

COMPUTER BASICS

INTRODUCTION TO COMPUTER

Computer is an electronic machine. It runs on electricity. It takes inputs from you. It uses some program (set of instructions) to process these inputs. Finally it delivers output as per your requirement. It can also store your data. You can retrieve this data later on.

Computer follows "Input-Process-Output" Cycle.



PARTS OF COMPUTER AND THEIR FUNCTIONALITY

Computer comprises of different parts which are connected with each other. Each part of Computer plays very important role whenever we use a computer.

Main parts of computer are



Monitor/LCD
It displays whatever you type or draw on computer.



Central Processing Unit It controls the functioning of other components.



Keyboard
It is set of typewriter like which types the text through keys.



Mouse
It is used to point items and select the text on the screen.



Speaker
It is used for audio output from the computer.



Printer
It is used to take printout on the paper.

STARTING AND SHUTTING DOWN THE COMPUTER

To start a computer we should follow the following steps
Plug in your computer and all peripheral (all devices attached).
Switch On your UPS which provide uninterrupted power supply to your computer.
Press power button of your CPU then computer will be boot up.

To Shutdown your computer

To turn off your computer click on the start button.
Then in the lower right corner of the start button click on the shutdown.
When you click shutdown computer will ask to close all programs you opened and close them.

Computer Room Etiquettes

Remove your shoes before entering the Computer Room because your shoes contain dust which can be harmful for any electronic equipment including computer.



Open the door of Computer room slowly and enter it calmly and quietly.

Never touch the computer parts and attached cables as they can be harmful for both (Computer & you).



Do not push each other while standing near a computer.

Sit down calmly and quietly while seeing a demo on the computer. Ask questions whenever you are given a chance for it.



Never carry magnets inside the computer room.



Keyboard of your computer should be handled gently.



Please do not eat anything such as chewing gum, bubble gum, and other sticky things inside the computer room.



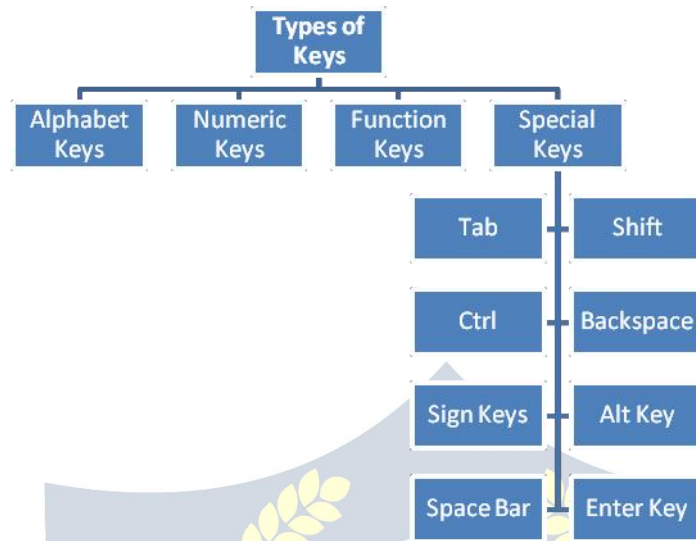
Never keep anything such as books, notebooks, pencil boxes on the monitor, keyboard, or CPU.

Always use soft and dry clothes to clean the various parts of a computer.

Always shut down your computer properly and cover it with clean clothes before leaving the computer room.

Identify the keys on a keyboard - different keys on a keyboard

Keyboard looks like a typewriter. It is made up of different types of keys. These keys are small buttons on the keyboard. Alphabets in Capital letters, numbers, some special characters, are printed on the keys whenever we press the keys whatever is written on the keys will be printed on the screen.



Some of important keys

Alphabetical Keys: A, B, C, ..., Z are alphabetical keys. There are 26 alphabetical keys on the keyboard. Whenever we press these keys associated alphabet in small case is written in the screen.



Numerical Keys: 0, 1, 2, ..., 9 are numerical keys. There are 10 numerical keys on the keyboard.



Special Keys: There are various special keys

Caps Lock: – This key is used whenever we want to type the entire sentence, whole word and letter in a capital. To use this key press it once and see the yellow light on the right corner of keyboard where the Caps Lock is written on a button. If the light is on it means the Caps Lock is active. If we want to write in small case then press this button again the Caps Lock is off now.

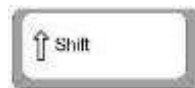


EnterKey:-Thiskeyisused tofinish a lineandmoveto a nextnewlineonthe page.

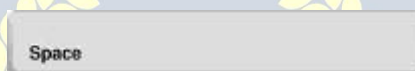
Enterkeyispressedaftertypingeverycommand.TherearetwoEnterkeyon the keyboard.



Shift Key:-Shift key is present on both sides of the keyboard. The Shift key is modifierkeyonakeyboard.Theshiftkey isamodifierkeyonakeyboard,used to type capital letters and other alternate "upper" characters. There are typically two shift keys, on the left and right sides of the row below the home row



SpaceBar:-Thiskeyisusedtoinsertthespacebetweentwoword.Itisthe longest key on the keyboard.



Backspace:-isusedtodeleteanycharacterbeforethecurrentpositionofthe cursor.



ArrowKeys:-isusedtomovethecursorpositioninalldirections(left,right,up and down) in the page.



IdentifythebuttonsofMouse-descriptionofdifferenbuttonsonthe mouse.



Left mouse button is used to point to any menu, tool, icon and selection of text, face, surface and we can select multiple entities by this button.

Wheel is used to scroll the page up and down.

Right mouse button is used to invoke the shortcut menu.

Do's and Don'ts of Computer Lab

Remove your shoes before entering in the computer Lab.

Wash and dry your hands before touching computer parts. No

Food and Drink is allowed in the Computer Lab.

Work Quietly in the Computer Lab.

Do not change any computer setting.

Do not install or download any software or modify or delete any system files on any lab computers.

Search through internet must remain for academic purposes. Only visit the approved Websites through Internet.

Operate the computer equipment properly.

Strengths and LIMITATIONS of Computer

Strengths

Fast-Computers are much faster as compared to human being.

Accurate – Computer can perform all calculation accurately.

Store Large amount of data-We can store large amount of data in the computer.

Reliability-Computers are more reliable than human.

Versatile-Computer can perform variety of operations on the same data set.

Limitations

No IQ level

Works on electricity

Cannot think by itself.

Unable to take decision.

Let us do practice now

TYPE-I (Short answers based questions)

Write down the function of the following keys

Caps Lock Key (ii) Space bar key

What is the purpose of scroll button of the mouse?

Why should one take some precautions in the Computer room?

Draw/paste the picture of a Computer.

How can a computer be used for

(i) Education (ii) Medical?

Write down any two things you should do in the Computer room and also you should not do.

State what would happen if

We clean the computer with a wet cloth.

We play with wires and clothes in the computer room. We

wear shoes in the computer room.

We are harsh in handling the keyboard.

We do not cover the computer with clean clothes when not using them. TYPE-

II (Fill in the blanks)

Computer has parts.

Monitor looks like a.

The computer is a machine.

In schools, computer is used to teach subjects.

Versatile means.

Type-III (True or False)

Computer can solve only mathematical problems. (True/False)

Mouse is used for clicking. (True/False)

Monitor is used for displaying output. (True/False)

The backspace key is used to insert characters. (True/False)

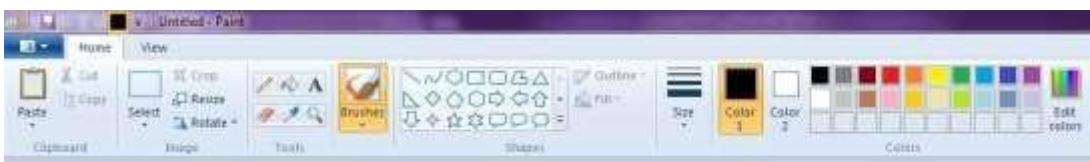
Computer is a very slow machine. (True/False)

PAINTBRUSH

Paintbrush is used for drawing, coloring and editing the pictures. We can use Paint Brush like a digital sketchpad to make simple pictures. Files created in PaintBrush are saved as bitmap files. The default file extension of a bitmap file is .bmp.

Steps To open PaintBrush

Click Start -> All Programs -> Accessories -> Paint.



Options on Home Tab- Paste, Cut, Copy, Select, Crop, Resize, Rotate, Brushes, Shapes, Line, Color options

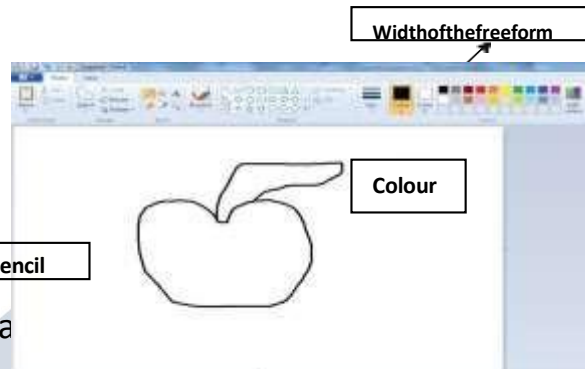


This tool draw a free form line with the selected line width. To

draw a free form line.

Click the pencil tool in the tool box.
Select a colour from the color box.
You can change the thickness of the line by selecting the lines given in the line patterns.

Using pencil

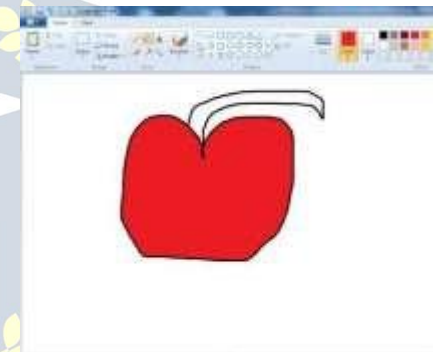


Fill With color- This tool help to fill an area



Fill with color

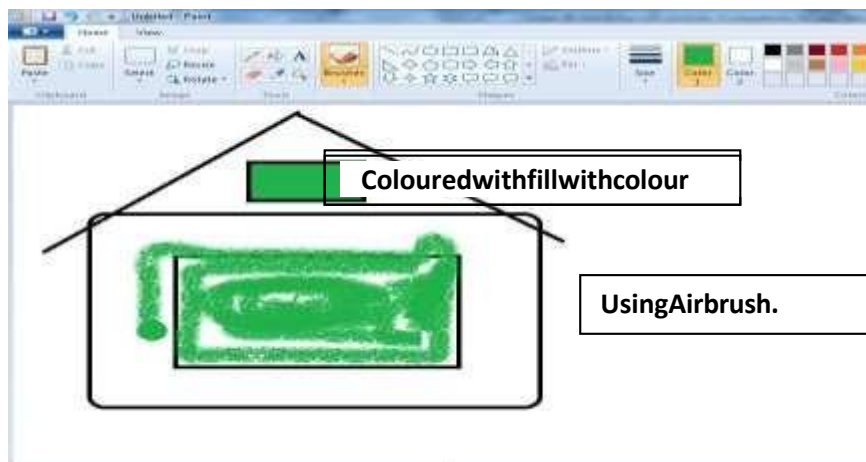
Select a fill with color tool from toolbox.
Choose a color you want to fill in a picture from colour palette.
Click fill with colour tool in the image.



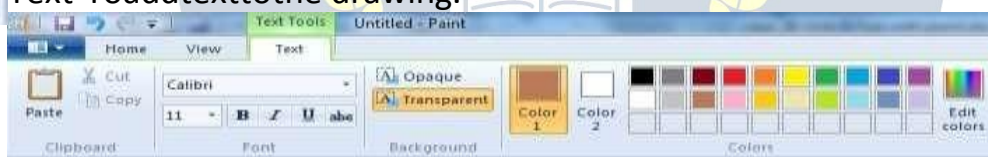
Pick Color- By this tool, Color is selected from one part of the object and can be used to color other areas. Left click is used for back color and right click for foreground color. Before selecting pick color- Back and front color After selecting Pick color- Back and front color



Brushes-This tool paints the image with various kinds of brushes available in toolbox.



A Text- To add text to the drawing.



Step to add Text

VIDYAPITH ACADEMY ★

Click the text tool in the tool box.

Create a text frame by clicking and dragging the mouse pointer across.

Then Text tab will be appear on the top as menu shown above.

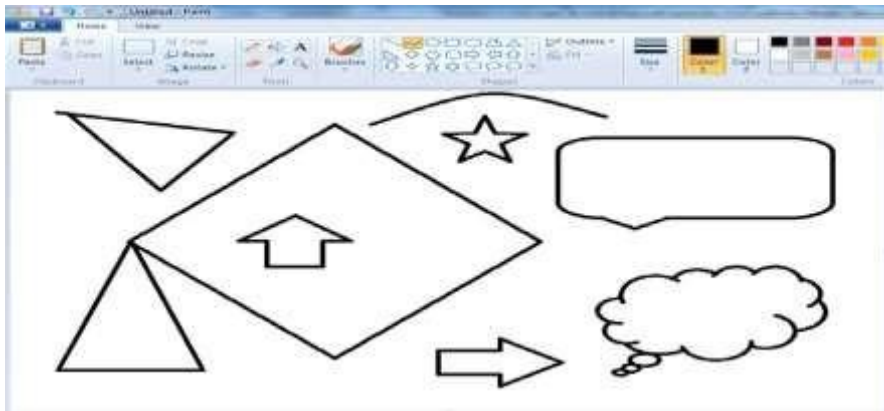
Choose the font style, size from the font toolbar.

Click in the text frame, and type your text.

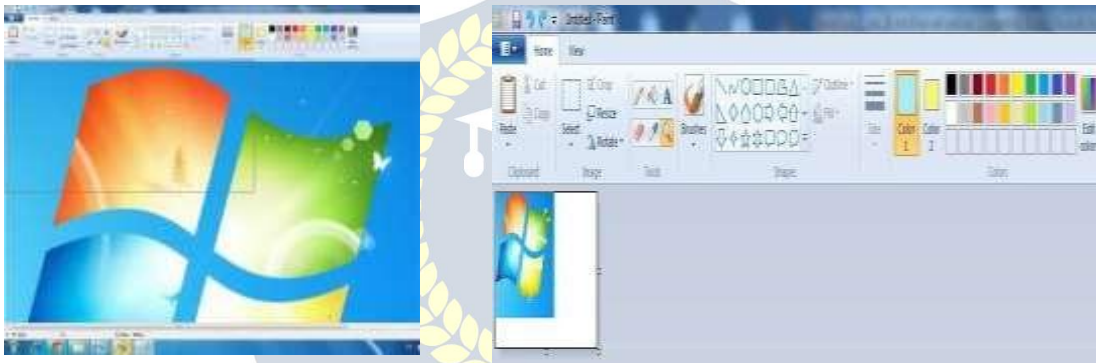
To change the color of the text, click a colour in the Color box. Click outside the text frame, once text has been done.



Shapes- To draw different shapes click on the shape you want to draw and drag the pointer across the drawing area.



 Magnifier is used to see the picture or object in an enlarged form. Choose a magnifier the left click mouse button will ZOOM In and right click will ZOOM



OUT the picture.

TYPE-I (Short answers based questions)

Name and Draw few tools of Ms-Paint. What is the effect of Magnifier tool?
 Name different options available on the text menu.
 What is the difference between paintbrush and Airbrush.

TYPE-II (Fill in the blanks)






is used to fill an area with color.
 enlarges or reduces the picture.
 is used to erase part of the picture. is

Magnifier-ZOOMOUT

Magnifier-ZOOMIN

used like paint spray.

Type-III(Matchthefollowing)

	SELECT
	TEXT
	ERASER
	PENCIL
	COLOR PICKER

LabSession

DrawthepictureinMs-Paint



Designonecoloredscenerywithsometextmessage. Draw a rainy scene and describe in five lines.

MOREABOUTPAINT BRUSH

Select-Thistoolisused toselecttheparticularpartoftheimagewithdifferent shapes.




Selection shapes

Rectangularselection

Free-form selection

Rectangularselection

 **Rectangular selection** Thistoolisusefulforselectingthe wholeorapartofan object in a rectangular form.

Steps for using Select tool

Choose the select tool -> Click and drag on the part of picture, which you want to select.



A dashed rectangle will appear around your selection, with the move cursor replacing the cross-hair one. You can press this cursor down anywhere inside your selection and drag to move it, or drag while holding the Ctrl key to make a copy of it.

Freeform selection

This tool is used to select an object in an irregular form. Free-Form Select is also understood in coloring parts of black and white images and vice versa.



Select the freeform select tool by using mouse pointer -> Point to the image to be selected -> click and drag on the area, which you want to select.



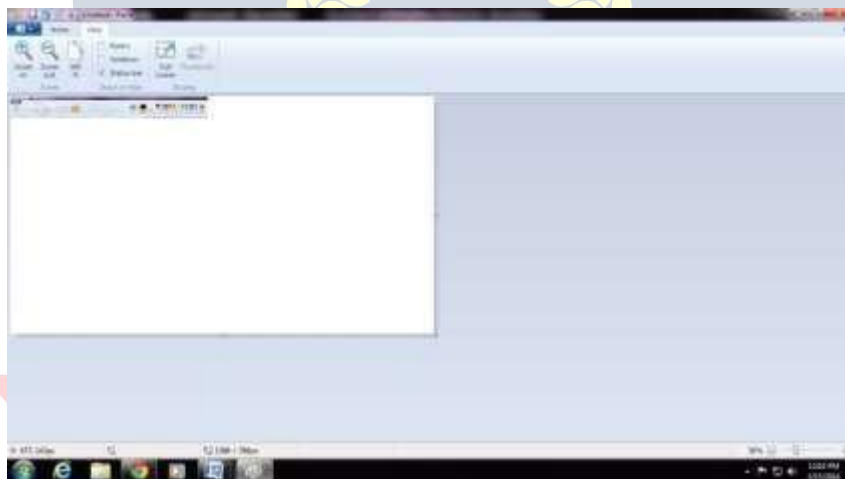
After clicking Freeform selection, drag your mouse around the area you want, as though you were drawing a line around it. When you release the mouse button, a selection rectangle will appear and it may seem that unwanted parts of the drawing have been included, but if you move the selection you'll see that this is not so.

View Menu - View Menu contains the following options: Zoom In, Zoom Out, 100%, Ruler, Full screen

ZoomIn-This option is used to view image in a large mode. It represents the closer view of a image.



ZoomOut-used to distant view of an image.



FullScreen-This option is used to see the Full View of the screen. You can also use Full screen option by pressing F11. Only image will be displayed without any tools. You can return back to original screen by clicking anywhere on the screen.



Let us do practice now

Write the function of Zoom option?

Make a list of options available in View menu?

What is the difference between Freeform Selection and Rectangular Selection? Lab Session

Make different shapes in Ms-Paint view with Zoom in and Zoom out. Select images using free form selection – selecting flower.

