G** , **3G** , **4G** , **5G** )





# Part Two

# Windows 10



# 16th Lesson

## Operating Systems

Lesson Aim

After this lesson, students should know the followings:-

- 1) Recognizing some operating systems
- 2) Microsoft and Windows, Windows 10, the features and icons of Windows 10.

### Operating System

An operating system is all these software programs which performs all the basic tasks of operating computers, smart phones, etc., and controls all physical materials and software in the devices like, Linux System, Windows Mobile, Android, ISO etc. Microsoft Windows is the most popular one.



### The most used operating system

#### Android

Android is an English word means robot, in science fiction this robot looks like human being. This term is used for operating free system, based on the Linux kernel and supported by Android API (powered by Java and currently kotlin API is also used) in program writing and system improvement. This system is developed to be primarily used for touchscreen devices such as smartphones and tablets. Andy Rubin, the computer programmer is the founder of Android.

The system supports (GPS, GSM, EDGE, IDEN, UMTS, LTE, EV-DO, WiMAX, WIFI, Bluetooth, NFC, SMS, MMS languages).

#### Front page of Android

The Interface of this system is basically based on 3D graphics which has a main operating Interface for displaying app shortcuts that are supported by widgets such as weather, Facebook and Twitter apps. Despite that, Android supports swiping the screen horizontally to left and right by using finger as well as switching between the main screen and another screen (another operating interface) in which contains a group of icons .

## iOS System

iOS is the operating system created and developed by Apple Inc. exclusively for its hardware such as iPhone, iPad and iPod Touch, at birth was called OS, later in 2009 its name changed to Ios. The features of this system, just like the other systems, powered by Graphical User Interface – GUI and touch screens, this means,



using mouse and keyboard within the system itself and that is through touching the screen by fingers or using special pens as shown in the below figure.

## Microsoft Windows System



Microsoft Windows is computer operating system of graphical user interface developed by Microsoft Corporation. In response to the growing interest in graphical user interfaces, Microsoft introduced the first generation of Windows in 1985 to control personal computer marketing and the company upgraded the system and produced improved versions and generations of Windows such as **Windows 1.0** , **Windows 1.2** , **Windows XP**, **Windows Vista**, **Windows 7**, **Windows 8**, **Windows 10** and **windows 11**.

## Windows 10



It could be said Windows 10 is the best release of the Windows as the successor to Windows 8 which was released in 2015 and fits regular computers, tablets and cellphones.

One of the characteristics of Windows 10 is high speed in performance at start up and touch pad theme rather than mouse and keyboard. In this version of Windows the Taskbar icon is placed which simplifies access to get to installed software of the computer.

## Windows 10 installation requirements

To install and operate windows 10 on any computer, the device must have the following features:-

Processor CPU	<b>1 GHz</b> or more
RAM	<b>1 GB</b> or <b>32-Bit</b> or <b>2 GB</b> or <b>64-Bit</b>
Hard disk space HDD	<b>16 GB</b> for <b>32-Bit</b> or <b>20 GB</b> for <b>64-Bit</b>
Graphics card	<b>Microsoft DirectX9 graphics device with WDDM 1.0 driver</b>
Screen resolution	<b>800*600</b>

---

## Icons

Icons are a small different graphical representation of a file, a folder, order or a program which facilitates reaching to the associated programs or files. such as opening program, file, folder...etc

## Windows 11

After windows 10, another windows was released on October 5, 2021 named windows 11, which has different features and style when compared to windows 10 and other previous windows, it has a new operating system in hardware that are not available in old processors.



## Activity//

Q. If a computer has press following features, which operating system can be installed?

**AVG-Adapter**= 1GB , **HDD**=1 TB , **RAM**= 8GB , **CPU**= 2.8 GHs

# 17th Lesson

## Windows 10 Front page

Lesson Aim

After this lesson, students should know the followings:-

- 1- Recognizing Windows 10 Front page and its component
- 2- Turning off computer and desktop component

**Start**



To turn on /start a computer, all you need press the Power button, a few seconds later the computer will be ready to use.



### Windows 10 Front page

In windows 10 front page, we can see these two parts:-

- 1) Start
- 2) Desktop

#### 1- Start

When the computer is turned on, the first windows 10 front page shows up is as shown in the below figure, It is called start.



#### Start Menu Content

Start Menu is a graphical user interface element that has a number of icons appears as tiles. These icons provide a central launching point for computer programs by clicking on any one of them the task launch. Some of the icons related to the site pages, you can use them directly if the computer is connected to the internet, others are related to the operating system which is located on the upper side of the Start Menu.

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**Note:**

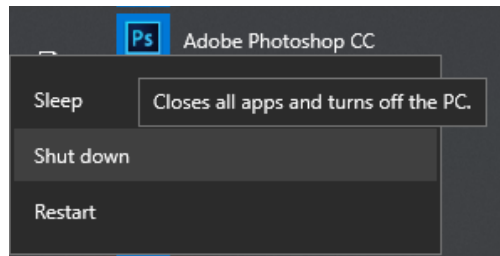
( By clicking **Alt + TAB** buttons at the same time, the Start Menu shows up.)

## Shut Down and Restart

To turn off the computer in proper way, one should do the following procedures:-

- 1) Click Start icon
- 2) Click Power icon
- 3) Click Shut Down

See the figures.



### By clicking on:-

- **Sleep :**

This order puts the computer on sleep mood, once any button is hit the computer starts again.

- **Shut down:**

It is used to shut down the computer; the device shuts down after a few seconds of pressing the Shut Down icon.

- **Restart:**

Once this function operated, the computer shuts down and starts again automatically.

**Or** ( when you press **Alt + F4** buttons together at the same time, the below windows pops up, then select **Shut Down** and click **OK**.)

### Activity //

**Q.** How can we activate the last open window?

# 18th Lesson

## Desktop

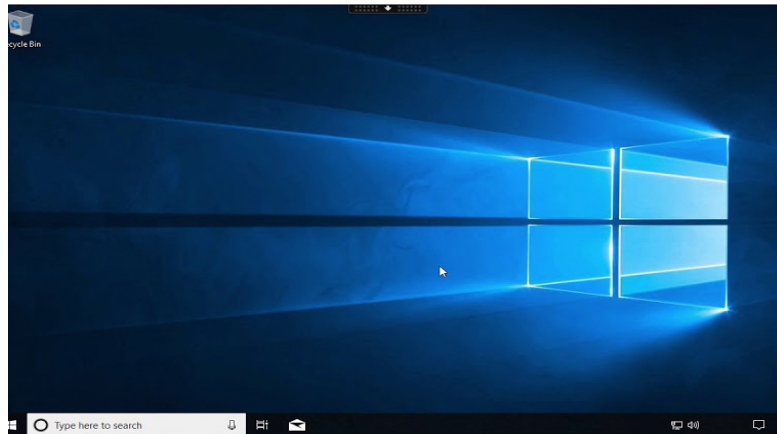
Lesson Aim

After this lesson, students should know the followings:-

- 1) Recognizing Desktop in Windows 10
- 2) Inserting main desktop icons and program closing.

### 2- Desktop

We can open Windows 10 Desktop as shown in the bellow figure.



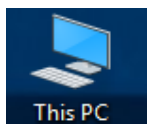
### Desktop components

As it shown in the above figure, the front page only has Recycle Bin icon where beneath it there is Taskbar icon which on the right side shows calendar icon, speaker icon (increase and decrease volume), language icon and active programs. On the left side of the Taskbar there is Internet Explorer and Internet Explorer's folder, besides there are other icons as there are the Task View and Start icons.

### The main Desktop icons are :-



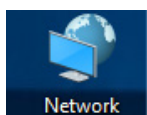
**Recycle Bin:** Contains the deleted files and folders



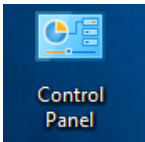
**Computer:** To deal with physical components and programs



**User Documents:** Documents or files of the user are kept in



**Network:** To show known and unknown nets



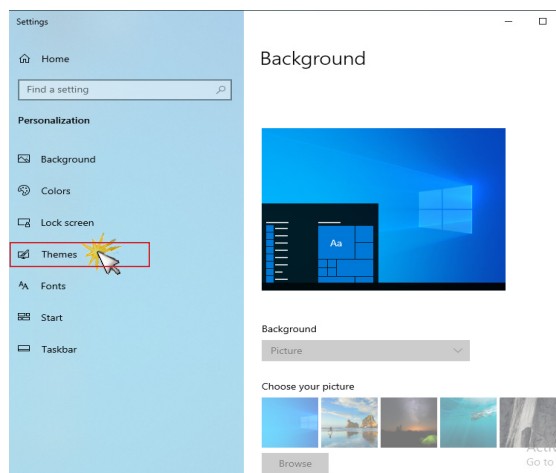
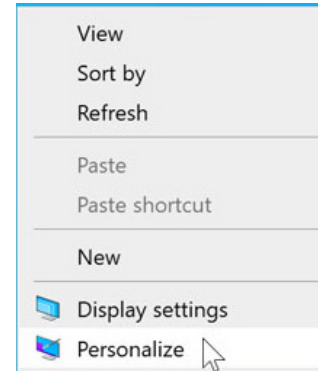
## Control Panel:

To control the computer components and has a set of applets that include adding or removing hardware and software for operating windows.

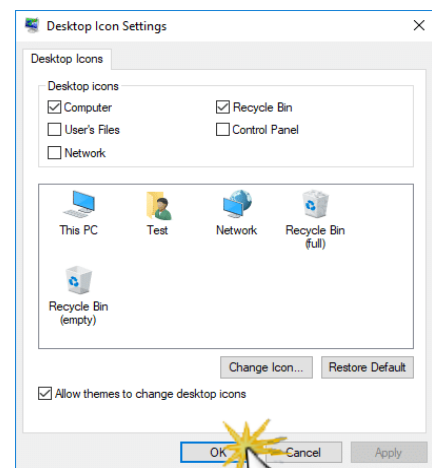
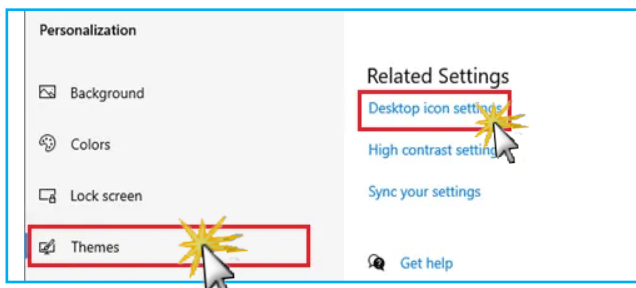
## Inserting Essential Desktop Icons

This will be performed:-

- **Right click** on a blank area on the **desktop**, the menu shown in the figure appears.
- When the menu appears, click on **Personalize** then the figure below shows up.



- If you click on the **Theme** icon, this window pops up, then click on **Desktop icon setting**.
- Later on the list shown in the figure appears , select an icon, click **OK**, then the icon will be added to the Desktop



### Activity //

Q.1. What are the essential parts of Desktop?

Q.2. Name the major icons and explain how they can be set on the desktop.



# 19th Lesson

## Background & Screensaver

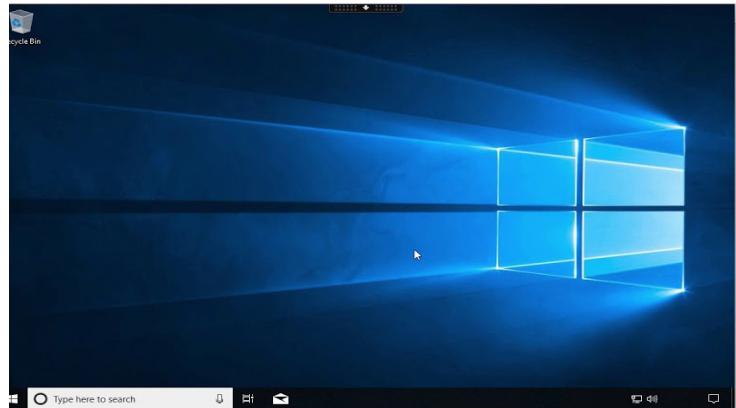
Lesson Aim

After this lesson, students should know the followings:-

- 1) Put and change desktop pictures.
- 2) Put and change screensaver pictures.

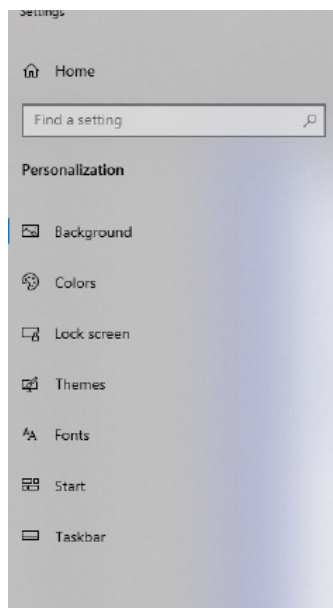
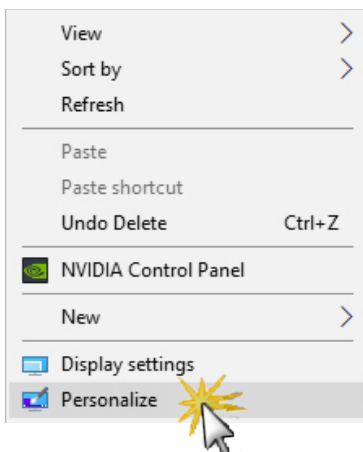
### Background

Background is a number of (pictures, fixed colors, slide shows) installed in advance which covers the desktop and can be replaced with another (picture, fixed color and slide show).

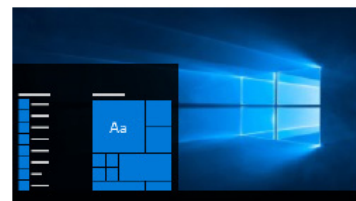


### Replacing Background Pictures

- When you press the right click on a blank area of the desktop, this menu appears:
- In the menu, click on Personalize icon, the following windows appears.
- In the below window, select a photo and press right click, the picture changes.



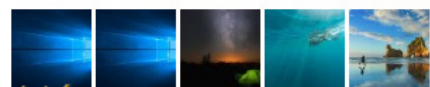
### Background



Background

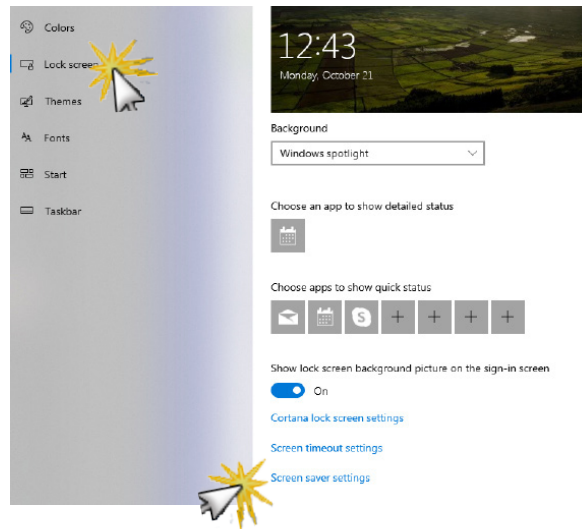
Picture

Choose your picture



## Screensaver

- A screensaver is a software program that becomes activated after the computer has been inactive for a specified amount of time, (prevents the screen from damages of overheating). It can be said that this issue is solved in the new generations of screens.

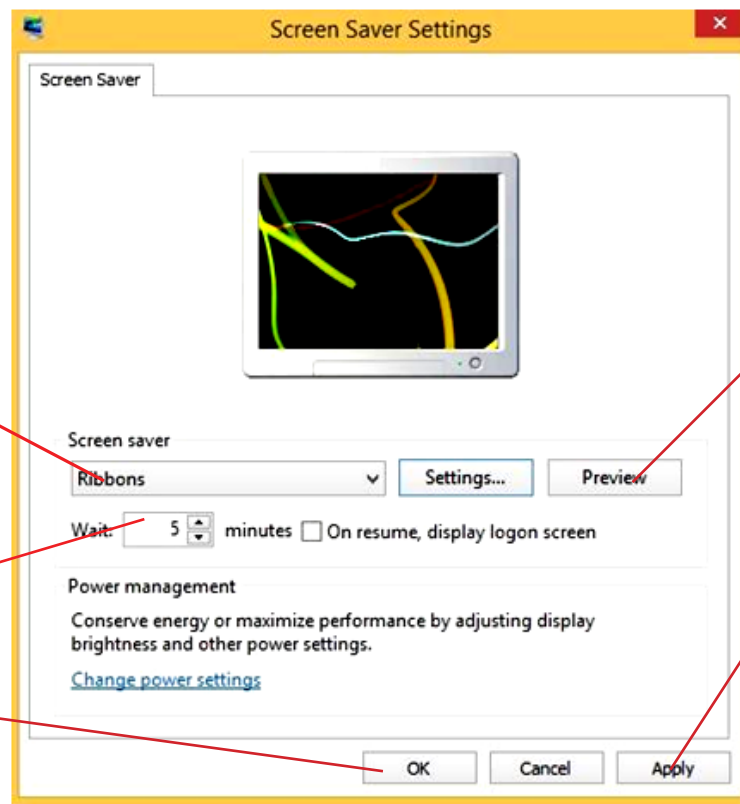


- When windows software is installed in a computer, a package of screensavers will be installed too. We can choose one of them and activate it.
- Accordingly to the same procedures as explained in item line one and two, we can change the background picture.
- In step three, as shown in the above figure, click on **Lock Screen**, then press **Screen Saver Setting**, the **screensaver setting** windows pops up through which we can perform the changes as shown in the below figure.

**Ribbons:** for choosing one of the designs in a screen saver.

**Wait:** wait time for activating screen saver.

**Ok:** for activating screen saver with turn off from the window.



**Preview:** for viewing screensaver directly.

**Apply:** for activating screen saver without turning off the window.

**Activity/Q.** What is the difference between Background and Screensaver? In installation point of view, what are their common steps?

# 20 Lesson

## files and folders

Lesson Aim

After this lesson, students should know the followings:-

- 1) Recognizing files and folders
- 2) Adding and removing files and folders.

### File

Saving data in computer is known as file, such as document file, photo file, audio file and video file.

We can put names for files such as names, numbers, but there are some symbols that cannot be used in file names such as (/ , \ , : , , , \* , > , < , ? , and so on symbols). File names ends with a full stop, after it mostly three letters come( sometimes more and sometimes less than this number) which is the abbreviated form of the **File Extension** that specifies the file type, for example, x is one of Microsoft word files and its extension is **docx**.



Another example is Kurdistan.jpg which is the extension of jpg. Which is a photo form file look at the opposite figure which contains different files.

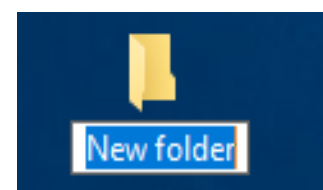
### Folder

A folder is like a container where files, or other folders, can be stored in, but a folder cannot be stored in a file.

### How to create a folder:

For creating a new folder anywhere in your computer, follow the following procedures:-

- 1- Open the targeted location where you want to add a new folder.
- 2- Press **right click** in a blank area.
- 3- In the opened menu, select **NEW** ( press left click on **NEW**)
- 4- A secondary menu appears, **folder** is included.

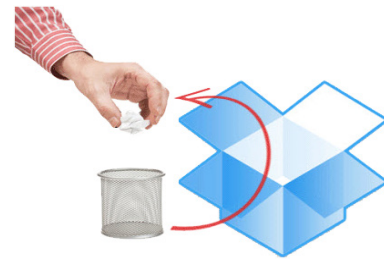


---

5- A **new folder** will be added, named **New Folder**. Still it is named as “ **New Folder**” and pends to be renamed. Once you rename the file, press the **Enter** button on your keyboard or any blank area on the desktop, then you get an added Folder with name.

## **File and Folder deleting**

There are two ways for deleting files and folders:-



### **• Temporary Delete:**

Temporary delete means sending files and folders to Recycle Bin (remain in computer which later on can be restored). This function happens according to the following procedures:-

- 1) By pressing the right click on the targeted file or folder, a list shows up....
- 2) In the list, press (left click) on **Delete** order.

Or

- 1) Press on the targeted file or folder (left click)
- 2) ( press the **Delete** button on the keyboard)

### **• Permanent Delete**

By processing this type of deleting, the specified deleted file or folder is not going to be sent to the Recycle Bin, but it will be removed from the computer forever. This can be performed according to the following procedures:-

- 1) Identifying the targeted file or folder for deleting ( by right click)
- 2) (Press both **Delete + Shift** buttons together. Put one of your fingers on Shift, and put another finger on Delete and keep this sequence because it works just in this way), as a result, a box pops up grants the success of the procedure.
- 3) Then click on **YES** for execution, but if you click on **NO** the deleting procedure will be canceled.

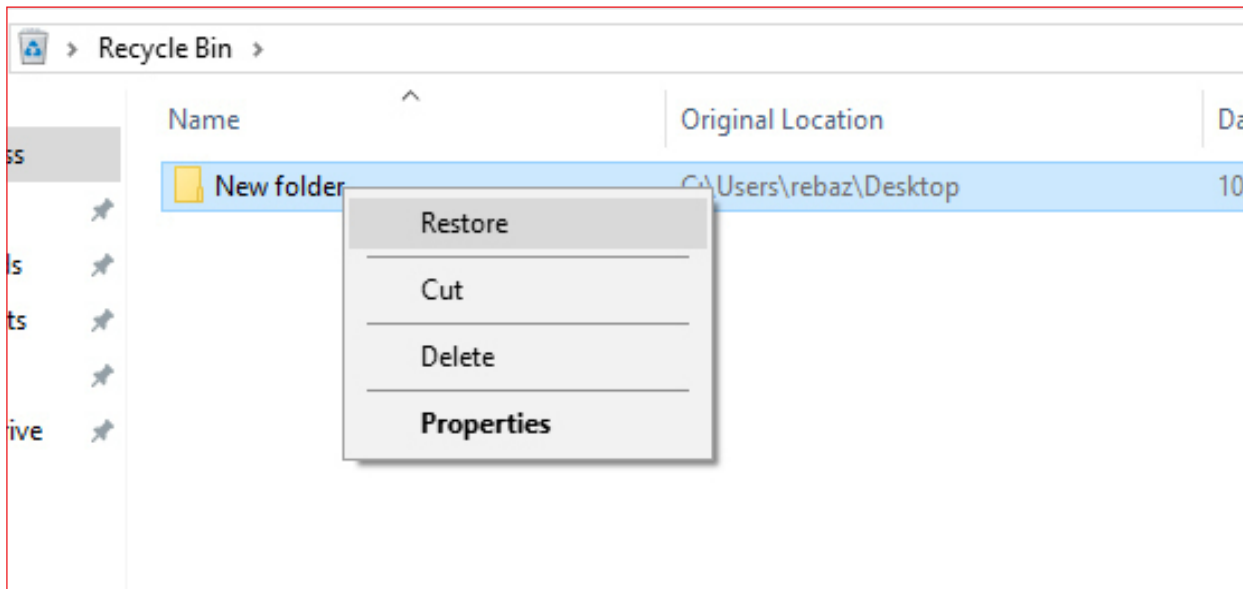
## **How to restore deleted files and folders**

Files in Recycle Bin can be restored and sent back to their original locations or any new required location according to the following procedures:-

- 1- Double click on Recycle Bin icon (Recycle Bin folder will open)
- 2- Inside Recycle Bin folders select the file or folder you want to restore, a list of orders shows up.
- 3- Click on Restore order.

---

In this way the deleted file or folder will be restored and sent to its original destination ( sending the file or folder to another destination can be performed after you open the Recycle Bin, then Drag & Drop it to the required place as shown in the below figure.



**Activity//**

**Q.1.** What are the procedures of permanent delete of a file?

**Q.2.** What are the procedurs to restore a file in Recycle Bin?



**I use my computer  
for studying**



# 21 Lesson

## Taskbar

Lesson Aim

After this lesson, students should know the followings:-

- 1) Recognizing taskbar features
- 2) Organizing icons

### Taskbar

Taskbar is a horizontal strip of icons usually at the bottom of a computer screen typically shows which programs are currently running, but sometimes locates beneath open windows according to the windows specification.

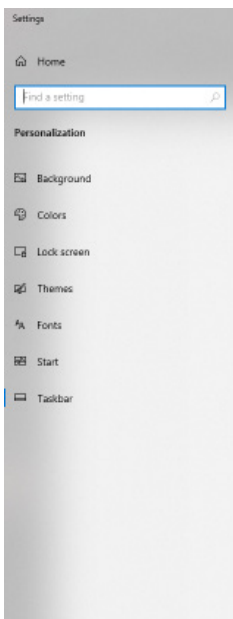
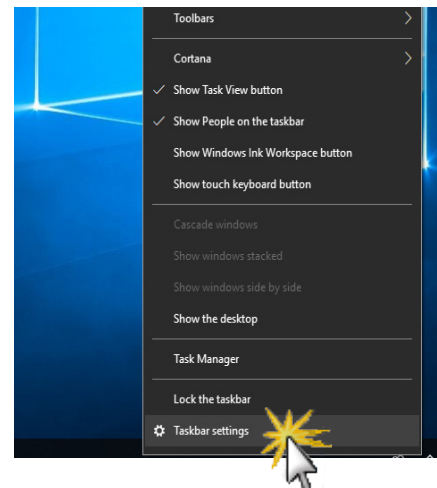
In the right side of taskbar strip, there is calendar, language bar, speaker icon and some minimized symbols representing programs status. In the middle of taskbar strip there are small windows of open programs and files. On the right hand there is **Start icon**.



### Some Taskbar features

For changing and editing taskbar strip, follow the procedures below:-

- 1) Press right click on a blank area in taskbar strip, a list appears as shown in the given figure.
- 2) In the open list, click Taskbar Setting, a windows pops up as shown in the below figure.



#### Taskbar

Lock the taskbar



- For closing taskbar

Automatically hide the taskbar in desktop mode



- For hiding taskbar strip automatically

Automatically hide the taskbar in tablet mode



Use small taskbar buttons



- For showing taskbar icons in small sizes

Use Peek to preview the desktop when you move your mouse to the

Show desktop button at the end of the taskbar



- For identifying taskbar destination

Replace Command Prompt with Windows PowerShell in the menu

when I right-click the start button or press Windows key+X



- For customizing taskbar icons

Show badges on taskbar buttons



Taskbar location on screen



Combine taskbar buttons

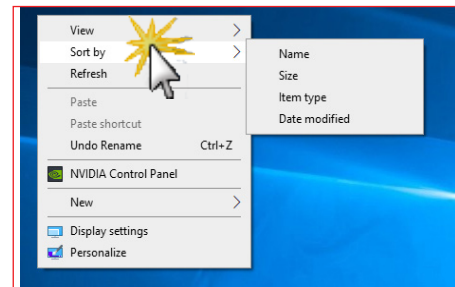


## Dealing with Icons

To sort icons according to name, size, item type, date installed or modified, do as follow:-

- 1- Right click on a blank area, a list shows up.
- 2- Select Sort by, sub- list shows up.
- 3- In the sub-list, select one of the followings:-

- **Name:** Sorts according names.
- **Size:** Sorts according sizes.
- **Item type:** Sorts according type.
- **Date modified:** Sorts according to the date where the icon created or modified.



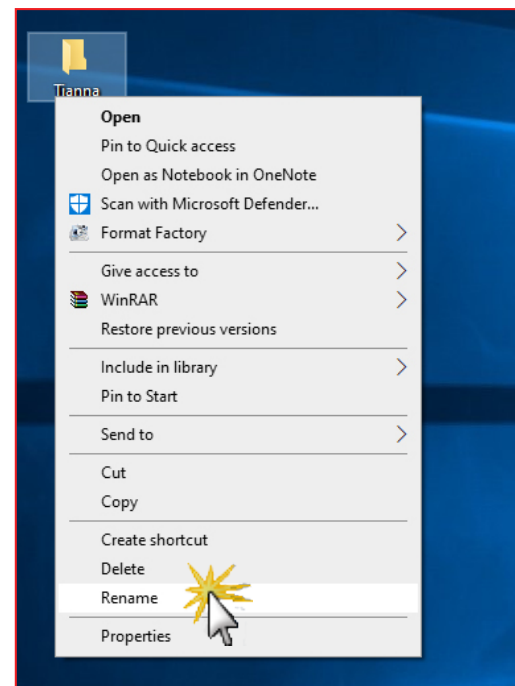
## Identifying Icons

When you click on an icon, that means you identified it, to identify two or more icons, (go to your keyboard, press Ctrl button, keep pressing on it, then move the mouse onto other items and left click on them). To select all icons press (Ctrl + A).

## Changing Icon Name

To change icons name, do the followings:-

- 1) Select an icon; right click on it, the list shown in the figure pops up.
- 2) Select “**Rename**”, file name box will be highlighted.
- 3) Type a new name for the icon.
- 4) Click outside the icon boundary, or ( press **Enter** button in the keyboard), the icon name is changed.



## Activity//

- Q.1.** What are the procedure to hide taskbar strip?
- Q.2.** What are the steps to sort icons via names?
- Q.3.** How you rename a folder named “Hawler” to “ Kirkuk”?



# 22 Lesson

## Copy, Cut & Paste

Lesson Aim

After this lesson, students should know the following:-

How to execute copy, cut & paste order.

### Copy, Cut & Past Command

#### • Copy

Copy is the act of duplicating text, data, files, or disks, producing two or more of the same file or segments of data and moving the copy to another location while keeping the original one in its basic destination.

#### To copy a file, do as follow:-

- Right click on the file or the folder, a list pops up.
- In the list, click on Copy command.

Now the process of copy has done but nothing will happen unless you paste it somewhere

#### • Cut

Cut is the command of moving the original file, folder ...etc. from its location to another destination. To perform this process, conduct the following steps:-

- By performing right click on the file or folder, a list pops up.
- Click on CUT command in the list.

Now the file or folder cut is completed (the icon color of cut file or folder changes to light color) but nothing will happen unless you Paste it somewhere.

#### • Paste

Paste is a command that allows you to insert copied or cut file or folder and place it in required destinations. In order to use the Paste command, you must do as below:-

- Right click on the required destination, a list pops up.
- Click on PASTE command in the list.

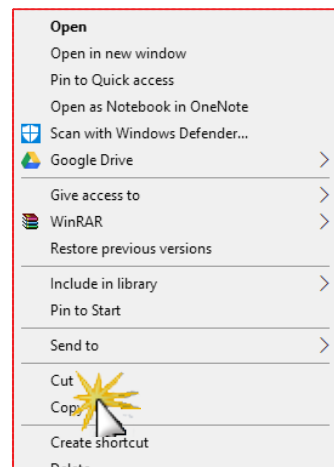
The copied or cut file or folder will stabilize in the location you clicked on.

### Example:

To move a photo file named “Hawler” in D Drive to Flash Memory...

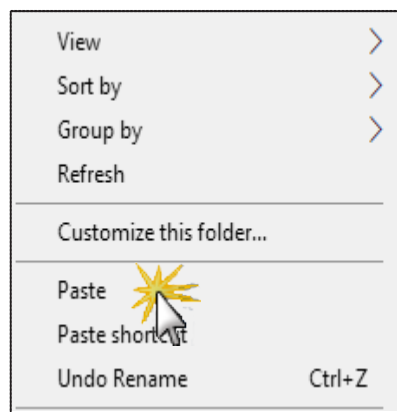
### Method One

- 1- Open D Drive; right click on the photo file, a list pops up.
- 2- Click on CUT command in the list ( move command means **CUT**)
- 3- Open the Flash Memory, select a place, right click, then press at Paste command. See the below figure.



### Method Two

- 1- In D Drive, left click on the photo file.
- 2- (Press **Ctrl + X** on the keyboard)
- 3- Select a destination in the Flash Memory Drive, ( Press **Ctrl + V** on the keyboard), or press right click and select Paste command. See the below figure.



### Activity//

Q. How you move a file named “**ilan**” from D Drive to a Flash Memory?

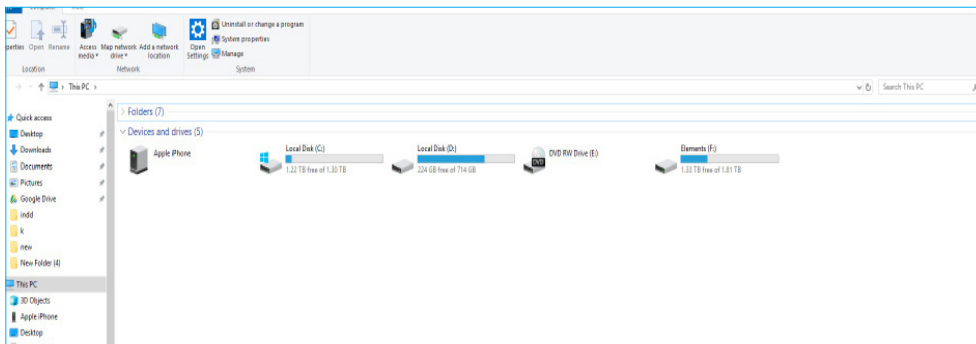
# 23 Lesson

## Organizing Windows and Search








### Lesson Aim

After this lesson, students should know the followings:-

- 1) Organizing Windows
- 2) Performing Search



### Dealing with Windows

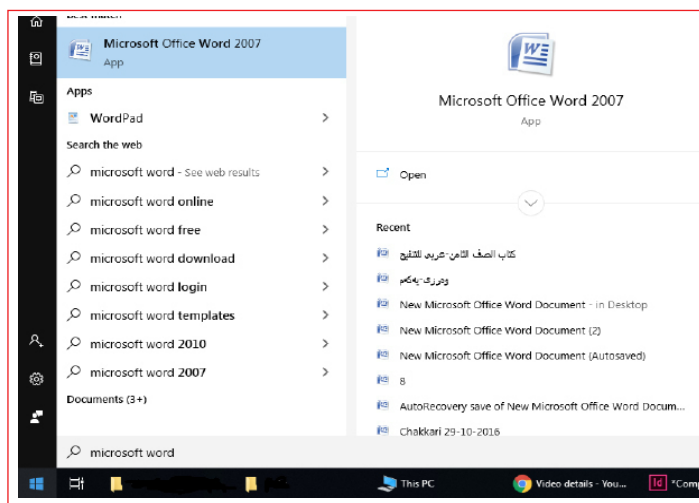
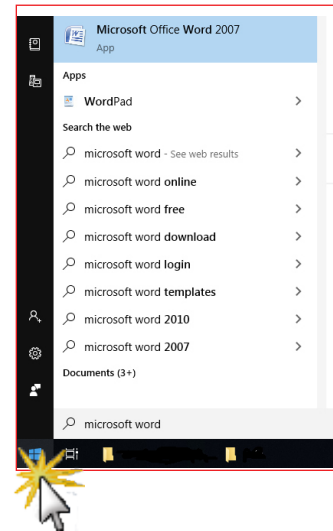
- **Close**
- **Desktop**, after activating the windows
  - In Title Bar strip ( the first strip on the top of windows) on the right side, click on (X) **Close icon**.
  - Or **Press Alt +F4** on the keyboard.
- **Minimize** —  : To do this, click on the icon, and then click on program icon in **Taskbar**, the window opens.
- **Restore Down**  : By clicking on the icon it looks smaller than the desktop.
- **Maximize**  By clicking on the icon, the size of the window fits the desktop size.
- **Resize** : **Resize** is the process of resizing window (increasing or decreasing) to allow them to view other window on the screen. To act this command the window must be in **Restore Down** mood, this happens when the mouse cursor is moved to the one of the ends of the window till the cursor shape changes to one of these (     ), then **Drag & Drop** takes place according to the destinations targeted.
- **Move** : **Move** is the process of moving window from a place to another. To act this command the window must be in Restore Down mood, this happens when the mouse cursor is moved to the strip of Drag & Drop, then move the mouse cursor to destination targeted.

## Search

Search is the function or process of finding programs, files, or folders in a computer that have named but the user does not know their locations. To do search process successfully, practice the following procedures:-

- **Click on Start**

- Write the file or folder name, the file shows up immediately. For example: If you want to act search for Microsoft Office Word, once you write the file or program name, the required subject shows up. By clicking on the icon, the related documents show up. See the figures below.



## Activity//

**Q.1.** How do you minimize open windows and later on make it accessible for viewing.

**Q2:** what does search mean?

# 24 Lesson

## Date, Time & Language

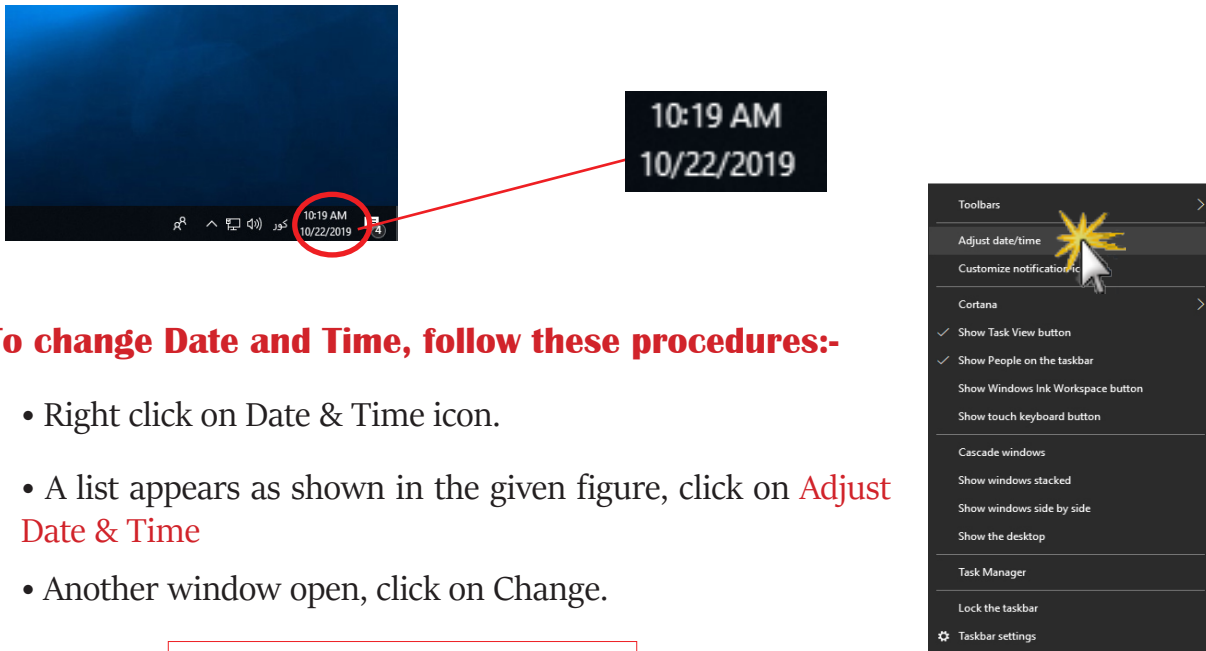
Lesson Aim

After this lesson, students should know the followings:-

- 1) Adjusting Date and Time
- 2) Adding/Removing Language

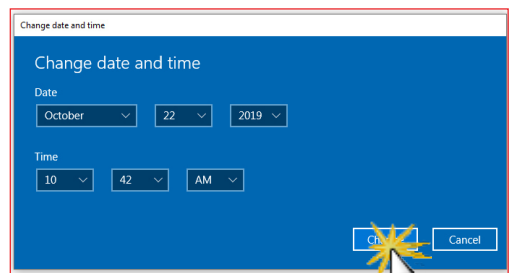
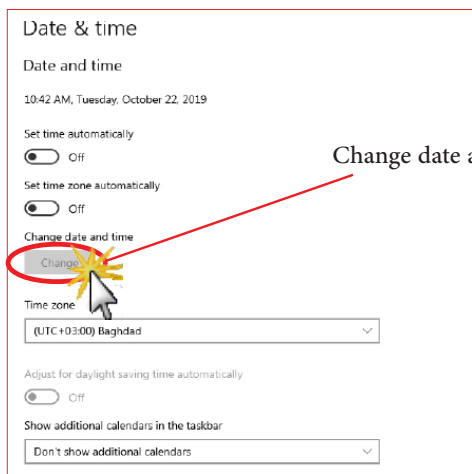
### Adjust Date and Time

Date & Time icon locates at the right lower part of the desktop, appears in Taskbar strip as shown in the below figure.



### To change Date and Time, follow these procedures:-


- Right click on Date & Time icon.
- A list appears as shown in the given figure, click on **Adjust Date & Time**
- Another window open, click on Change.

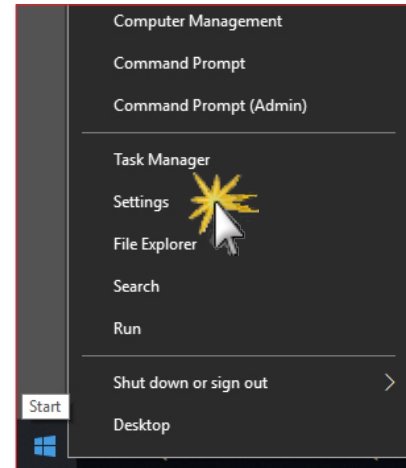


- Later on the window shown in the below figure pops up, by clicking on **Change** command we can change date and time.

## How to add/remove a language

When first you install windows system in your computer, the only language option is English. To add Kurdish, Arabic or any other language, follow these instructions:-

- Click on **Start icon** 
- Click on **setting**, a window will open.
- Click on **Time and Language** as shown in the figure.
- Then click on **Language**.
- Click on **add language**
- Select a **language**
- Then click on **next**
- Finally click on **install**



Windows Settings

2.

Find a setting



Phone  
Link your Android, iPhone



Network & Internet  
Wi-Fi, airplane mode, VPN



Time & Language  
Speech, region, date



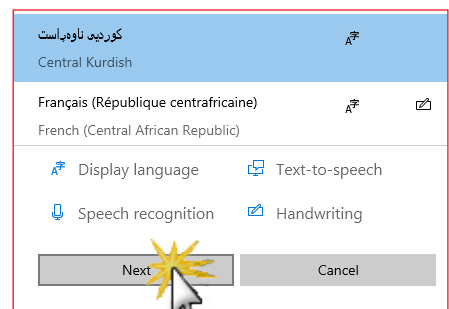
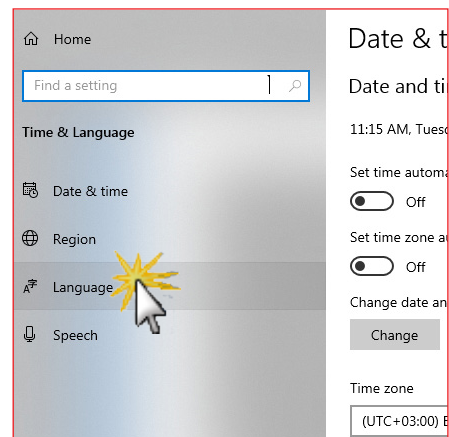
Gaming  
Game bar, captures, broadcasting, Game Mode



Add a language



English (United States)  
Default app language, Windows display language

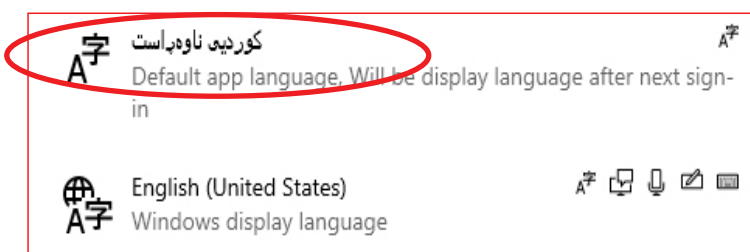


Choose a different language

Install

Cancel

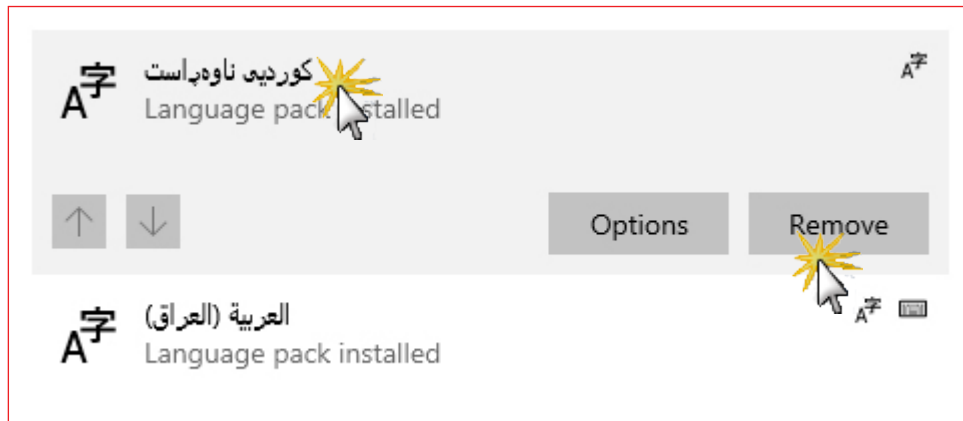
6.



---

## Remove Language

To remove a language follow the same instructions practiced in (add language) until you reach step 4. In step 5 click on the language you want to remove, then click on Remove.



### Activity//

Q.1. How can you adjust the date and time in your computer to make it 1-1-2020 , 11 am?

Q.2. Can you add Kurdish language to your computer? How?



# 25 Lesson

## Install and Uninstall Programs

Lesson Aim

After this lesson, students should know the followings:-

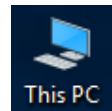
- 1) How to install programs in computer system
- 2) The main way to uninstall programs in computer system

### How to add/remove programs in windows 10:

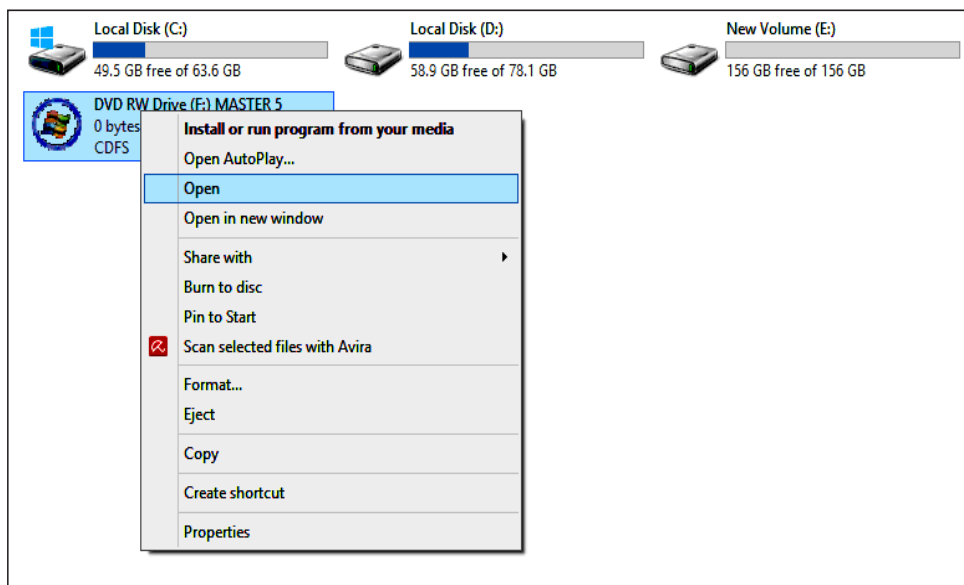
• Add program: It is the process of installing a program in computer. To execute this function we should be aware of some facts.

- 1- Does the specification of the computer match and allow the installation of the program.
- 2- Does the installation of the program has any risk to harm the computer, especially the programs that we download from internet ( **contains virus** )

To install any program depends on the program type. Below are some of the procedures followed in installing any program whether from **CD drive** or **DVD drive**



- Double click on **My Computer icon** on your desktop.
- Right click on **CD/DVD Drive** ( a list of commands shows up) as shown in the below figure.
- Then click on Open to view the content of the **CD/DVD**.
- Select “**Setup**” file to start the installation process, and then follow the rest steps.



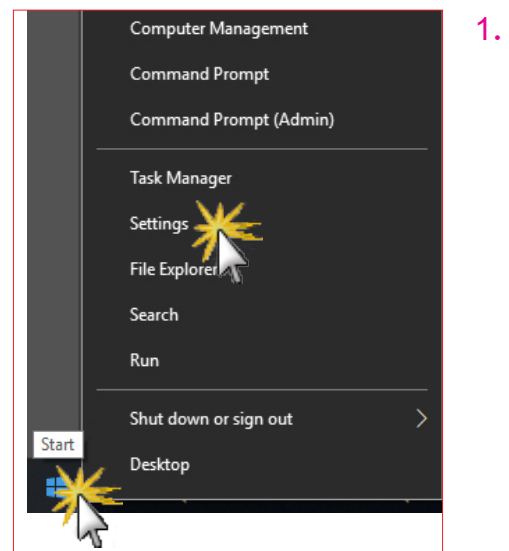
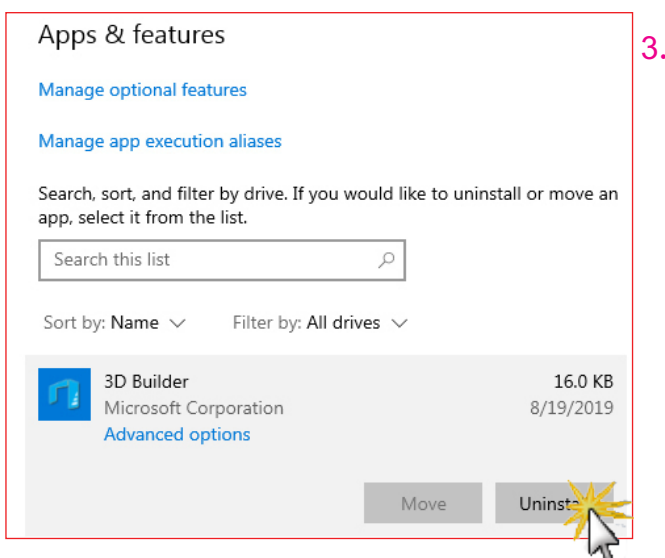
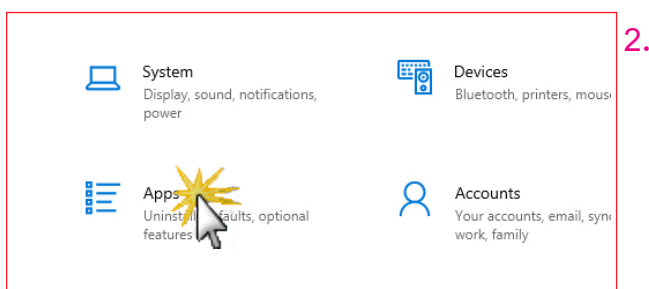


## Uninstall Program

likewise installation to process of uninstallation depends on the program type.

Uninstalling program means deactivating a program and removing it constantly. To accomplish this:-

- Right click on **Start**
- Click on **Setting**, then click on **Apps**.
- Select the program you want to **uninstall**, then click on Uninstall, as shown in the below figures.



## Activity//

**Q.1.** How to install a Media Player program from a Flash Memory in a computer?

**Q.2.** What are the procedures to uninstall Adobe Photoshop from a computer?

# 26 Lesson

## Paint

Lesson Aim

After this lesson, students should know the following:-

How to use Paint program

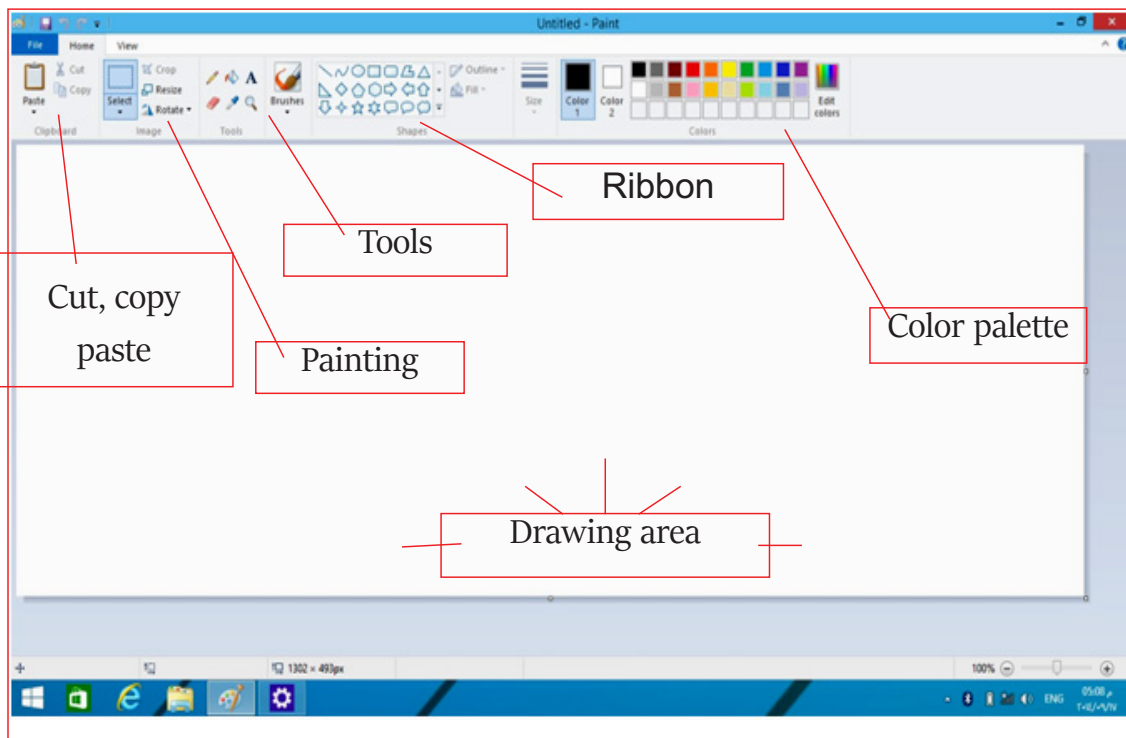
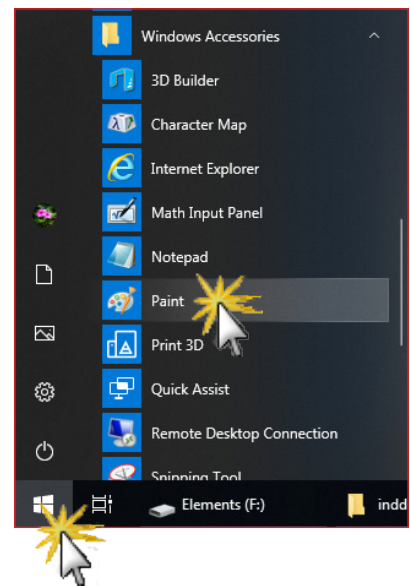


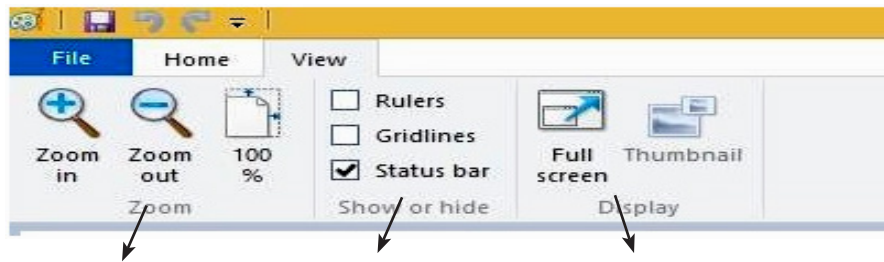
### Paint

It is one of the secondary programs of Windows which is called Accessories, in other words, when you install windows in your computer, paint program is included. Paint is used to edit photos.

### How to open Paint

- Click on Start
- Look for Windows Accessories and click on it
- Select Paint, click on it
- The program will open and looks like the figures below:-





To change the size of the front on-screen of drawing

To remove and view vertical and horizontal rulers of hidden lines and bars

To how showing drawing fonts

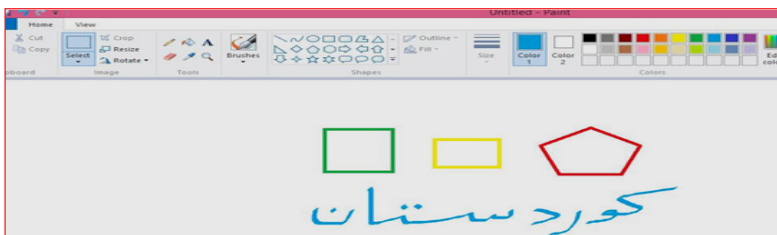
## Drawing /Painting

To form a shape on painting surface, click on Shape box, select a shape, and then select a color from color box, form the shape by **Drag & Drop process**.

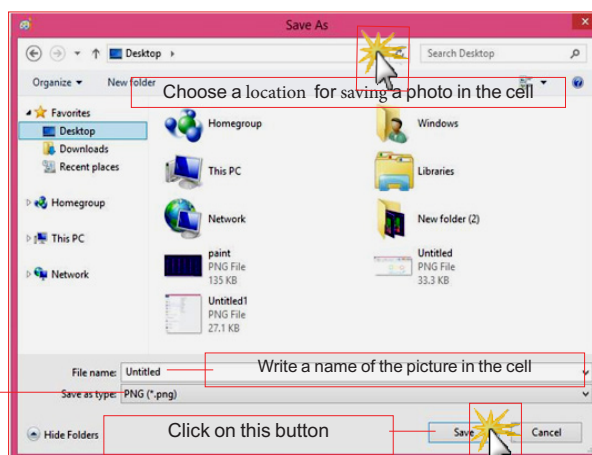
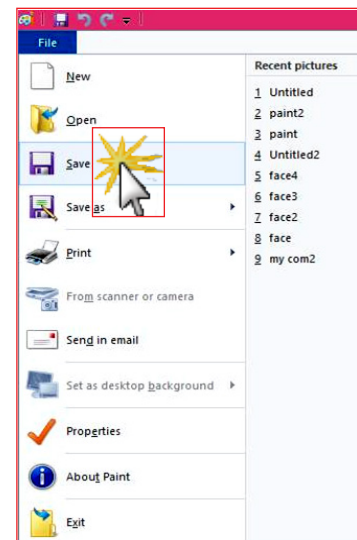
In Tools box, you can pick a pen or brush; use the tool to paint the shape with the color you desire. You can use **Drag & Drop** to accomplish the drawing as shown in the figure below.

## How to save a photo

- In Paint box, click on File command.
- Select Save or Save as command, as shown in the figure below.



- Execute Save command as shown in the figure.



To change file extension (file type)

Write a name of the picture in the cell

Click on this button

## Activity//

- Q.1. Draw Kurdistan flag, select right colors.
- Q.2. Explain saving photo procedures.

# 27 Lesson

## Microsoft WordPad

Lesson Aim

After this lesson, students should know:

How to use WordPad program



WordPad

### WordPad

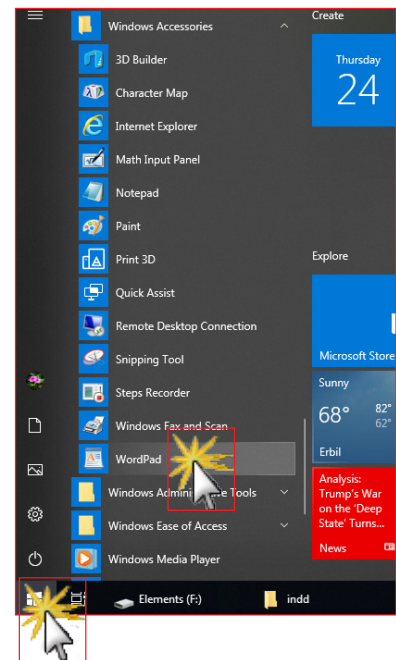


WordPad is another accessory program of Microsoft Windows, in other words; it will be installed during Windows installation. WordPad is used for writing texts and printing documents.

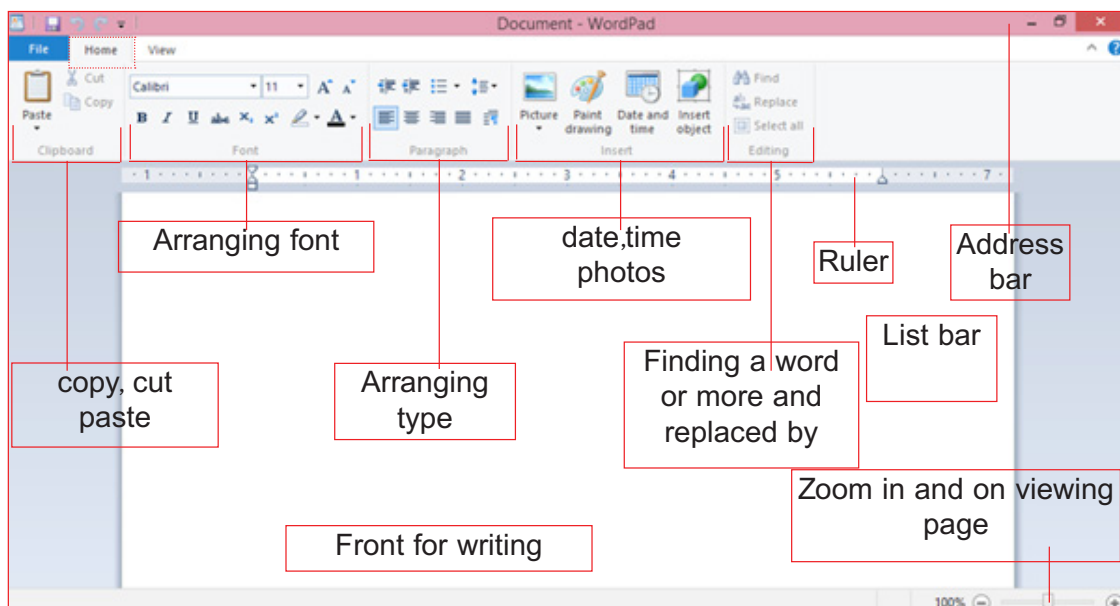
### How to open a WordPad program

- Click on **Start**
- In program list, look for Windows Accessories, once you find it
- click on **WordPad**.

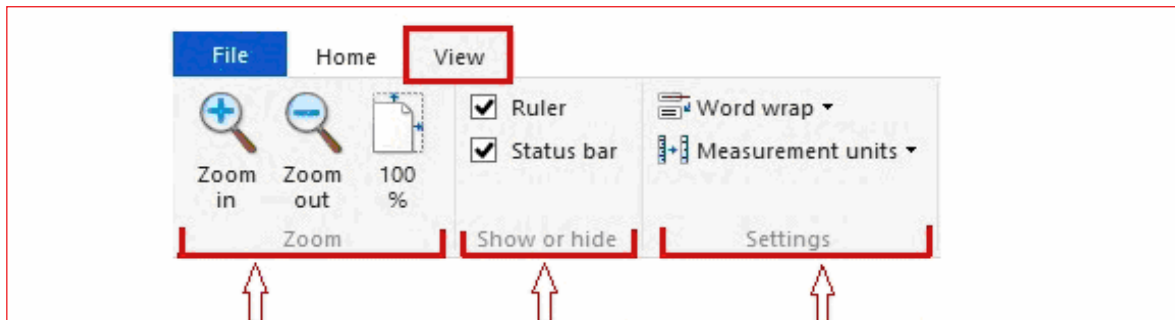
The program consists of two strips, **Home** and **View**. Both have a number of tools as shown in the figure below.



### Home tab



## View tab



To change the size viewing pages (to zoom in and out (of pages

To show and hide rulers and status bar

To select word wrap and measurement units of pages

### Activity//

Q. Write “Kurdistan” in a WordPad format, color the letters, the colors should represent Kurdistan flag colors.



# 28 Lesson

## Calculator

Lesson Aim

After this lesson, students should know:

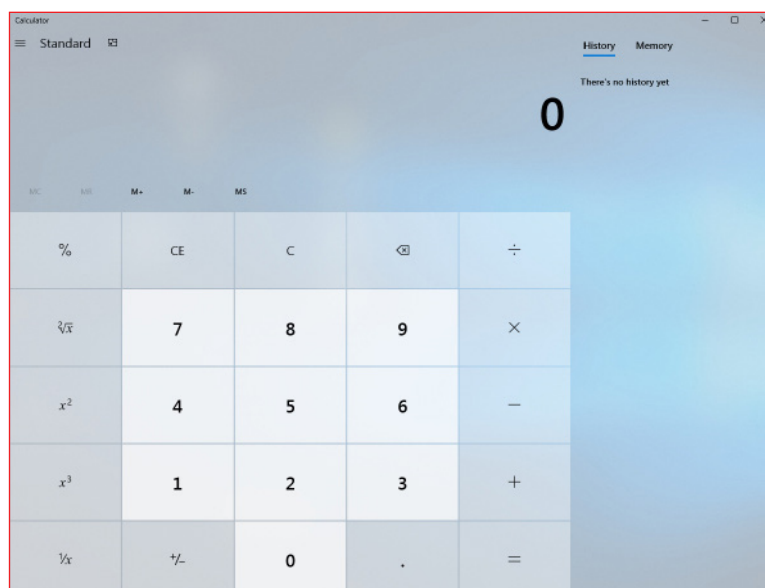
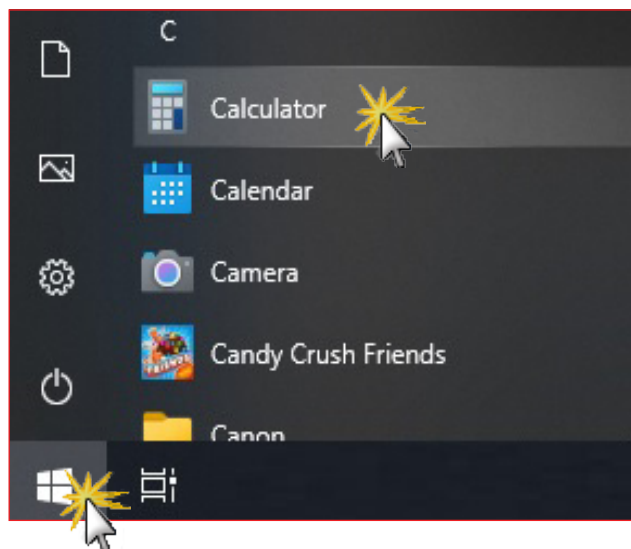
- Recognizing calculator program
- Recognizing basic parts of the calculator

### Calculator

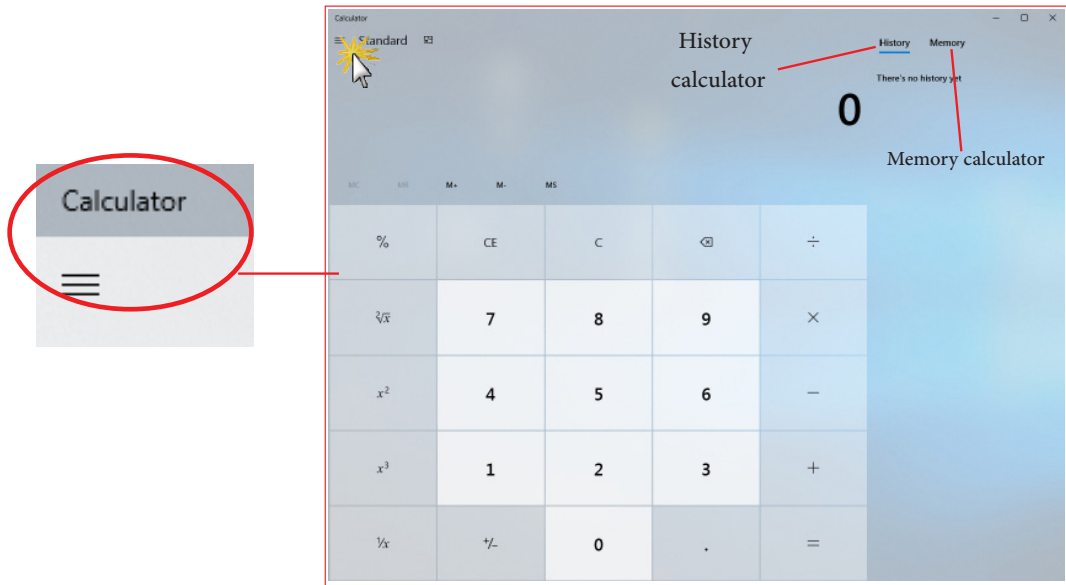
It is another accessory program of Microsoft Windows used for calculating and math.

### How to open and access calculator in Windows 10

- Click on Start, then select calculator. The program opens.



## Using Standard Calculator



### History History

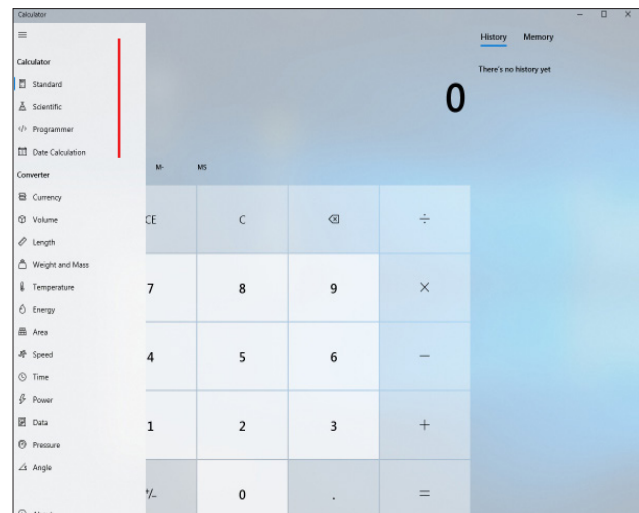
When you execute any calculating you get results, and can also return back to the numbers you dialed previously.

### Memory Memory

When you execute any calculating, you can save a copy of the numbers you used for the purpose of reuse, and you can track back to view the numbers you dialed previously.

### Navigation Calculator

This part is used to change the calculator type like (scientific, programming, regular or any other calculator) as shown in the figure.



## Activity//

Q. How can you change the calculator type?

# 29 Lesson

## General practice of Part Two

### Question // Choose the right answer:-

1- To install Windows 10 for any computer, the CPU should be at least no less than.....

( **4GHs , 3GHs , 2GHs , 1GHs** )

2- Android system supports .....

( **GPS , Wifi , SMS , all of these** )

3- Microsoft Corporation released first windows generation in .....

( **1981 , 1983 , 1985 , 1987** )

4- iOS system is a product of ..... company.

( **Microsoft , Apple , Samsung , all of these** )

5- The procedure of shutting down a computer and turning it automatically is called .....

( **Shut down , Sleep , Restart , Sign out** )

6- It is used to show the active window on the taskbar.


( **ALT +F4 , Win +Tab , AALT +TAB , Ctrl +TAB** )

7- If you want to install Windows 10 32 Bit on your computer, you need to have a RAM no less than .....

( **4GB , 3 GB , 2GB , 1 GB** )

8- The screen that pops up and indicates that the computer is ready for use is known as .....

( **Background , Start , Desktop , Screen Saver** )



9- The(  ) icon is used for.....

( **Search , Increase & decrease , preparations , activating** )

10- Saved data in computer is called.....

( **File , Folder , Uploaded data , all of these** )



- 
- 11- File extension represents .....
- ( **File size , File Type , File saving date , none of these** )
- 12- Icons can be organized according to.....
- ( **name , type , size ,all of these** )
- 13- (  ) icon locates on .....
- ( **Start , Desktop , Taskbar , none of these** )
- 14- The process of coping a file and moving it to another destination is.....
- ( **Copy , Cut , Paste , none of these** )
- 15- It is used to minimizing windows on the taskbar strip.
- ( **Close ,Minimize ,Restore Down , Maximize** )
- 16- Whe you first install Windows in your computer, there is/are .....
- language(s).
- ( **one ,two ,three ,four** )
- 17- (  ) icon is related to ..... in particular.
- ( **Paint , WordPad , Calculator , none of these** )
- 18- Some of programs are called Windows Accessories, this means, they are those programs that.....
- ( **will be installed after windows , will be installed with windows , will be installed before windows , none of these** )
- 19- Available system which was released after windows 10:
- ( **windows 98 , windows 11 , windows me , windows XP** )

**Law Number 6 of 2008**  
**Law on Prevention of Misuse of Communications Devices**  
**In Kurdistan Region- Iraq**

**Article 1**

Telephone calls, postal and electronic communications are private and inviolable.

**Article 2**

A person who misuses a cell phone or wired or wireless communication devices or the Internet or electronic post (email) for threatening, slandering, insulting or spreading fabricated news that provoke terror or leaking out conversations or publishing fixed or animated pictures or short text messages which are inconsistent with public morals or taking photos without permission or attribution of dishonorable matters or incitement to commit crimes or acts of debauchery or publishing information about individual's private life or family no matter how the information is obtained and even if it is true, if the information leakage and distribution would offend or harm him/her, shall be punished by imprisonment for a period of no less than six months and not exceeding five years and a fine of no less than one million Iraqi dinars and not more than five million Iraqi dinars, or one of these two penalties.

**Article 3**

A person who intentionally uses a cell phone or any wired or wireless communication devices or the Internet or electronic post (email) to disturb people other than those cases mentioned in article 2 of this Law, shall be punished by imprisonment for a period of not less than three months and not more than one year and a fine of not less than seven hundred and fifty thousand dinars and not more than three million dinars or one of these two penalties.

**Article 4**

If the committed acts in accordance with articles 1 and 2 of this law results in committing of a crime, the person who incites the crime is considered a partner in crime and shall be punished with the penalty prescribed for the committing the offence.

**Article 5:**

Committing one of the crimes mentioned in the articles 2 and 3 is an aggravating circumstance for the purpose of implementing the provisions of this law. If the perpetrator is a member of the armed forces or internal

security forces or who takes advantage of an official power or who is informed of the personal or family privacy of individuals by virtue of his/her job or profession and anyone who uses a device of others to commit one of the aforementioned offenses.

#### **Article 6 :**

Telecommunication companies operating in the Region shall perform the following:

1. Registration of the electronic mobile card, electronic communication devices and other mobile phones supplied by company prior to the implementation of this Law in the name of the person who is the owner and not subscribed within a period of six months from the effective date and cancellation of the card if the holder fails to visit the company during that period.
2. To submit any information relating to the subscription card and the subscriber to the court when necessary.
3. The company who is violating sections 1 and 2 of this article shall be liable to a fine of not less than 50 million dinars and not more than 100 million dinars.

#### **Article 7:**

The Council of Ministers and the relevant authorities shall implement the provisions of this Law.

#### **Article 8:**

This Law shall be implemented from the date of its issue and shall be published in the Official Gazette (Waqaa'ia Kurdistan).

**Masud Barzany**

**President of Kurdistan Region-Iraq**

- This law is issued in Erbil on 13th Jozardan 2708 (Kurdish calendar) opposite to 29th Jamadi al-awal 1429 of Hijri calendar and opposite to 3rd June 2008

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**WATER IS THE SOURCE OF LIFE  
THEREFORE PRESERVE IT**

