



**Write the notes don't draw the  
Pictures  
S2  
INTRODUCTION TO COMPUTERS  
KEYBOARD NAVIGATION**



# KEY BOARD NAVIGATION

## MOUSE

- A mouse is computer hardware input pointing device that is rolled about on a desktop to direct a pointer on a computer's display screen.
- It also complements the keyboard as regards input of data



## USES OF A MOUSE

- a) It is used to select and move around items displayed on the screen.
- b) It is used to start tasks by positioning the pointer and selecting items.
- c) It is used to create simple graphics.



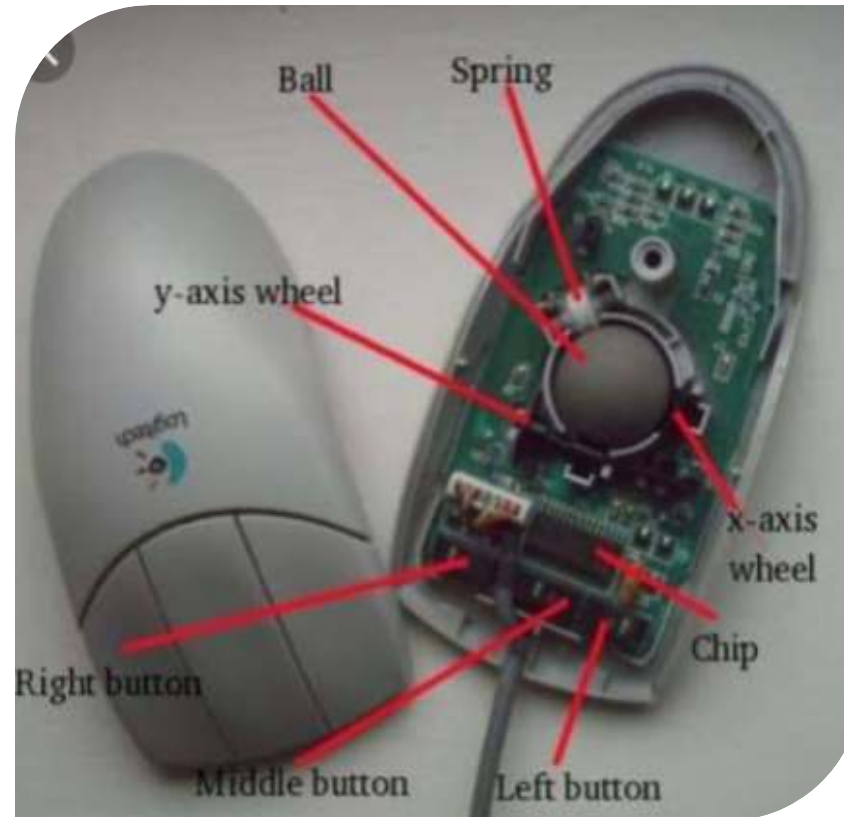
## TYPES OF MICE

### Mechanical mouse

- A mechanical mouse has a rubber or metal ball on its underside.
- When the ball is rolled, it moves either the vertical (y-axis wheel) or horizontal roller (x-axis wheel) hence leading to the motion of the pointer on the screen.



# Mechanical mouse illustration





# Optical mouse

- Is a computer mouse which uses a light emitting diode and a light detector to detect movement relative to the surface.
- An optical mouse is more precise/accurate than a mechanical mouse and does not require cleaning as does a mechanical mouse, but is more expensive.



# ***Optical mouse -illustration***





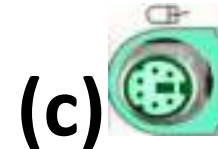
# CONNECTING A MOUSE TO A COMPUTER

- Many types connect with a cable to the system unit through a;

(a) Serial port



(b) USB port



(c) PS/2 port.

- Other mice are connected by use wireless technology and they are called **wireless mouse/ cordless mouse**.



*Wireless mouse with its receiver*

- A **wireless mouse (or cordless mouse)** is a battery-powered device that transmits data using wireless technology, such as radio waves or infrared light waves.





# TERMS USED WHILE USING A MOUSE

- **Point** .It is to move a pointer to a desired spot on the screen such as over a particular **object** or **word**.
- **Click** .It is to press and quick release the left mouse button. A click often selects an item on screen
- **Double click** .It is to press and release the left mouse button twice as quickly as possible. Double click often opens a document or it starts a program.



- **Drag** .It is to press and hold down the left mouse button while moving the pointer to another location on the screen.
- **Drop** .It is to release the mouse button after dragging. Dragging and dropping makes it easy to move an item on the screen.
- **Right click** .It is to press the right mouse button and release which brings up popup menu with options to choose from.
- **Scrolling** .Involves rolling the wheel forward or backward that scrolls up or down a few lines.



## **ADVANTAGES OF USING A MOUSE**

- a) A mouse is user friendly for computer beginners.
- b) A mouse is easy and convenient to use with a graphical user interface.
- c) Using a mouse to select items or move to a particular position on the screen is faster than using a keyboard.
- d) A mouse can be operated by one hand.



## **DISADVANTAGES OF USING A MOUSE**

- a) It is not easy and convenient to input text with a mouse.
- b) Issuing commands with a mouse is slower than by using a keyboard especially to beginners.
- c) It needs some practice in order to control a mouse properly.
- d) A mouse is not accurate enough for drawings that require high precision.
- e) A mouse usually requires a flat surface to operate.
- f) A mouse needs more desk space to operate when compared with a trackball or a touchpad.



## **PROBLEMS THAT AFFECT THE PROPER FUNCTIONING OF A MOUSE**

- 1) Dirt disrupts motion of ball.
- 2) Nature of the roll surface.
- 3) Disconnection of the chord in case the mouse falls on humps.



# TRACKBALL MOUSE

- Is a pointing device consisting of a ball held by a socket containing sensors to detect a rotation of the ball about two axes like an upside-down mouse with an exposed protruding ball.





## HOW TRACKBALL WORKS

- The user rolls the ball to position the on-screen pointer using their thumb, fingers or commonly the palm of the hand while using the fingertips to press the mouse button



## TOUCH PAD

- A touch pad is a flat rectangular device that has weak electric fields to sense the touch as the users moves the finger tips.
- It used to control the pointer with a finger. The Cursor follows the movement of the finger on the pad. You can click by tapping the pad surface.





# ***TOUCH PAD ILLUSTRATION***





## POINTING STICK

- A pointing stick is a pressure-sensitive pointing device shaped like a pencil eraser.
- Because of its small size, the pointing stick is conveniently positioned between the keys on the keyboard.
- To move the pointer using a pointing stick, you push the pointing stick with your finger.
- The pointer on the screen moves in the direction that you push the pointing stick.



# ***POINTING STICK ILLUSTRATION***





# LIGHT PEN

- A light pen is a computer input device in the form of a light-sensitive wand used in conjunction with a computer's CRT display/monitor
- It allows the user to point to displayed objects or draw on the screen in a similar way to a touch screen but with greater positional accuracy



## TOUCH SCREEN

- A touch screen is an electronic visual display that can detect the presence and location of a touch within the display area. Touch screens can also sense other passive objects, such as a pen.
- Users can interact with these devices by touching areas of the screen. You touch words, pictures, numbers, letter, pointers or special locations identified on the screen.



## USES OF A TOUCH SCREEN

- a) Touch screens are often used for information kiosks located in department.
- b) Touch screens are also used for ATM machines to allow easy access of bank accounts.
- c) Touch screens are also used in some places like stores, hotels, air ports, museums allow access.



## ADVANTAGES OF TOUCH SCREEN

- a) No extra peripherals are needed except the monitor.
- b) Touch screen allows easy access to commands, which are usually identified by **words, symbols or images/icons** on the screen.
- c) No computer literacy is required.
- d) They are easy to use and can convey information quickly.



## KEYBOARD

- Refers to a Computer hardware input text hardware device that is used to type and enter instructions into a computer.
- It looks like the keyboard of an ordinary typewriter but with some special keys like:
  - The control key (CTRL),
  - The Alter key (ALT),
  - The Escape key (ESC),
  - The Arrow keys, and
  - The function keys ranging from F1 to F12 and each key has its function.





## KEYBOARD LAYOUTS

- The arrangement of the English language keyboard keys was modeled after the **QWERTY type writer** keyboard. Its name was derived from the first six letters at the top of the keyboard



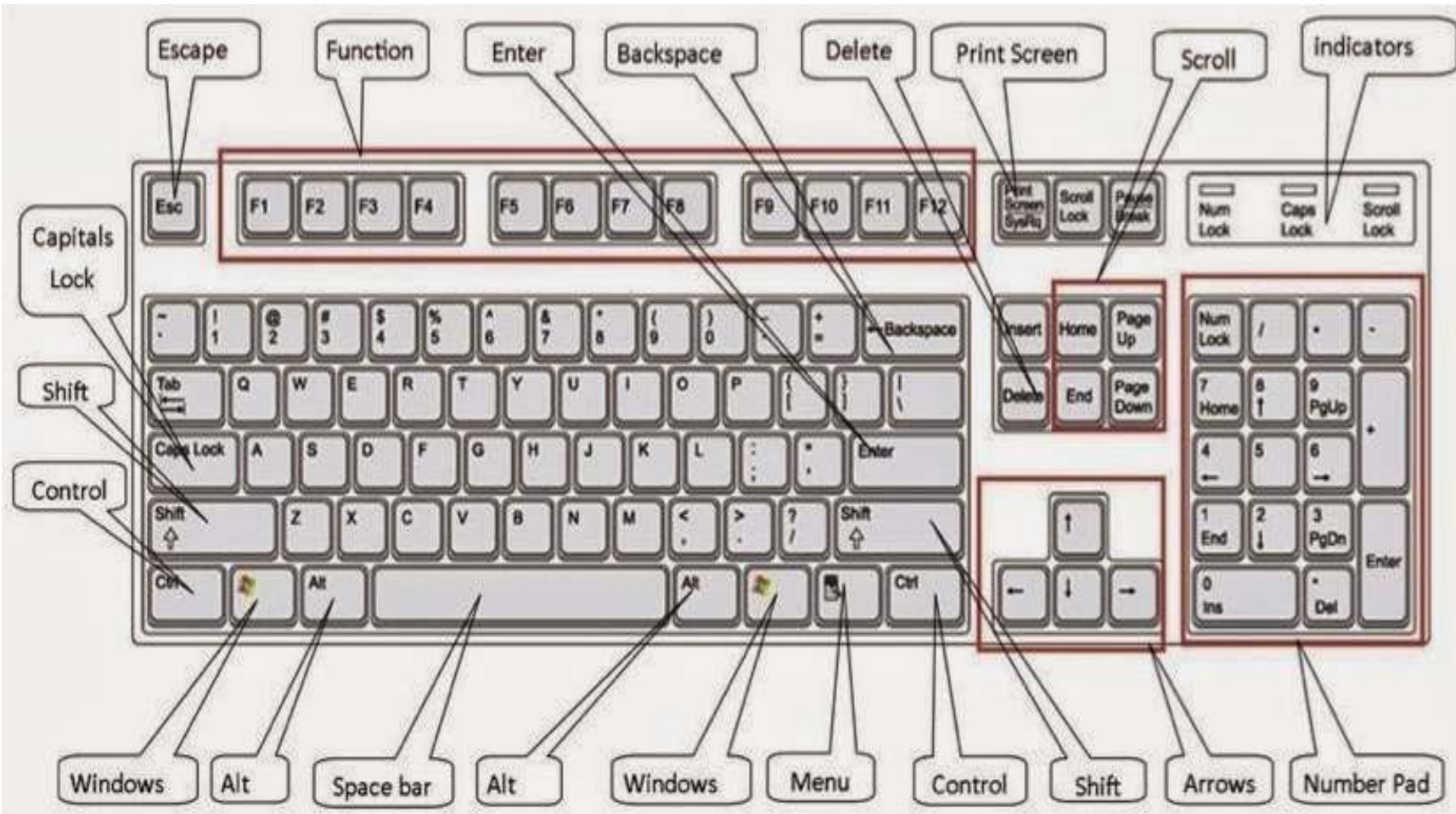


## TYPES OF KEYBOARDS

- 82 key keyboard
- 102 keyboard
- 102/3 enhanced keyboard (the most commonly used type today)
- 105 keyboard (developed from 102/3 enhanced keyboard)



# PARTS OF A KEYBOARD





## Functional keys

- These are keys found across the top row of the keyboard. Each key is composed of letter **F** and a **number ranging from 1 to 12**. Each functional key performs a specific operation based upon the software being used.



*Function keys*



## Numeric keypad

- This is an extra section to the right of the keyboard. This is laid out like keys on a calculator.

It has two purposes, when the num keys is off, The **numeric keys** may be used as **arrow keys** for cursor movements and for other purposes such as; **Page up (pg up)**, **page down (pg dn)**, **Home**, and **End**





## Typing area(Alphanumeric Keypad)

This consists of the letters of alphabets, numbers, punctuations marks and other basic keys like;

- ❖ **Shift key Tab key**
  - ❖ **Caps Lock**
  - ❖ **Num Lock**
  - ❖ **Enter key**
- **Control key**
  - **Alt key**
  - **Backspace key**
  - **Delete key**

etc.

- Most of the typing is done with keypad.



## FUNCTIONS OF SOME SELECTED KEYS ON THE KEYBOARD

**Backspace Key.** Deletes the characters to the left of the cursor (or insertion point) and moves the cursor to that position. **Or Ctrl+ Backspace** key removes the whole word to the left of the cursor.

**Caps Lock Key.** A toggle key that, when activated, causes all alphabetic characters to be uppercase. To facilitate continuous typing in upper case when activated.



❖ **Delete Key** To deletes a character, space, on the right of the cursor position. Ctrl+Del removes the whole word to the right of the cursor position.

❖ **Space bar**

- To create space .
- Pausing music in some music programmes e.g. Power DVD,
- Playing games e.g. in pinball





## Shift Key.

- Activates second function of different keys.
- Activates sticky keys
- Modifies function Keys e.g. .Shift + F1 = F13 and Shift + F2=F14.

## Esc Key

- Short for Escape, this key is used to send special codes to devices and to exit (or escape) from programs and tasks.

## Arrow Keys

- Enable you to move the cursor (or insertion point) up, down, right, or left.
- Used in conjunction with the Shift key to highlight text.



## **USES OF A KEYBOARD**

- a) A keyboard is used for a wide range of tasks such as;
- b) Entering data from original paper documents e.g. entering raw marks in a computer.
- c) Typing letters, memos, reports and other documents using word processing software.
- d) Used to issue commands e.g. CTRL + S.



# ADVANTAGES & DISADVANTAGES OF A KEYBOARD

## ADVANTAGES

- a) Most computers come with a keyboard supplied
- b) People are used to using keyboards to enter data, they need very little training
- c) A skilled typist can enter data very quickly
- d) Specialist keyboards are available e.g. ergonomic, gaming keyboards

## DISADVANTAGES

- a) It is easy to make mistakes when typing in data
- b) If you can't touch type, it can be time consuming to enter data
- c) Keyboards are not suitable for creating diagrams
- d) Disabled people often find keyboards difficult to use
- e) Excessive use can lead to health problems such as repetitive strain injury (R.S.I.)



## VOICE RECOGNITION EQUIPMENT/VRE

- Voice recognition is the ability of the computer to react to someone speaking.
- Voice recognition software will take in the voice signal being picked up by a microphone and sound card, and then process it in order to extract commands. **For instance**, you can use your voice to;
- **Start programs.**
- **Open menus and other objects on the screen.**
- **Dictate text document.**



- What you can do with keyboard and mouse can be done with only your voice.
- **NOTE:** Voice recognition programs don't actually understand speech but they only recognize vocabulary of reprogrammed words.



## ADVANTAGES AND DISADVANTAGES OF VOICE RECOGNITION SYSTEMS

### MERITS

- a) No typing of data is necessary.
- b) The system can be used by people whose hands are occupied or disabled.
- c) Voice recognition systems are also ideal for blind or visually impaired users.
- d) Dictating text is faster than typing.

### DEMERITS

- a) Error rate is still high at the moment.
- b) Recognition of words is slow.
- c) Words sound the same e.g. see and sea can't be distinguished.
- d) The system is not suitable for use in noisy places.
- e) The software must be trained to recognize specialists of technical words.
- f) Many people find it difficult to speak in writing style.



## SOME SHORTCUT KEYS AND THEIR FUNCTIONS

- **F1:** Universal Help in almost every Windows program.
- **Ctrl + A:** Select all text.
- **Ctrl + X:** Cut
- **Shift + Del:** Cut selected item.
- **Ctrl + C:** Copy selected item.
- **Ctrl + Ins:** Copy selected item.
- **Ctrl + V:** Paste selected item.
- **Shift + Ins:** Paste.
- **Home:** Goes to beginning of current line.
- **Ctrl + Home:** Goes to beginning of document.



- **End:** Goes to end of current line.
- **Ctrl + End:** Goes to end of document.
- **Ctrl + Left arrow:** Moves one word to the left at a time.
- **Ctrl + Right arrow:** Moves one word to the right at a time.
- **Ctrl + B:** Bold highlighted selection
- **Ctrl + P:** Open the print window.
- **Ctrl + F:** Open find box.
- **Ctrl + I:** Italic highlighted selection.
- **Ctrl + U:** Underline highlighted selection.
- **Ctrl + V:** Paste.





- **Ctrl + Y:** Redo the last action performed.
- **Ctrl + Z:** Undo last action.
- **Ctrl + Del:** Deletes word to right of cursor.
- **Ctrl + Backspace:** Deletes word to left of cursor.
- **Ctrl + D** → Delete the selected item and move it to the Recycle Bin.
- **Ctrl + Esc** → Open the Start Menu.
- **Ctrl + Shift** → Switch the keyboard layout.
- **Ctrl + Shift + Esc** → Open Task Manager.
- **Ctrl + F4** → Close the active window.



- There are so many other short cut keys endeavor always to learn more and more

**END**