

# BASIC COMPUTER SKILLS NOTES

## 1Q. Write about various input/output devices of a Computer?

Ans:

### Input and Output Devices:

- An input/output device, often known as an IO device, is any hardware that allows a human operator or other systems to interface with a computer.
- An input/output (I/O) device is a piece of hardware that can take, output, or process data.
- It receives data as input and provides it to a computer, as well as sends computer data to storage media as a storage output.
- There are many IO Devices available, some of them are:

### Input Devices

#### Keyboard :

- The keyboard is the most frequent and widely used input device for entering data into a computer.
- Generally, keyboards come in two sizes: 84 keys or 101/102 keys, but currently keyboards with 104 keys or 108 keys are also available for Windows and the Internet.

#### Types of Keys:

- **Numeric Keys:** It is used to enter numeric data or move the cursor. It usually consists of a set of 17 keys.
- **Typing Keys:** The letter keys (A-Z) and number keys (0-9) are among these keys.
- **Control Keys:** These keys control the pointer and the screen. There are four directional arrow keys on it. Home, End, Insert, Alternate(Alt), Delete, Control(Ctrl), etc., and Escape are all control keys (Esc).
- **Special Keys:** Enter, Shift, Caps Lock, NumLk, Tab, etc., and Print Screen are among the special function keys on the keyboard.
- **Function Keys:** The 12 keys from F1 to F12 on the topmost row of the keyboard.

#### Mouse :

- The most common pointing device is the mouse. The mouse is used to move a little cursor across the screen while clicking and dragging.

#### Joystick

- A joystick is a pointing device that is used to move the cursor on a computer screen.
- It is primarily used in CAD (Computer-Aided Design) and playing video games on the computer.

## **Light Pen**

- A light pen is a type of pointing device that looks like a pen.
- It can be used to select a menu item or to draw on the monitor screen.
- When the tip of a light pen is moved across a monitor screen while the pen button is pushed, the photocell sensor element identifies the screen location and provides a signal to the CPU.

## **Scanner**

- A scanner is an input device that functions similarly to a photocopier.
- It's employed when there's information on paper that needs to be transferred to the computer's hard disc for subsequent manipulation.
- Scanner collects images from the source and converts them to a digital format that may be saved on a disc.

## **OCR**

- OCR stands for optical character recognition, and it is a device that reads printed text.
- OCR optically scans the text, character by character, turns it into a machine-readable code, and saves it to the system memory.

## **Bar Code Reader**

- A bar code reader is a device that reads data that is bar-coded
- A bar code reader scans a bar code image, converts it to an alphanumeric value, and then sends it to the computer to which it is connected.

## **Web Camera**

- A webcam is a computer-connected tiny digital video camera. It's also known as a web camera because it can take images and record video.

## **Output Devices:**

### **Monitor**

- Monitors, also known as Visual Display Units (VDUs), are a computer's primary output device.
- It creates images by arranging small dots, known as pixels, in a rectangular pattern.
- The two kinds of viewing screen used for monitors are:
  - (1) **Cathode-Ray Tube (CRT):** Pixels are minuscule visual elements that make up a CRT display. The higher the image quality or resolution, the smaller the pixels.
  - (2) **Flat-Panel Display Cathode-Ray Tube Monitor:**
- In comparison to the CRT, a flat-panel display is a type of video display with less volume, weight, and power consumption.

- Flat-panel displays are currently used in calculators, video games, monitors, laptop computers, and graphical displays.

## **Printer**

- Printers are output devices that allow you to print information on paper.
- There are two types of printers:
  - a) Impact Printer:**  
Characters are printed on the ribbon, which is subsequently crushed against the paper, in impact printers.
  - (b) Non-Impact Printers:**  
Characters are printed without the need for a ribbon in non-impact printers. Because these printers print a full page at a time, they're also known as Page Printers.

## **2Q. Discuss about different types of GUI based Operating System**

**Ans:**

### **Operating System:**

- An operating system (OS) is a program that acts as an interface between the system hardware and the user.
- It handles all the interactions between the software and the hardware.

### **Graphical User Interface (GUI)**

- GUI stands for Graphical User Interface.
- It uses icons, menus, etc. to interact with the user.
- The user can easily interact by just clicking these items.
- Therefore, it is very user friendly and there is no need to remember any commands.
- Examples of GUI based operating system are Microsoft Windows, macOS, etc.

### **Types of Operating System (GUI based)**

- The different types of operating system on the basis of GUI are as follows:

#### **1. Microsoft Windows:**

- Microsoft Windows is one of the most common graphical OS.
- It is developed and marketed by Microsoft. Its common name is windows or win. The current version of Microsoft Windows is Windows 10.
- It has several earlier versions like Windows XP, Windows 8, Windows 7, etc.
- The first version of Microsoft Windows was released in 1985.

#### **2. Linux**

- Linux is a popular operating system.
- It is not a part of any particular firm or organization. Rather, it was developed by a programmer Linus Torvalds in 1991.

- It is an open-source operating system.
- Today, LINUX is run in many organizations, private offices, on mobiles, supercomputers, over the internet, etc.
- It contains a variety of user interfaces like GNOME, KDE, Mate, **Cinnamon**, etc.
- In addition to this, it has several versions of distributions as follows UBUNTU, DEBIAN, SOLAS, LINUX MINT, etc.

### 3. Android

- It is one of the most common versions of the operating system today. It is basically used on mobile phones and tablets. Most versions of it are an open-source OS.

### 4. Apple iOS

- After android, it is one of the most popular OS. It is designed to run on Apple devices such as iPhones, iPad tablets, etc.

### 5. Apple macOS

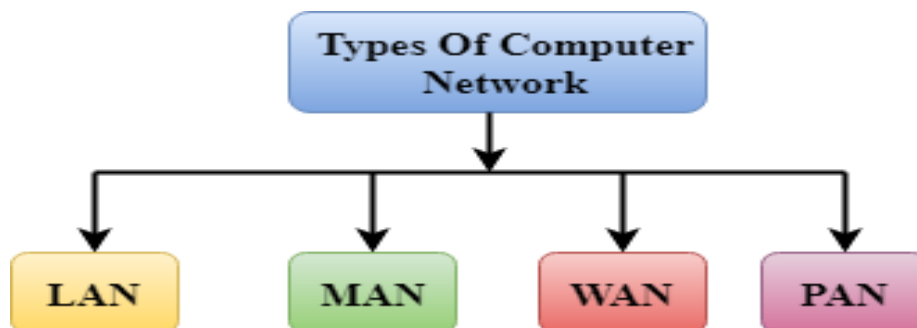
- It is the operating system used in Apple laptops and Apple desktops. Moreover, Its most popular features are **Siri** and **FaceTime**.

## 3Q. Write about different type of Networks

### Computer Network Types

A computer network is a group of computers linked to each other that enables the computer to communicate with another computer and share their resources, data, and applications.

A computer network can be categorized by their size. A **computer network** is mainly of **four types**:



- LAN(Local Area Network)
- PAN(Personal Area Network)

- MAN(Metropolitan Area Network)
- WAN(Wide Area Network)

### **LAN(Local Area Network)**

- Local Area Network is a group of computers connected to each other in a small area such as building, office.
- LAN is used for connecting two or more personal computers through a communication medium such as twisted pair, coaxial cable, etc.
- It is less costly as it is built with inexpensive hardware such as hubs, network adapters, and ethernet cables.
- The data is transferred at an extremely faster rate in Local Area Network.
- Local Area Network provides higher security.

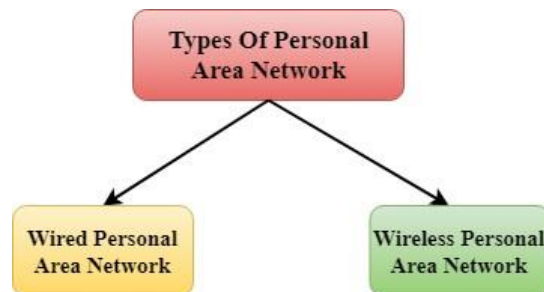


### **PAN(Personal Area Network)**

- Personal Area Network is a network arranged within an individual person, typically within a range of 10 meters.
- Personal Area Network is used for connecting the computer devices of personal use is known as Personal Area Network.
- Personal Area Network covers an area of **30 feet**.
- Personal computer devices that are used to develop the personal area network are the laptop, mobile phones, media player and play stations.



There are two types of Personal Area Network:



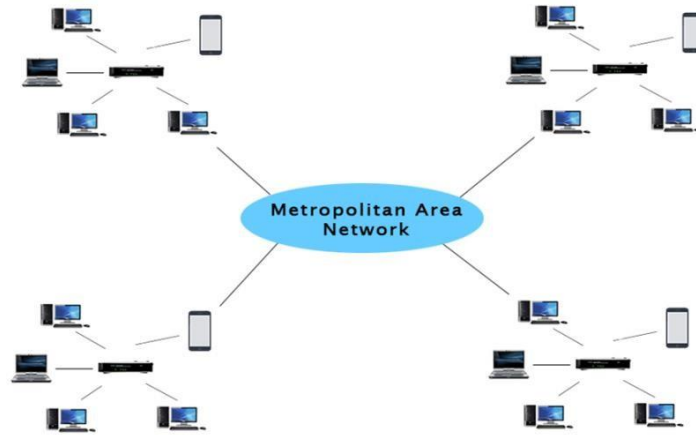
- Wired Personal Area Network
- Wireless Personal Area Network

**Wireless Personal Area Network:** Wireless Personal Area Network is developed by simply using wireless technologies such as WiFi, Bluetooth. It is a low range network.

**Wired Personal Area Network:** Wired Personal Area Network is created by using the USB.

### **MAN(Metropolitan Area Network)**

- A metropolitan area network is a network that covers a larger geographic area by interconnecting a different LAN to form a larger network.
- Government agencies use MAN to connect to the citizens and private industries.
- In MAN, various LANs are connected to each other through a telephone exchange line.
- It has a higher range than Local Area Network(LAN).

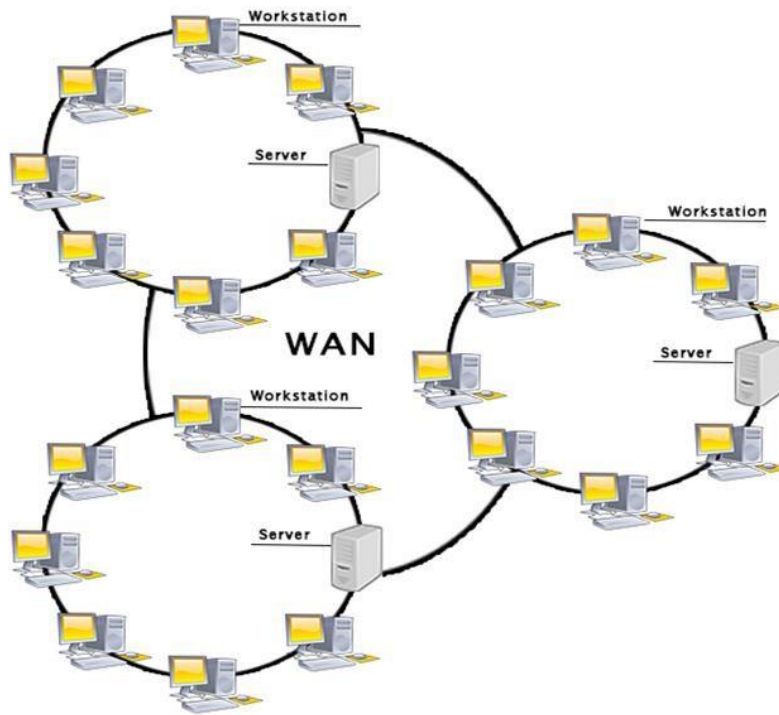


### **Uses Of Metropolitan Area Network:**

- MAN is used in communication between the banks in a city.
- It can be used in an Airline Reservation.
- It can be used in a college within a city.
- It can also be used for communication in the military.

### **WAN(Wide Area Network)**

- A Wide Area Network is a network that extends over a large geographical area such as states or countries.
- A Wide Area Network is quite bigger network than the LAN.
- A Wide Area Network is not limited to a single location, but it spans over a large geographical area through a telephone line, fibre optic cable or satellite links.
- The internet is one of the biggest WAN in the world.
- A Wide Area Network is widely used in the field of Business, government, and education.



### Examples Of Wide Area Network:

- **Mobile Broadband:** A 4G network is widely used across a region or country.
- **Last mile:** A telecom company is used to provide the internet services to the customers in hundreds of cities by connecting their home with fiber.
- **Private network:** A bank provides a private network that connects the 44 offices. This network is made by using the telephone leased line provided by the telecom company.

### Advantages Of Wide Area Network:

Following are the advantages of the Wide Area Network:

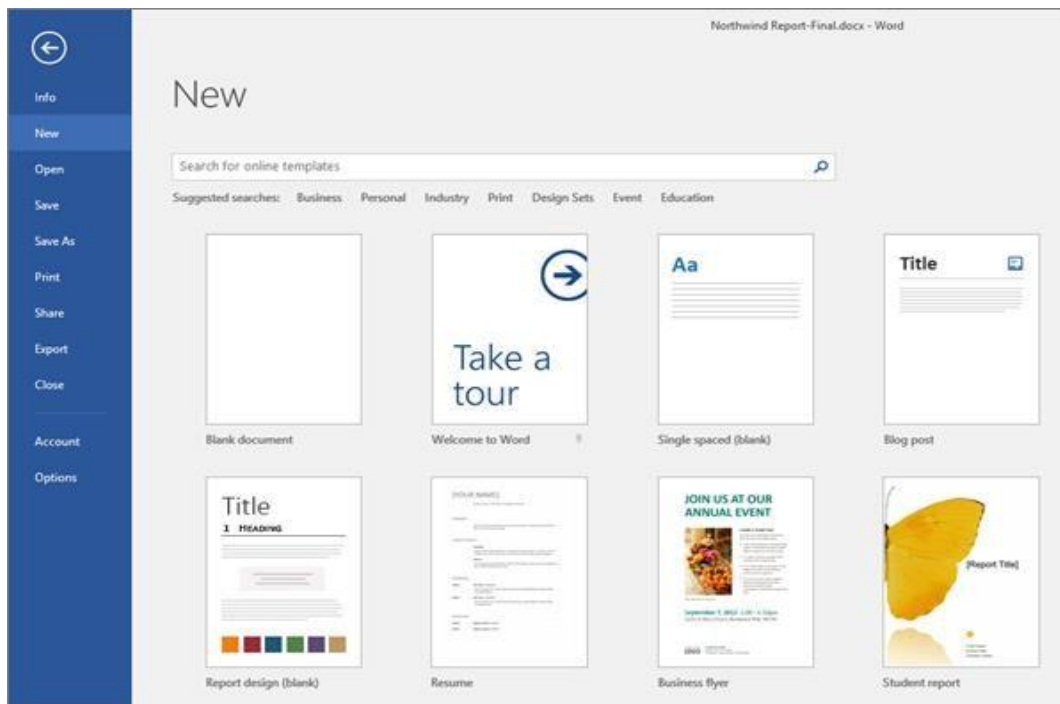
- **Geographical area:** A Wide Area Network provides a large geographical area.
- **Centralized data:** In case of WAN network, data is centralized. Therefore, we do not need to buy the emails, files or back up servers.



- **Get updated files:** Software companies work on the live server. Therefore, the programmers get the updated files within seconds.
- **Exchange messages:** In a WAN network, messages are transmitted fast. The web application like Facebook, Whatsapp, Skype allows you to communicate with friends.
- **Sharing of software and resources:** In WAN network, we can share the software and other resources like a hard drive, RAM.
- **Global business:** We can do the business over the internet globally.
- **High bandwidth:** If we use the leased lines for our company then this gives the high bandwidth. The high bandwidth increases the data transfer rate which in turn increases the productivity of our company.

#### **4Q . Write steps to create , format text and save a document in MS Word**

- To create a document, simply open Word, select a blank document or template, and start typing.
- Word offers many professionally designed templates to help you create letters, resumes, reports, and more.
- Create a blank document



## Add and format text

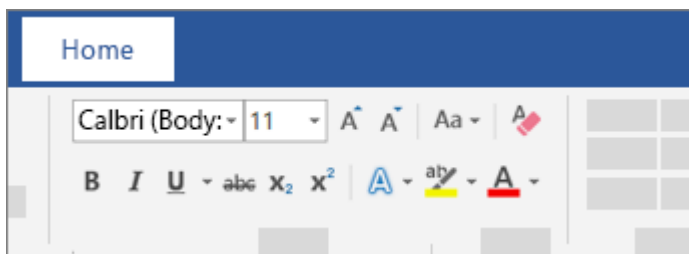
- To add text, place the cursor where you want and start typing.

## Format text


1. Select the text you want to format.

To select a single word, double-click it. To select a line of text, click to the left of it.

2. Select an option to change the font, font size, font color, or make the text bold, italic, or underline.



## Copy formatting

1. Select the text with the formatting you want to copy.
2. Click **Format Painter** , and then select the text you want to copy the formatting to.

## **Save your document**

1. Click **FILE** > **Save**, pick or browse to a folder, type a name for your document in the File name box, and click **Save**.
2. Save your work as you go - hit Ctrl+S often.
3. To print, click the **FILE** tab, and then click **Print**.

## **5Q. Explain steps to Write an Email With an Attachment**

- An email attachment is a file that one person sends to another with an accompanying email.
- The attachment can have different formats and sizes, with the most typical attachments being large text files, various types of documents, spreadsheets, scanned files, forms, pictures and videos.
- Consider the following five steps when composing and sending an email containing an attachment:

### **1. Determine what files you wish to send**

- Before writing the email, you should know exactly what file you are about to send and where it is located on your device's hard drive or memory drive.

### **2. Write the email's subject line**

- The next step is composing the email's subject line. As many potential recipients tend to disregard emails with attachments unless they know what the attached files are, the email's subject should reflect the fact that it contains one or more attached files and provide information regarding what they are.

### **3. Compose the email's body**

- If the attachments are the only reason you need to send a message, the email's body can simply be a brief description of the attached files.
- If the attached files are only a part of what the email aims to transmit, they need to be mentioned somewhere in the body, ideally with a short sentence that specifies what they are.

- Sending an email with attachments and no text is not recommended, as the recipient or their email provider may confuse them with spam.

#### **4. Attach the files**

- After composing the email, the final step before sending it is attaching the necessary file or files.

#### **5. Review and send the email**

- Once the email's subject and body are written and the files are attached, you can do a quick proofread and send the email to the recipient.