

## Unit-V

### Introduction of Photoshop

Creating a New File:- Main Selections, Picking color, Filling a selection with color, More ways to choose colors and fill selections, Painting With paintbrush tool, Using the magic wand tools and applying a filter, Saving your document (Save your file:- Save file a JPEG, TIFE, GIF, PNG), Introduction and use of layers, Introduction and use of tools of Photoshop.

### Introduction to Coreldraw-

Introduction to coreldraw, use and importance in designing, various graphic file and file extension, vector image and raster images, introduction to screen and work area.

Introduction and use of tools of coral draw.

## Unit-V

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## EXERCISE

## VERY SHORT QUESTIONS

1. Difference between Web application and Window application.
2. What do by HTTP?
3. What is full form of AJAX?
4. Write syntax if external script.
5. Explain jQuery in one line.

## SHORT QUESTIONS

1. What is client side and server side scripting language?
2. What do you mean by client-side validation and server-side validation?
3. Explain need of client side scripting language.
4. Explain about jQuery selectors.
5. What is Cookie? Write down advantage and disadvantage of cookies.
6. What do you mean by stateless and statefull servers?
7. How frames are controlled by JavaScript? Explain with example.

## LONG QUESTIONS

1. What is form validation? Create an interactive form applying validation on some html controls using JavaScript.
2. Explain following effects of jQuery:
  - a. Hide and Show effect
  - b. Fading effect
  - c. Animation effect
3. Explain cookies in brief. Explain how to create, get and delete the cookie with proper JavaScript code.
4. Write JavaScript code for email validation on textbox and also apply some validation radio button.

Unit-V

Chapter

9

## Working with Photoshop

## 1. Introduction to Photoshop:

Adobe Photoshop is the premier photo editing software tool available, whether you are working on a webpage, PowerPoint presentation, or a document to be printed.

Photoshop can be used to enhance your images. Participants will learn about image file types, cropping images, compositing (putting several images together), ghosting images (for use as webpage backgrounds), using layers, creating masks, applying filters, and formatting text with bevels and other effects.

Photoshop is a program that is so rich, complex, and powerful, people literally spend most of the working hours of their life using it, and are still always learning new tricks and techniques.

Photoshop is the most popular program for creating and modifying images for the web. Photoshop provides strong performance, powerful image-editing features, and an intuitive interface. Adobe Camera Raw, included with Photoshop CS6, offers flexibility and control as you work with raw images as well as TIFF and JPEG images. Photoshop pushes the boundaries of digital image editing and helps you turn your dreams into designs more easily than ever before.

Photoshop is the industry-standard image rendering software. You can use Photoshop to create customized graphics, edit photographs and make flyers and images for print as well as for the web. This handout provides a simple how-to guide to familiarizing yourself with the Photoshop environment.

Adobe Photoshop is a massive program and it would take a volume of several thousand pages to cover every parameter of every function. Photoshop is unlike other common software interfaces which emulate virtual typewriters or graphing paper. Photoshop creates an artist's virtual studio/darkroom. When you open the program you see a toolbox on the left with tools you will use to manipulate your images, and on the right, a white square which is your "canvas" or work area. The gray area surrounding the canvas is not part of your image, but only defines its edges.

**History:** As Hyperstudio author Roger Wagner has observed, we live in a medicentric society that increasingly relies upon multimedia in its varied forms to both inform and entertain us. It is natural for people living within this media-saturated culture to want to create some of that media-- and Adobe Photoshop is the perfect tool for that task.

## 1.1 Objectives

This course will introduce some of the basic concepts of Adobe Photoshop.

- Be familiar with the Photoshop environment.
- Understand and use the Photoshop Toolbox tools.
- Use options with each tool with the Option Bar.
- Use the various work area Palettes.
- Create images using Layers.

**1.2 Photoshop Requirements:**

One thing to keep in mind about using Photoshop however is that since Photoshop is so powerful, it requires a fairly working environment. Specifically, it would be a good idea to have at least 32MB of RAM. After all, as a web designer, you will be tasking your system while developing.

Often you will have two browsers, Photoshop, an HTML editor, a word processor, and two or three ftp/ehnet sessions open all at one time.

To get the most out of this course, a user must possess "basic computing skills." As a minimum, users should comfortably have:

- A basic, working familiarity with using personal computer systems.
- The ability to open a program and switch from one open program to another.
- The ability to locate, open, and save a document in a specific location from within an application.
- The ability to save a document with a different name or location using the "Save As" command.
- The ability to save a document in a different file format, move, resize, minimize, maximize, restore, and close a window.

**1.3 Installing Adobe Photoshop**

Before you begin using Adobe Photoshop, make sure that your system is set up correctly and that you've installed the required software and hardware. You must purchase the Adobe Photoshop software separately.

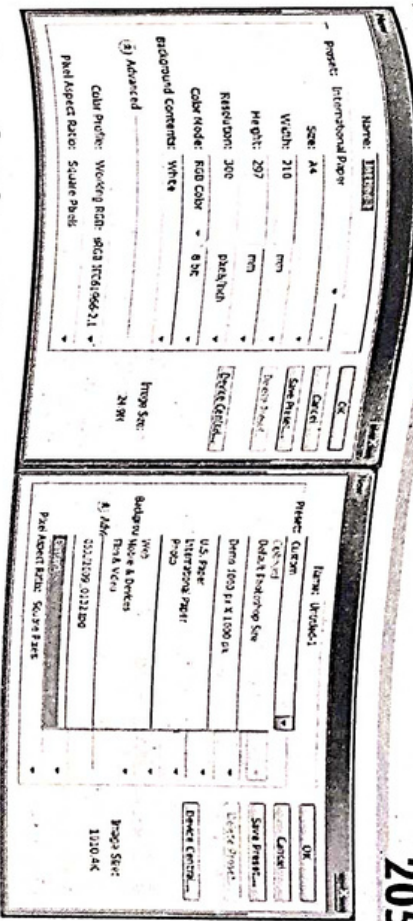
For system requirements and complete instructions on installing the software, see the Adobe Photoshop CS6 Read Me file on the application DVD or on the web at [www.adobe.com/support](http://www.adobe.com/support).

Note that some Photoshop CS6 Extended features, including all 3D features, require a video card that supports OpenGL 2.0. Photoshop and Bridge use the same installer. You must install these applications from the Adobe Photoshop CS6 application DVD (you cannot run the programs from the disc), or from the installation files you downloaded from Adobe, onto your hard drive.

Follow the onscreen instructions. Make sure that your serial number is accessible before installing the application.

**1.4 CREATING A NEW DOCUMENT**

You can create a new document by selecting New from the File menu. The New dialogue box allows you set all of the parameters for your new document and has a number of presets to get started. It is important to set up your document correctly. For example, you need it to be at the correct size and resolution for its intended purpose. If you select a paper size preset, it will automatically set the resolution for print. Likewise, if a web preset is selected the resolution will be set accordingly.



**2. INTRODUCTION TO PHOTOSHOP ENVIRONMENT**

**2.1 Photoshop Toolbox**

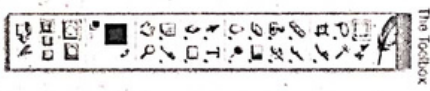
The Photoshop toolbox is the most important user interface with this complex program, and includes the primary tools to work with graphics. These include the tools that let you use type, and select, paint, draw, sample, edit, move, annotate, and view images.

Other tools in the toolbox allow you to change foreground/background colors, go to Adobe Online by either clicking the feather Adobe logo at the top of the pallet or by going to File > Adobe Online.

To view the name of a tool button, hold your mouse pointer over the tool you want to see, and the name will appear as a tool tip.

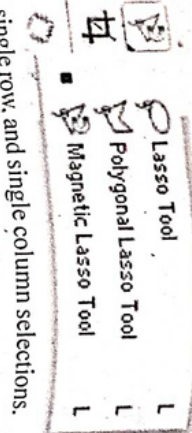
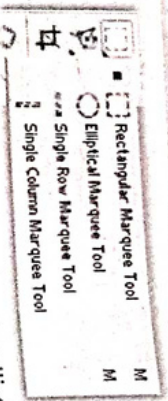


Hold your cursor over a tool for the tool name and keyboard shortcut.



The Toolbox

Some tool buttons have multiple tools combined into one button. Tool buttons with multiple tools have a small triangle in the lower right hand corner of the button. Right click and hold this button to view the alternate tools.



The marquee tools make rectangular, elliptical, single row, and single column selections.

- ✦ The move tool moves selections, layers, and guides. The lasso tools make freehand, polygonal (straight-edged), and magnetic (snap-to) selections.
- ✦ The magic wand tool selects similarly colored areas.

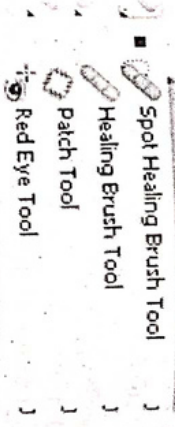
- ✦ The crop tool trims images.
- ✦ The slice tool creates slices. (Slices are allow you to actually split up a larger image in Photoshop so it loads faster on the internet.)

**The spot healing brush tool** removes blemishes and other imperfections in your photos by sampling pixels from around the retouched area.

**The healing brush tool** repairs imperfections in a selected area of an image using a selected sample or pattern.

**The patch tool**, like the healing brush tool, matches the texture, lighting, and shading of the sampled pixels to the source pixels. You can also use the patch tool to clone isolated areas of an image.

**The red eye tool** fixes red eyes with one click. Set options to adjust pupil size and darkening amount.



**The brush tool** paints brush strokes.

**The pencil tool** paints hard-edged strokes.

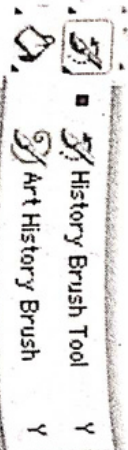
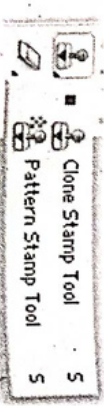
**Color replacement tool** replaces specific colors in your image. You can paint over a targeted color with a corrective color.

**The clone stamp tool** paints with a sample of an image.

**The pattern stamp tool** paints using part of an image as a pattern.

**The history brush tool** paints a copy of the selected state or snapshot into the current image window.

**The art history brush tool** paints with stylized strokes that simulate the look of different paint styles, using a selected state or snapshot.



**The eraser tool** erases pixels and restores parts of an image to a previously saved state.

**The background eraser tool** erases areas transparency.

**The magic eraser tool** erases solid-colored areas (opacity) with a single click.

**The gradient tools** create straight-line, radial, angle, reflected, and diamond blends between colors.

**The paint bucket tool** fills similarly colored areas with the foreground color.

**The blur tool** blurs hard edges in an image.

**The sharpen tool** sharpens soft edges in an image.

**The smudge tool** smudges data in an image.

**The dodge tool** lightens areas in an image.

**The burn tool** darkens areas in an image.

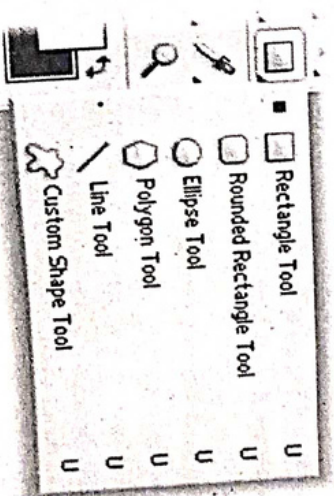
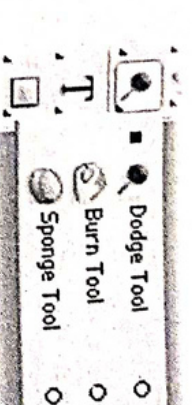
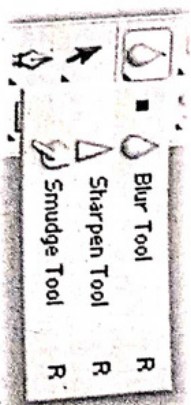
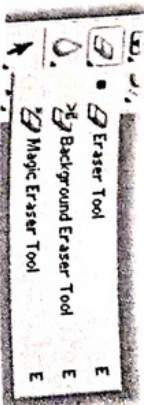
**The sponge tool** changes the color saturation of an area.

**The path selection tools** make shape or segment selections showing anchor points, direction lines, and direction points.

**The type tool** creates type on an image, or selections in the shape of type.

**The pen tools** let you draw smooth-edged paths.

**The custom shape tool** makes customized shapes selected from a custom shape list.



**The annotations tool** makes notes and voice annotations that can be attached to an image.

The eye dropper tool samples any color in an image and records the foreground (drawing) color in it.

The color sampler tool samples colors in an image and records them for reference.

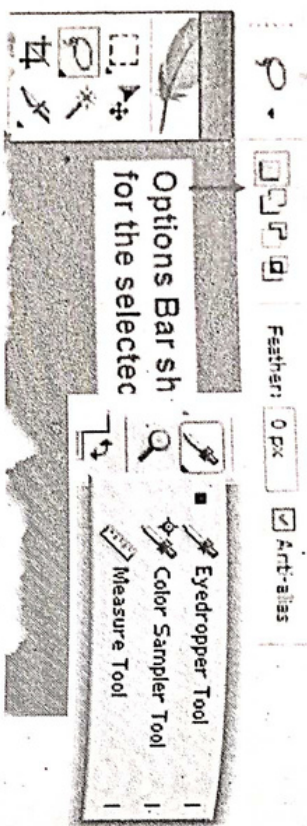
The measure tool measures distances, locations, and angles.

The hand tool moves an image within its window.

The zoom tool magnifies and reduces the view of an image.

## 2.2 Use Tool of Options Bar

Below Photoshop's menu bar is the tool options bar. The Options Bar is where you adjust settings for the currently active tool. The options bars context-sensitive, meaning that it changes depending on which tool you have selected.



Some settings in the options bar are common to several tools (such as painting modes and opacity), and some are specific to one tool (such as the Auto Erase setting for the pencil tool).

You can move the options bar anywhere in the work area, or dock it at the top or bottom of the screen. If you'd like to move the options bar, click on the small line on the far left of the toolbar and drag it to a new position.

The options bar includes a palette well to the right, for storing other palettes, providing quick access to palettes such as Swatches and Actions that you reference briefly while using the application. The palette well is only available when using a screen resolution greater than 800 pixels x 600 pixels (a setting of at least 1024 x 768 is recommended).

To display the tool options bar:

Do one of the following:

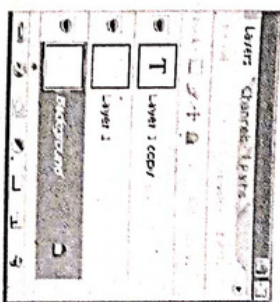
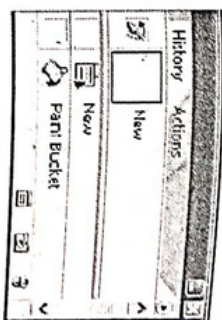
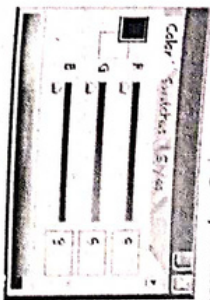
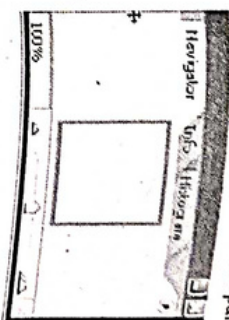
- Choose Window > Options.
- Double-click a tool in the toolbox.

To return a tool or all tools to the default settings:

Right-click the tool icon on the options bar, then choose Reset Tool or Reset All Tools from the context menu.

## 3. Using Palettes

Palettes help you monitor and modify images. By default, palettes appear stacked together in groups. Palettes group can be separated by "undocking" a certain palette and rejoined by "docking" it into a group. Click and drag on the palette title to move a palette from one group to another.



### Displaying palettes

You can display or hide palettes as you work. On the right in the Options Bar is the palette well. This is a space where you can keep palettes that you don't use as frequently or don't want occupying your workspace. It keeps them easily accessible, but hidden from view until you need them. In the default workspace, you should have title tabs for the Brushes, Tool Presets, and Layer Comps palettes in the palette well. You can drag other palettes to this area and they will remain hidden there until you click on the palette tab to reveal it. When you need access to one of the palettes, just click on the title tab, and the full palette will expand below its tab.

To show or hide palettes:

Do one of the following:

- To show or hide all open palettes, the options bar and the toolbox, press Tab.
- To show or hide all palettes, press Shift+Tab.

To show or hide one pallet:

Choose Window > then the pallet to hide or show.

1. check mark will appear beside palettes that are visible.

### 3.1 CORRECTING MISTAKES

Most operations can be undone if you make a mistake. Alternatively, you can restore all or part of an image to its last saved version. But available memory may limit your ability to use these options.

#### To undo the last operation:

Choose **Edit > Undo**. (For most operations you can also use **Ctrl+Z**.) If an operation can't be undone, the command is dimmed and changes to **Can't Undo**.

#### To redo the last operation:

Choose **Edit > Redo**. To free memory used by the **Undo** command, the **History** palette, or the **Clipboard**: Choose **Edit > Purge**, and choose the item type or buffer you want to clear. If already empty, the item type or buffer is dimmed.

**Important:** The **Purge** command permanently clears from memory the operation stored by the command or buffer; it cannot be undone.

For example, choosing **Edit > Purge > Histories** deletes all history states from the **History** palette. Use the **Purge** command when the amount of information held in memory is so large that Photoshop's performance is noticeably diminished.

#### To revert to the last saved version:

Choose **File > Revert**.

**Note:** Revert is added as a history state in the **History** palette and can be undone.

To restore part of an image to its previously saved version:

#### Do one of the following:

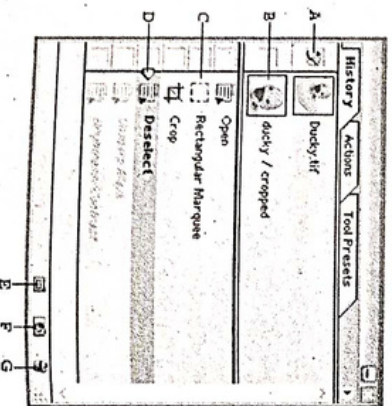
- Use the history brush tool ( ) to paint with the selected state or snapshot on the **History** palette.
- Use the eraser tool ( ) with the **Erase to History** option selected.
- Select the area you want to restore, and choose **Edit > Fill**. For **Use**, choose **History**, and click **OK**.

**Note:** To restore the image with a snapshot of the initial state of the document, choose **History Options** from the **Palette** menu and make sure that the **Automatically Create First Snapshot** option is on.

### 3.2 THE HISTORY PALETTE

You can use the **History** palette to revert to a previous state of an image, to delete an image's states, and to create a document from a state or snapshot.

- Sets the source for the history brush
- Thumbnail of a snapshot
- History state
- History state slider
- Create new document from current state button
- Create new snapshot button
- Trash button



### WORKING WITH PHOTOSHOP

To delete one or more states of the image  
do one of the following:

- Click the name of the state, and choose **Delete** from the **History** palette menu to delete that change and those that came after it.
- Drag the state to the **Trash** button ( ) to delete change and those that came after it.
- Choose **Clear History** from the palette menu to delete the list of states from the **History** palette, without changing the image. This option doesn't reduce the amount of memory used by Photoshop.
- Hold down **Alt** (in **Windows**) or **Option** (in **Mac OS**) and choose **Clear History** from the palette menu to purge the list of states from the **History** palette without changing the image.

If you get a message that Photoshop is low on memory, purging states is useful, since the command deletes the states from the **Undo** buffer and frees up memory. This action cannot be undone.

Choose **Edit > Purge > Histories** to purge the list of states from the **History** palette for all open documents.

### 3.3 USING CONTEXT MENUS

In addition to the menus at the top of your screen, context-sensitive menus display commands relevant to the active tool, selection, or palette.

To display context menus:

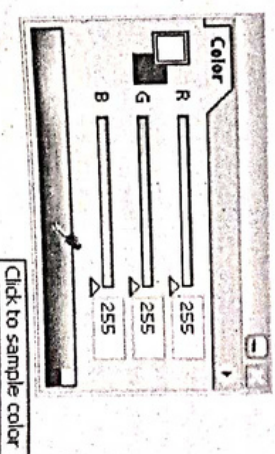
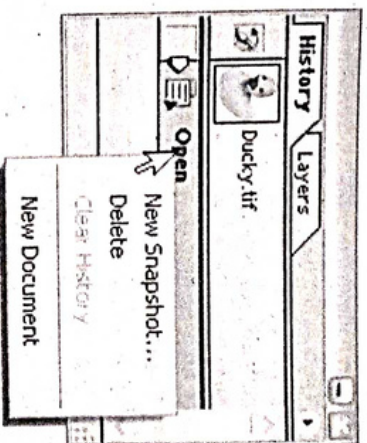
- Position the pointer over an image or palette item.
- Click with the right mouse button (Windows) or hold down **Control** and press the mouse button (Mac OS).

#### The Color palette

The **Color** palette displays the color values for the current foreground and background colors. Using the sliders in the **Color** palette, you can edit the foreground and background colors according to several different color models. You can also choose a foreground or background color from the spectrum of colors displayed in the color bar.

#### To display the Color palette:

Choose **Window > Color**, or click the **Color** palette tab. To select the foreground or background color: From the **Color** palette menu, choose the color model you want to use for color readout values. To edit the foreground or background color, make sure that its color selection box is active or outlined. To



make the foreground or background color selection box active, click the box.

To specify a new color, do one of the following:


1. Drag the color sliders.
2. Drag through the color bar along the bottom. If you want to turn off the dynamically changing color sliders preview feature to improve performance, choose Edit > Preferences > General and deselect Dynamic Color Sliders.
3. Enter values next to the color sliders.
4. Click the color selection box, choose a color in the color picker, and click OK.

#### 4. Main Selections


Adobe Photoshop also offers a number of selection tools: Quick Mask, Rectangular marquee, Elliptical marquee, Lasso, Polygonal Lasso, Magnetic Lasso, Magic Wand.

The most efficient way to make a selection in Adobe Photoshop is to use Quick Mask mode.

##### 4.1 Quick Mask mode

To switch from Standard mode to Quick Mask mode, press the button  in the lower part of the Toolbox or use a hot key Q.

Paint over the areas to be selected with a hard edge Brush (in Quick Mask mode the selected area is highlighted in semi-transparent red).

Then switch back to Standard mode by pressing the button  in the lower part of the Toolbox and invert the selection using the command Select->Inverse. It is critical to invert the selection as in Quick Mask mode it is the unpainted area that falls into the selection.

Note that if you set Selected Areas in the Quick Mask Options (opened by double clicking on the Quick Mask button), you do not need to invert the selection. Also, you can change the highlight color and its opacity here.

##### Hints on the Quick Mask Options:


Open the Options by double clicking on the Quick Mask button.

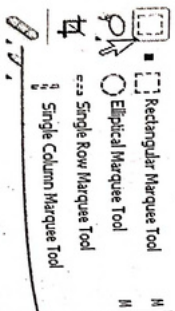
- If the "Masked Areas" option is active the areas non marked with red will be selected
- If the "Selected Areas" option is active the areas marked with red will be selected

The Rectangular marquee and Elliptical marquee tools are hidden in the Toolbox under one and the same icon. The icon on the Toolbox displays the last tool used. To open the floating menu right-click on the arrow in the lower right corner of the displayed icon.

##### 4.1.1 Rectangular marquee

This tool selects rectangular and square areas. To select a rectangular area you should:

Step 1: Activate the Rectangular marquee tool by clicking on the icon , or (if the Rectangular



marquee was not the last tool applied) select it from the floating window.


Step 2: Bring the mouse cursor to the point of the image where the corner of an imaginary rectangle should be, and press the left mouse button.

Step 3: Keeping the left button pressed, move the cursor diagonally to the opposite corner and release the button.

To select a square area of the image make a selection keeping the Shift key pressed. Take into account that if you already have a selected area the new selection will be added to the previous one. To avoid it you should press the Shift key only when you start selecting a new area.

##### 4.1.2 Elliptical marquee

This tool selects ellipses and circles. To select an elliptical area you should:

Step 1: Select the Elliptical marquee tool from the Toolbox by clicking on the icon , or (if the Elliptical marquee was not the last tool applied) select it from the floating window.

Step 2: Bring the mouse cursor to the point of the image where the corner of an imaginary rectangle with an inscribed ellipse should be, and press the left button.

Step 3: Keeping the left button pressed, move the cursor diagonally to the opposite corner and release the button.

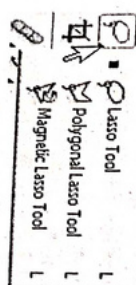
To select a circular area of the image make a selection keeping the Shift key pressed. Take into account that if you already have a selected area the new selection will be added to the previous one. To avoid it you should press the Shift key only when you start selecting a new area.

If you keep the Alt (Option in Macintosh) key pressed when selecting an elliptical or a rectangular area, the selection is generated from the center to borders, not from one corner to another.


##### 4.2 Lasso, Polygonal Lasso, Magnetic Lasso tools:

These tools are hidden in the Toolbox under one and the same icon. The icon on the Toolbox displays the last tool selected. To open the floating menu right-click on the arrow in the lower right corner of the displayed icon.

##### 4.2.1 Lasso Tool



The tool allows creating freehand selections. To make a freehand selection you should:

Step 1: Select the Lasso tool from the Toolbox by left-clicking on the icon , or (if Lasso was not the last tool applied) select it from the floating window.


Step 2: Bring the mouse cursor to the object that must be selected and outline it keeping the left button pressed.

##### 4.2.2 Polygonal Lasso

The tool makes freehand selections, but its contour is made up of straight segments.

## 5. Picking Color


To make a selection you should:

- Step 1.** Select the Polygonal Lasso tool from the Toolbox by clicking on the icon  or (if Polygonal Lasso was not the last tool applied) select it from the floating window.
- Step 2.** Bring the cursor to any point near the object to be outlined and press the left mouse button - it'll be the first point of the contour.
- Step 3.** Move the cursor to the next point of the contour not far from the first one and left-click it again. The program will automatically draw a straight line between the two points.
- Step 4.** Keep putting points in this way until the whole object is outlined and close the contour.

## 4.2.3 Magnetic Lasso

This tool makes a freehand selection. When you use Magnetic Lasso you do not need to follow the contour of the object precisely. If the object stands out against the background the border of the selected area will be traced automatically as you move the cursor along the object.


To select an area using Magnetic lasso you should:

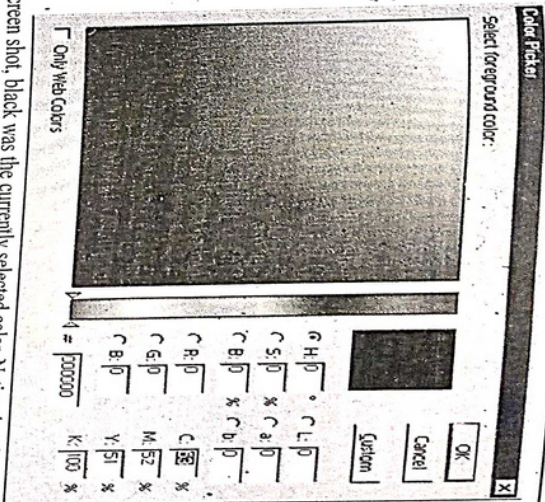
- Step 1.** Select the Magnetic Lasso tool from the Toolbox by clicking on the icon  or (if Magnetic Lasso was not the last tool applied) select it from the floating window.
- Step 2.** Bring the mouse cursor to the border of the object that should be selected.
- Step 3.** Press the left button and start dragging the cursor along the object. Pay attention to fastening points that appear as you outline the object and when you make a click. If a fastening point is irrelevant you can remove it by pressing the Delete key and return to the previous fastening point to continue outlining the object.
- Step 4.** Close the contour, that is join the first fastening point with the last one by bringing the cursor to the first point or by making a double-click.

## 5. Magic Wand

This tool selects a consistently colored area. You can set Tolerance in the Options palette of the Magic Wand tool. The higher is the value, the more colors will fall into the selected area. The Tolerance value ranges from 0 to 255. At Tolerance equal to 0 the selected area will be represented only by one color; at Tolerance equal to 255 - all colors of the image will be selected, that is the whole image.

To select a consistently colored area, you should:

- To select a consistently colored area, you should:
- Step 1.** Select the Magic Wand tool in the Toolbox by clicking the icon .
- Step 2.** Bring the cursor to the pixel of the image that must be included into the selection and left-click it. As a result an outline appears around the pixel. It includes colors of the image similar to the color of the selected pixel according to the specified Tolerance value.
- These selection tools are efficient due to the flexibility of their usage: you can add to, subtract from or intersect a selection.
- To add an area to the previous selection you should press the Shift key before you use a selection tool and, keeping it pressed, make a new selection.



In this screen shot, black was the currently selected color. Notice that there is a small circle in the lower left corner of the color picker area, this circle surrounds the selected color. Click any where else in the color picker and the circle will follow.

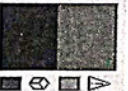
Now take a look at all those numeric entry fields on the right lower quadrant of the dialog box. These allow you to enter numeric color values in a variety of ways. The default for the color picker is to choose colors by Hue. You should have a dot next to the H in the color picker; if you are still using the default preferences. As you move the color picker from left to right in the large color box you are adjusting the saturation of the hue. Try it and you'll notice the numbers next to the S change from 0 (far left) to 100 (far right). Moving the color picker up and down adjusts the brightness of the hue. As you move the color picker up and down notice that the B values change from 0 to 100 as well. To change the Hue, you can click in the narrow rainbow-colored strip next to the large color picker area, or you can drag up and down in this space.

You may select a specific color by its RGB values. In these cases, you would enter numbers in the corresponding numeric fields for R, G, and B. For example, the RGB values for 50% gray are R128-G128-B128 and would be entered like this:

R: 128  
G: 128  
B: 128

Notice the two squares just left of the cancel button. The color shown on top is the currently selected color, the color on the bottom is the color you are replacing.

See a triangle with an exclamation mark, it means you have selected a color that is out of gamut for CMYK. Below the out of gamut alert, Photoshop displays the closest color that is within the CMYK color gamut.



See a small cube displayed, it indicates that the color selection is not "Web-safe." Below the Web safe alert, Photoshop displays a tiny swatch of the closest Web-safe color match. Clicking on either of the closest match swatches will change the selected color to the closest match.



## 7. Filling a Selection with color

**Fill Tools** - These tools fill a selected object, area, or layer with color.

In Adobe Photoshop this is done with **Paint Bucket** and **Gradient**.

The **Paint Bucket** and **Gradient** tools

occupy one cell in the Toolbar, and are represented by the icon of the last tool used.

To choose another tool, right-click the triangle next to the tool and choose the desired tool from the menu that appears.

This menu can also be accessed differently; you press the tool's icon and wait for a few moments.



### 7.1 Gradient Tool:

This tool is used to fill with a gradient, i.e. it fills with one color that gradually changes to another. To make a gradient fill:

1. Select an area to be filled with a gradient. If an entire layer will be filled then it is not necessary to make a selection.
2. Choose the Gradient tool from the Toolbar.
3. Set the primary color (the first color of the gradient) and the background color (the last color of the gradient).
4. Set the tool's parameters in the Options Panel.
5. Move the cursor inside the selected area.
6. Press the left mouse button, and while keeping it pressed, move in a straight line. The starting point defines where the primary color will begin, the ending point defines where the background color will be. The length of the line determines the degree of transition from one color to another; the shorter the line, the sharper the transition between colors.

The following **parameters for Gradient** can be set in the Options Panel.

The Gradient parameter displays gradient types from which to choose. To choose another type of gradient, press the triangular button to open a palette where a different gradient can be selected, then choose a gradient pattern.

#### Gradient Style:

The gradient's style can be set with one of the following buttons:

- Linear.
- Radial
- Angle.
- Reflected
- Diamond.

**Mode.** This parameter sets the mode in which color is applied.

**Opacity.** This parameter sets the level of opacity for the gradient. The lower the value for Opacity, the more opaque the colors are.

**Reverse.** If Reverse is checked, the gradient begins with the background color and ends with the primary color.

**Dither.** When applying a gradient with many color transitions the transitions between colors will be visible as bands. To smooth these transitions check Dither.

**Transparency.** It is possible to add transparency to the gradient. To add transparency to a gradient check Transparency.

To create a complex gradient (a gradient which contains transitions between three or more colors) or to edit an existing type of gradient use the Gradient Editor, which is opened by clicking on the image of the gradient itself.

### 7.2 PAINT BUCKET

It is used to fill a selected area with a color or pattern by clicking on a pixel in that area. For example, if you want to replace all red pixels in part of an image with blue pixels, then select blue as the primary color and click on one of the red pixels.

Parameters for the Paint Bucket are set in the Options panel.

**Fill :** This parameter determines the way of Paint Bucket will fill an area: with a color (Foreground) or pattern (Pattern).

**Pattern :** If Pattern is chosen in the Fill parameter, then clicking on the triangular button next to Pattern will open a palette of patterns to choose from. Any of these can be used to fill an area.

**Mode :** This parameter sets the mode in which an area is filled. For example, if darken mode is chosen, Paint Bucket will only replace pixels lighter than the primary color.

**Opacity :** This parameter sets the opacity of the fill.

**Tolerance :** This parameter sets the degree to which pixel colors are influenced by a fill. It can accept values from 0 to 255. At lower values of the Tolerance parameter, the range of colors affected will be affected by the tool.

**Contiguous :** If Contiguous is checked, then adjacent areas that are affected by the Tolerance value will be filled. If you do not want these areas to be affected then Contiguous should be unchecked.

**Anti-aliased :** When Anti-aliased is checked, a translucent border is created between filled and unfilled areas. If this effect is not desired then Anti-aliased should be unchecked.

**All Layers :** When All Layers is checked, all visible layers are affected by a fill. When it is unchecked only the active layer is affected.

It is also possible to execute a fill by selecting Fill in the Edit menu. To do this, first select an area using one of the selection tools and then choose the command Fill in the Edit menu. It is not necessary to make a selection if an entire layer is to be filled. After the Fill command is selected, a dialog window will open with the same settings to choose from as for the Paint Bucket tool in the Options panel.

### 8. MORE WAYS TO CHOOSE COLORS AND FILL SELECTION

#### 8.1 Ways of choosing color

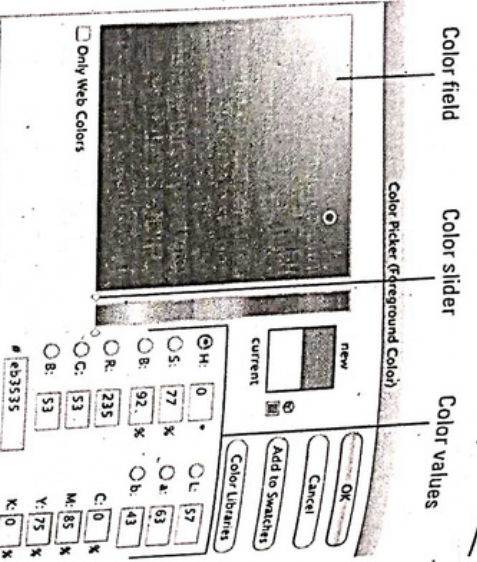
##### 8.1.1 Using color picker

When you click either the Foreground or Background color swatch in the Tools panel of Photoshop, you're transported magically to the Color Picker. This huge dialog box allows you to select a color from the color spectrum (color slider) or define your color numerically.

Choosing a color visually is fine for web or multimedia work, but not recommended for print work. Among other reasons, your monitor uses an RGB (red, green, and blue) color model, whereas printers use a CMYK (cyan, magenta, yellow, and black) model.

To select a color visually, follow these steps:

- Click either the Foreground or Background color swatch in the Tools panel. The Color Picker dialog box appears.
  - Drag the color slider to get in the ballpark of the color you want.
  - To fine-tune your choice, click in the large square on the left.
- This square area is called a color field. The circular icon targets your selected shade. The dialog box displays your new chosen color, as well as the current, or original, foreground or background color.



The numeric values also change accordingly to represent the exact shade you've chosen. Alternatively, if you know the numeric values of the color you want to use, you can plug in the values in the text boxes on the right side of the Color Picker.

For example, RGB values are based on brightness levels, from 0 to 255, with 0 being black and 255 being the pure color or white. CMYK values are based on percentages (0 to 100) of the four process colors - cyan, magenta, yellow, and black. You can enter the hexadecimal formula (six digit alpha numeric color code) for web colors.

- When you're satisfied with the color, click OK. Note that you can add your new color to your Swatches panel, if desired. Click the Add to Swatches button. Name your new swatch and click OK.
- Click OK to exit the Color Picker.

The HUD (Heads Up Display) Color Picker is a nifty onscreen tool that lets you quickly select colors. This can come in handy when you want to choose colors based on your image and want to have your Color Picker adjacent to those colors.

To choose a color from the HUD Color Picker, select any painting tool. Then press Shift+Alt+right-click and click in your image window to display the HUD Color Picker. Drag to select your desired

hue and shade (you can release the keys while you drag). You'll see the appearance of a circle target to help pinpoint your desired color.

##### 8.1.2 Using Swatches Panel

The Swatches panel contains a number of useful preset colors, as shown in figure below. If your Swatches panel is not visible to your current workspace you can access it by choosing Swatches in the Window menu.

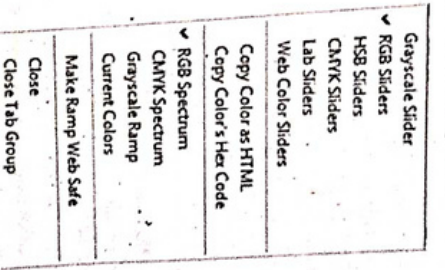
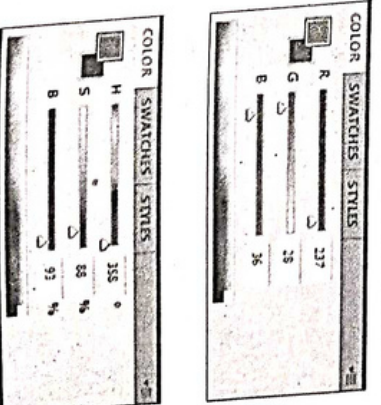
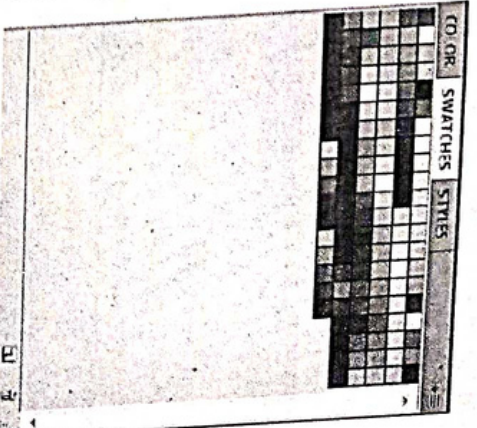
Additional swatches are available from the flyout menu in the top right hand corner of the panel. You can also create your own swatches by:

- Click on the turning page icon at the bottom of the Swatches panel to add the current foreground color to the list.
- Click on the "Add to Swatches" button in the Color Picker dialogue box.
- Click on an empty space in the Swatches panel to add the current foreground color to the list.

Swatches are extremely useful (or graphic and web designers because you can create your own set of custom colors from a layout or web page. You can then save that set of colors from the Swatches panel flyout menu. They may be quickly loaded (from the flyout menu) the next time that you are required to create a design for a particular client and need the color palette that was used in a previous design.

##### 8.1.3 Using color panel

You can create foreground or background color pattern from color panel.

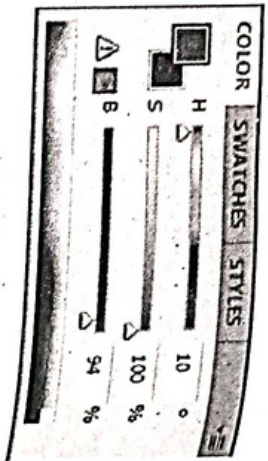


The colors are changed by either moving the

sliders or by clicking directly on the spectrum. Both the sliders and the spectrum are configurable to accommodate working in the most popular color spaces.

The most useful setup for this panel is to have the sliders set to HSB and the color spectrum set to RGB. If you create a color that is out of the gamut for your printer, a warning icon will appear. If you click on the icon, the color will automatically be change to the nearest in gamut color.

If you are a web designer, you can choose the "Web Color Sliders" and "Make Ramp Web Safe" options from the fly-out menu. The Color panel will then appear as shown in below figure and the out of print gamut warning will become a non-web safe color warning.



## 8.2 Filling a Selection with color

### Fill a Selection with a Solid Color :

When you just want to add a solid color while working in Photoshop, you use either the foreground or the background color. (These colors appear at the bottom of the Tools panel.) The following steps show you the basics of filling a selection with either the foreground or the background color (you have plenty of other Fill options as well.)

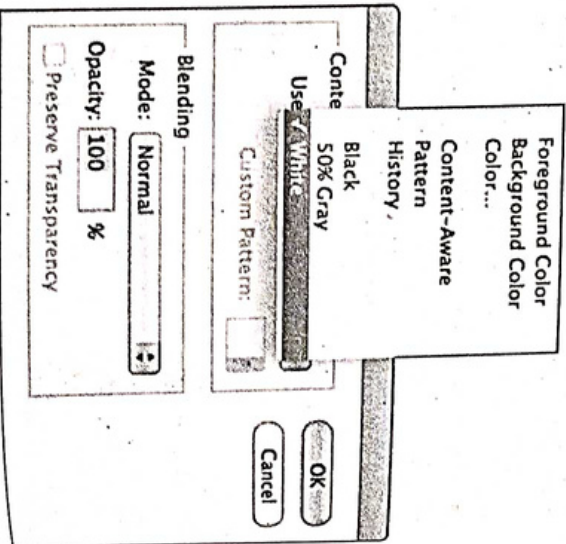
- Create your selection on a layer.
- Select a fill color as the foreground or background color.
- Choose Window→Color. In the Color panel, use the color sliders to mix your desired color.
- Choose Edit→Fill.

The Fill dialog box appears. In this dialog box, under Contents, you can select whether to fill with the foreground or the background color. You also can select Color (which launches the Color Picker), Black, 50% Gray, White, History, Pattern, or the Content-Aware option.

- Click OK.

The color that you choose fills the selection.

You can select a blending mode, the fill opacity, and choose whether to fill the entire selection or

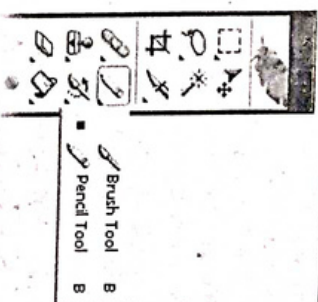


only the portions of the selection that contain pixels (the nontransparent areas). It's recommended to not adjust your Blending Mode or Opacity settings in the Fill dialog box; instead create a new layer for your fill and adjust those settings in the Layers panel, where you have more flexibility.

## 9. Painting Tools: Brush / Pencil

Photoshop provides two tools for the brush tool and the pencil tool. Both tools work basically the same way - you left-click and drag your mouse in the image to draw. Painting uses the currently selected foreground color.

The Brush tool and the Pencil tool work like traditional drawing tools by applying color with brush strokes. The Gradient tool, Fill command, and Paint Bucket tool apply color to large areas. Tools such as the Eraser tool, Blur tool and Smudge tool modify the existing colors in the image.



### 9.1 Painting with the Brush Tool

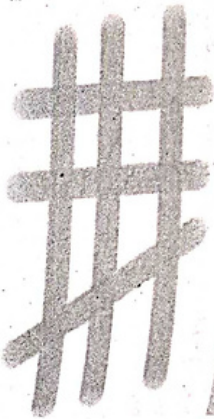
- Brush: The size of the brush.
- Mode: The blending mode, for most work Normal will be the best option.
- Opacity: Anything less than 100% will allow the underlying image to be seen.
- Flow: Determines how quickly paint is applied. Lower setting produces lighter strokes.



1. Open a new document in Photoshop.
2. From the painting tools, select the Brush tool
3. Choose a color for the brush by using one of the following methods:
  - To open the Adobe Color Picker, click the Foreground Color selection box in the Tools panel. Select a color and click OK.
  - To open the heads-up-display (HUD) color picker in Windows, hold down Shift+Alt while you Rightclick. Then drag to select a color hue and shade, and release.
4. Choose a relatively large brush, such as 50 px, from the Brush Preset picker.
5. In the options bar, leave Mode set to Normal.
6. Set Opacity to 100%.
7. Set Flow to 20%.
8. Draw freehand by dragging in the image.
 

When you set Flow to 20%, the darkness of the line moves 20% closer to full opacity each time you overlap lines.

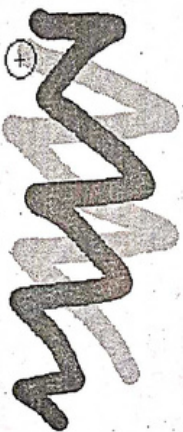
- Without lifting the pointer, drag back over the line you just painted. Where the lines overlap, the paint becomes darker because you set Flow to 20%. In that area, the traced overline has an opacity of 40%.
- Note:** To draw a straight line, click a starting point in the image. Shift-click an ending point for the line.
- To draw a new line, release the mouse button  $\epsilon$  Brush. Opacity 100%, Flow 20%.



## 9.2 PAINTING WITH THE PENCIL TOOL

- Create a new Photoshop document.
- From the painting tools, select the Pencil tool.
- Choose a color for the Pencil tool by using one of the following methods:
  - To open the Adobe Color Picker, click the Foreground Color selection box in the Tools panel. Select a color and click OK.
  - To open the heads-up-display (HUD) color picker in Windows, hold down Shift + Alt while you Right click. Then drag to select a color hue and shade, and release.
- From the Brush Preset picker, manually adjust the Diameter (brush size) to create a small-sized brush, perhaps 20 px.
 

**Note:** You can also select a preset size and shape in the Brush Preset picker. Hardness determines the softness of the line's edges.
- In the options bar, leave Mode set to Normal.
- Make sure Opacity is set to 100%.
- Draw by using one of the following methods:
  - To draw a straight line, click a starting point in the image. Shift-click an ending point for the line.
  - To draw freehand, drag in the image.
- Change Opacity to 50% in the options bar and draw another line that overlaps the first line. Observe that the line is half as dark as the first line and that the first line shows through wherever you overlap edit. Overlap lines with opacity set to 50%.



## 9.3 PAINTING WITH THE MIXER BRUSH TOOL

Use the Mixer Brush to create realistic painting techniques such as mixing colors on the canvas, combining colors on a brush, and varying paint wetness across a stroke.

- Open Photoshop and create a new document.
- From the painting tools, select the Mixer Brush tool
- To load paint into the reservoir, Alt-click (Windows) or choose a foreground color.
 

**Note:** When you load paint from the canvas, the brush tip reflects any color variation in the sampled area. If you prefer brush tips of uniform color, select Load Solid Colors Only from the Brush Load menu in the options bar.
- From the Brush Preset picker, manually adjust the Diameter to create a medium-sized brush, perhaps 25 px.
 

**Note:** You can also select a preset size and shape in the Brush Preset picker.
- In the options bar, set Mixer Brush Combinations options using the preset pop-up menu to apply popular combinations of Wet, Load, and Mix settings.
- Do one or more of the following:
  - To draw a straight line, click a starting point in the image, and then Shift-click an ending point.
  - When using the Brush tool as an airbrush, hold down the mouse button without dragging to build up color.
  - Drag in the image to paint. Notice how the paint dries out towards the end of the stroke. Select another foreground color from the toolbox and drag over the painted area.



Shift-click to paint a straight line

Using the Mixer Brush



Dragging the Mixer tool with multiple colors

**VERY SHORT QUESTIONS:**

- Q1. What is Photoshop? Define in a sentence.
- Q2. What do you mean by undo and redo command?
- Q3. What is magic wand tool?

**SHORT QUESTIONS:**

- Q1. Describe Photoshop and its objectives.
- Q2. Write down steps for installing Photoshop.
- Q3. How to create a new document in Photoshop?
- Q4. Explain how to work with option bar tools?
- Q5. What is palettes? How palettes are useful?
- Q6. Explain different mode of selection.
- Q7. Write short note on painting with brush and painting with pencil.

**LONG QUESTIONS:**

- Q1. Explain all tools of Photoshop.
- Q2. Explain different lasso tools with example.
- Q3. What are different way of picking color? Explain with example.
- Q4. Explain following way filling a selection with example. Write down steps also.
  - a. Using color panel
  - b. Using Swatches Panel
  - c. Using Color picker.
  - d. Filling selection with solid colors.



## Filters and Layers

## 1.1 PHOTOSHOP MAGIC WAND TOOL AND APPLYING FILTER

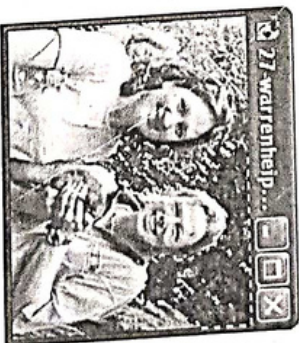
## 1.1 PHOTOSHOP MAGIC WAND TOOL

The Magic Wand tool allows you to select an area of an image based on its color. The tool is located near the top of the Photoshop Toolbox.

When you click an area in an image with the magic wand, all areas which are in similar color are selected. You can specify various options to determine the exact selection.



Original Image



Select an area with the Wand tool



Add additional areas

Select the magic wand tool in the toolbox.

- In the options bar, select a Tolerance value (0 to 255). This determines how closely to match colors - higher tolerance means a larger selection.
- Check Anti-aliased to define a smooth edge to the selection.
- Check Contiguous to select only areas which are joined together.
- Check Use All Layers to select areas from all layers.
- Click the image in an area which you want to select.

Note: You can add and subtract to the selection by using your Shift and Alt keys, or clicking the selection buttons in the options bar.



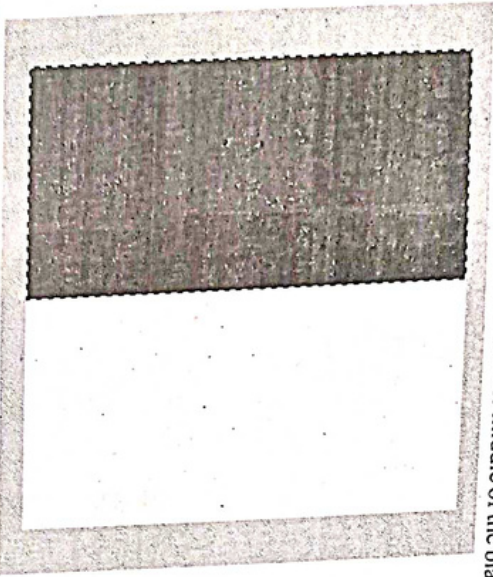
Magic Wand Tool



The Magic Wand tool looks for pixels which are of the same color and tone. This means it's great for selecting large, solid blocks of color but when working on images where the difference between colors and tone isn't as obvious it can seem, to start with, that the Magic Wand tool isn't a great tool. However, by making a few minor adjustments, you'll see it can be a useful tool to know how to use.

### 1.1.2 How to use Magic Wand Tool

The tool simply works by you clicking in the area you want selecting. For example, in the example with the selection around the black rectangle, we clicked in the middle of the black part of the shape.

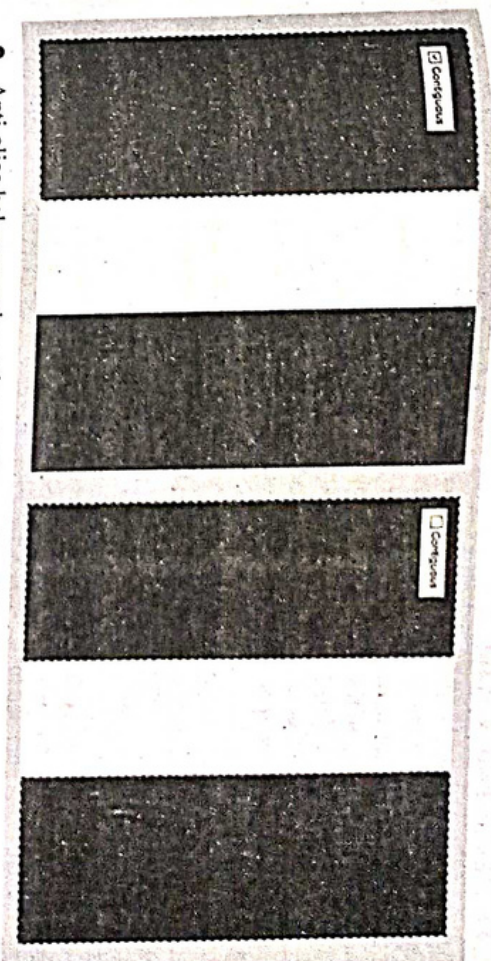


To make the tool more useful, adjust the Tolerance which you can find in the option bar towards the top of the screen.



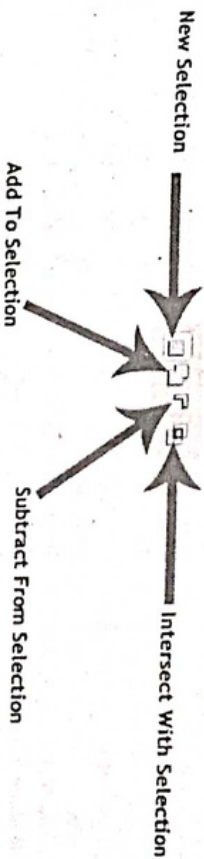
- **Tolerance** tells Photoshop how many pixels it needs to select that are the same color as what you have clicked on and the shades which are darker or lighter by whatever number you've typed in the Tolerance box. So if you type 100 Photoshop will select any pixels which are up to 100 shades lighter and down to pixels which are 100 shades darker.
- **Contiguous** is automatically selected by Photoshop but this option stops any pixels that fall into the tolerance range you've chosen getting selected if they have a pixel in between them that doesn't fall in to the range.

To explain this, take a look at our shape. There are two black sections separated by a white line. We want to select both black areas so we select the Magic Wand tool and click on the one on the left but as Contiguous is ticked, Photoshop only selects the shape on the left as the white pixels in the center are stopping the right black shape becoming part of the selection. Untick Contiguous and both shapes now become part of the selection when we click on the left shape.



- **Anti-alias** helps smooth out the selection and by ticking Sample All Layers you are telling Photoshop you want it to include all of the layers in your document within the selection. Leave it unticked and it will just make the selection on the layer you have selected.

The four shapes found to the left of the same option bar allow you to adjust your selection but after you've used the first option (New Selection) Photoshop will automatically select the second (Add To Selection) as you'll want to keep adding parts of the image until all you want selected has runants around it.



So, looking left to right at the shapes: the first option lets you create a New Selection and the second option, Add To Selection, lets you expand / add the selection you've just created. The third option, Subtract From Selection, lets you remove some of the selection and the final option, Intersect With Selection, will look at your original selection then at the new selection you've just made and only keep the selection where both adjustments overlap or intersect.

Finally there's Refine Edge which will give you a menu of options that you can further adjust your selection's boundary with. It also allows you to view the selection against various masks and backgrounds.

Photoshop has plenty of powerful built-in Filters. Apply special visual effect to your images using Filters. Look at the long list in the drop down menu sample to the left.

A very effective way to learn Filters is to play with them. Start with a few that sound familiar to you. Before you use any of the filters, create an image in your mind's eye of what you expect to see. This is important for building your skills and your mental reference library.

Filters is use to clean up or retouch your photos, apply special art effects that give your image the appearance of a sketch or impressionistic painting, or create unique transformations using distortions and lighting effects.

The filters provided by Adobe appear in the Filter menu. Some filters provided by third-party developers are available as plug-ins. Once installed, these plug-in filters appear at the bottom of the Filter menu.

### 1.2.1 Applying Filter

Smart Filters, applied to Smart Objects, let you use filters non-destructively. Smart Filters are stored as layer effects in the Layers panel and can be readjusted at any time, working from the original image data contained in the Smart Object.

To use a filter, choose the appropriate submenu command from the Filter menu. The guidelines can help you in choosing filters:

- Filters are applied to the active, visible layer or a selection.
- For 8 bits-per-channel images, most filters can be applied cumulatively through the Filter Gallery. All filters can be applied individually.
- Filters cannot be applied to Bitmap-mode or indexed-color images.
- Some filters work only on RGB images.
- All filters can be applied to 8 bit images.
- The following filters can be applied to 16 bit images:

1. Liquify.	2. Vanishing Point	3. Average Blur
4. Blur, Blur More	5. Box Blur	6. Gaussian Blur
7. Lens Blur	8. Motion Blur	9. Radial Blur
10. Surface Blur	11. Shape Blur	12. Lens Correction/Despeckle
13. Add Noise.	14. Dust & Scratches.	15. Median.
16. Reduce Noise.	17. Fibers.	18. Clouds.
19. Difference Clouds.	20. Lens Flare.	21. Sharpen Edges,
22. Sharpen More.	23. Sharpen Smart Sharpen	

- The following filters can be applied to 32 bit images:

1. Average Blur.	2. Box Blur.	3. Gaussian Blur
4. Motion Blur	5. Radial Blur.	6. Shape Blur.
7. Surface Blur.	8. Add Noise.	9. Clouds.
10. Lens Flare.	11. Smart Sharpen.	12. Unsharp Mask.
13. De-Interlace.	14. NTSC Colors.	

## FILTERS AND LAYERS

- Some filters are processed entirely in RAM. If you don't have enough available RAM to process a filter effect, you may get an error message.

### 1.2.2 Apply a filter from the Filter menu

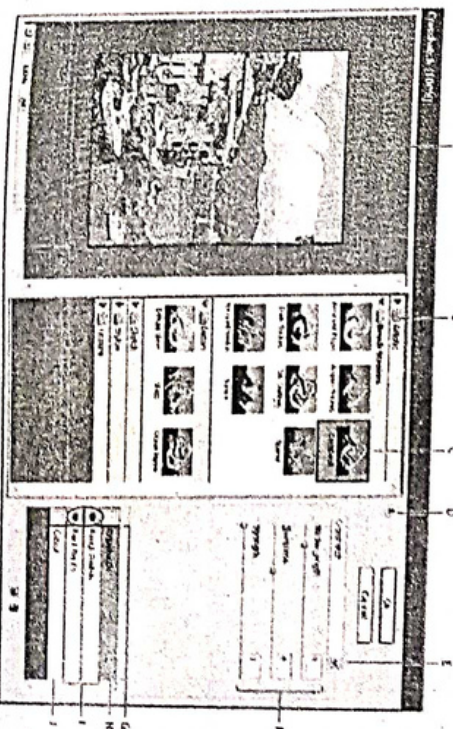
You can apply a filter to the active layer, or to a Smart Object. Filters applied to a Smart Object are nondestructive and can be readjusted at any time.

1. Do one of the following:
  - To apply a filter to an entire layer, make sure the layer is active or selected.
  - To apply a filter to an area of a layer, select that area.
  - To apply a filter non-destructively so you can change your filter settings later, select the Smart Object that contains the image content you want to filter.
2. Choose a filter from the submenus in the Filter menu. If no dialog box appears, the filter effect is applied.
3. If a dialog box or the Filter Gallery appears, enter values or select options, and then click OK.

Applying filters to large images can be time consuming, but you can preview the effect in the filter dialog box. Drag in the preview window to center a specific area of the image. In some filters, you can click in the image to center it where you click. Click the + or - button under the preview window to zoom in or out.

### 1.2.3 Apply filters from the Filter Gallery

The Filter Gallery provides a preview of many of the special effects filters. You can apply multiple filters, turn on or off the effect of a filter, reset options for a filter, and change the order in which filters are applied. When you are satisfied with the preview, you can then apply it to your image. Not all filters in the Filter menu are available in the Filter Gallery.



Filter Gallery dialog box

- A. Preview
- B. Filter category
- C. Thumbnail of selected filter
- D. Show/Hide filter thumbnails
- E. Filters pop up menu
- F. Options for selected filter
- G. List of filter effects to apply or arrange
- H. Filter effect selected but not applied
- I. Filter effects applied cumulatively but not selected
- J. Hidden filter effect

### Display the Filter Gallery

- Choose Filter > Filter Gallery. Clicking a filter category name displays thumbnails of available filter effects.

### Zoom in or out of the preview



- Click the + or - button under the preview area, or choose a zoom percentage.

### View another area of the preview


- Drag in the preview area with the Hand tool

### Hide filter thumbnails


- Click the Show/Hide button at the top of the gallery. Filter effects are applied in the order you select them. You can rearrange filters after you apply them by dragging a filter name to another position in the list of applied filters. Rearranging filter effects can dramatically change the way your image looks.

Click the eye icon  next to a filter to hide the effect in the preview image. You can also delete applied filters by selecting the filter and clicking the Delete Layer icon .

To save time when trying various filters, experiment by selecting a small, representative part of your image:

1. Do one of the following:
  - To apply a filter to an entire layer, make sure that the layer is active or selected.
  - To apply a filter to an area of a layer, select that area.
  - To apply a filter non-destructively, so you can change your filter settings later, select the Smart Object that contains the image content that you want to filter.
2. Choose Filter > Filter Gallery.
3. Click a filter name to add the first filter. You may need to click the inverted triangle next to the filter category to see the complete list of filters. Once added, the filter appears in the applied filter list in the lower right corner of the Filter Gallery dialog box.
4. Enter values or select options for the filter you selected.
5. Do any of the following:
  - To apply filters cumulatively, click the New Effect Layer icon  and choose an additional

## FILTERS AND LAYERS

- filter to apply. Repeat this procedure to add more filters.
- To rearrange applied filters, drag the filter to a new position in the applied filter list in the lower right corner of the Filter Gallery dialog box.
- To remove applied filters, select a filter in the applied filter list, and click the Delete Layer icon .
- 6. When you're satisfied with the results, click OK.

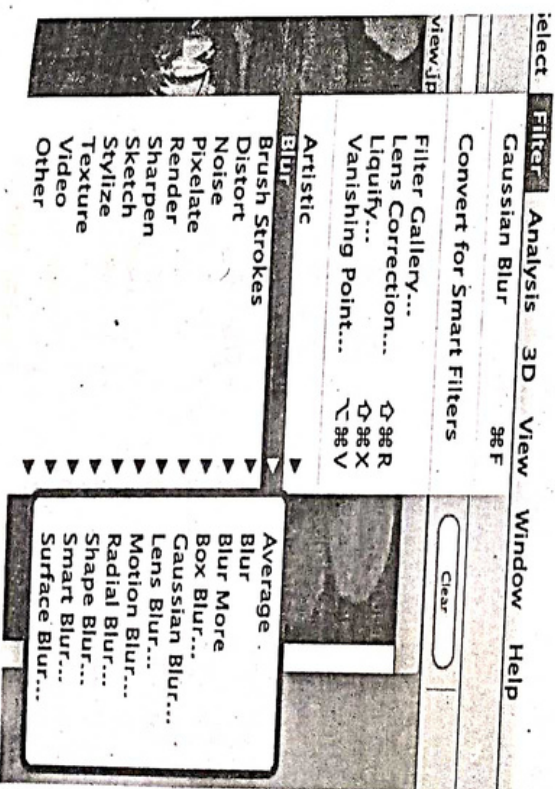
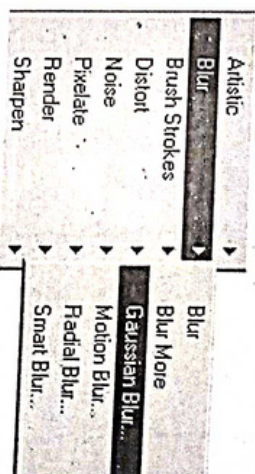
### 1.2.4 Effects of Filter

#### 1.2.4.1 Blur Filter effect

The plain Blur and Blur More have no controls. Use Gaussian Blur, it has controls and a real-time preview. In Windows "... " after a menu selection indicate further options such as a dialog box or controls. The following options all launch control windows.

- Motion Blur...
- Radial Blur...
- Smart Blur...

Try these functions on your own. They will probably help solve some graphic conundrum in the near future.



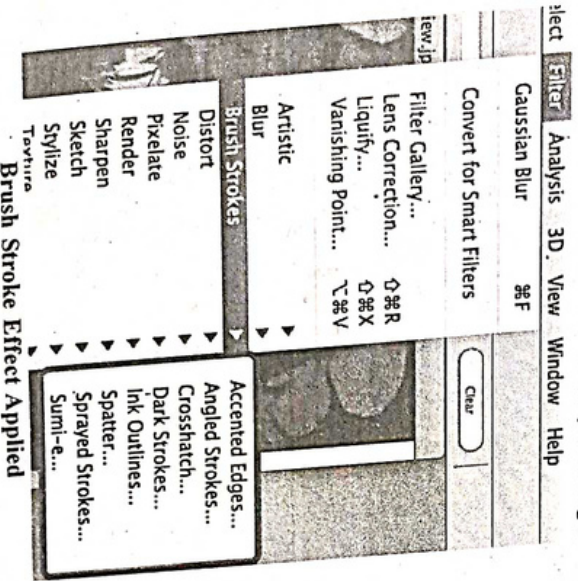




Applied Blur effect

1.2.4.2 Brush Stroke Effects

These effects create different artistic brush strokes across your image.

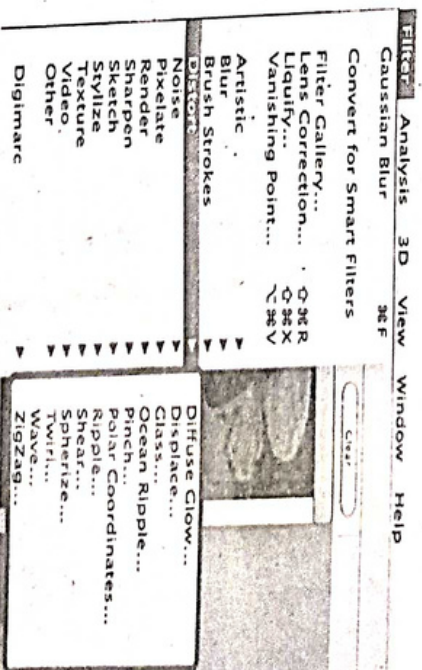


Brush Stroke Effect Applied



1.2.4.3 Distort effect

These effects will allow you to distort your image.

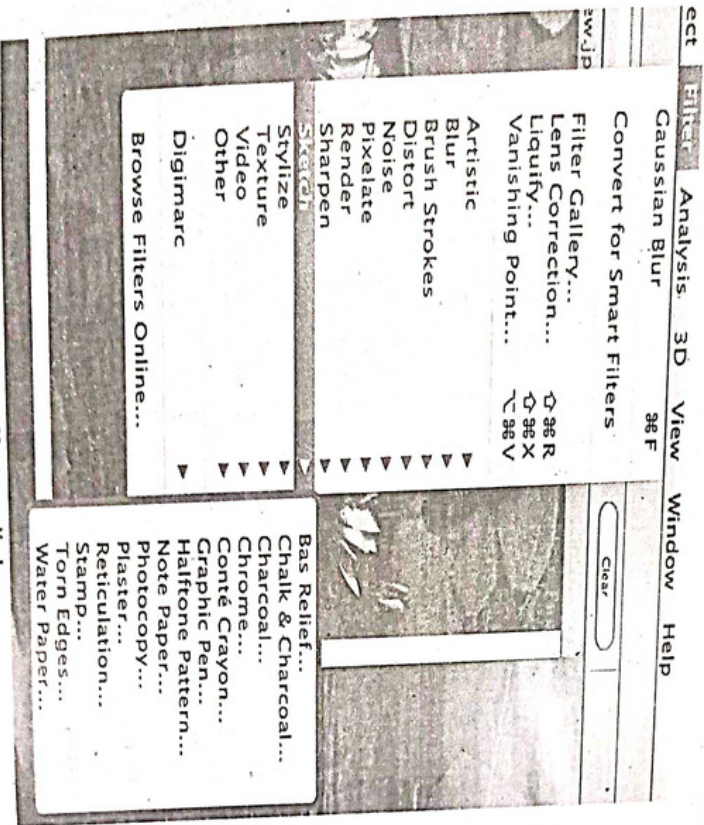


Applied distort effect

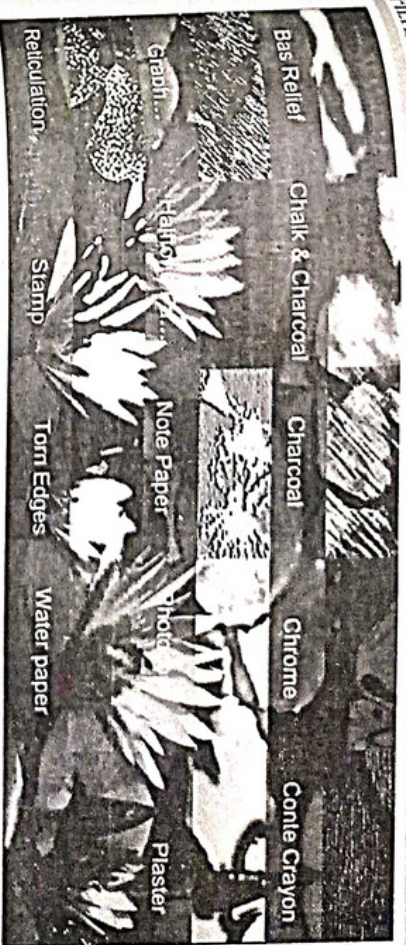


1.2.4.4 Sketch Effects:

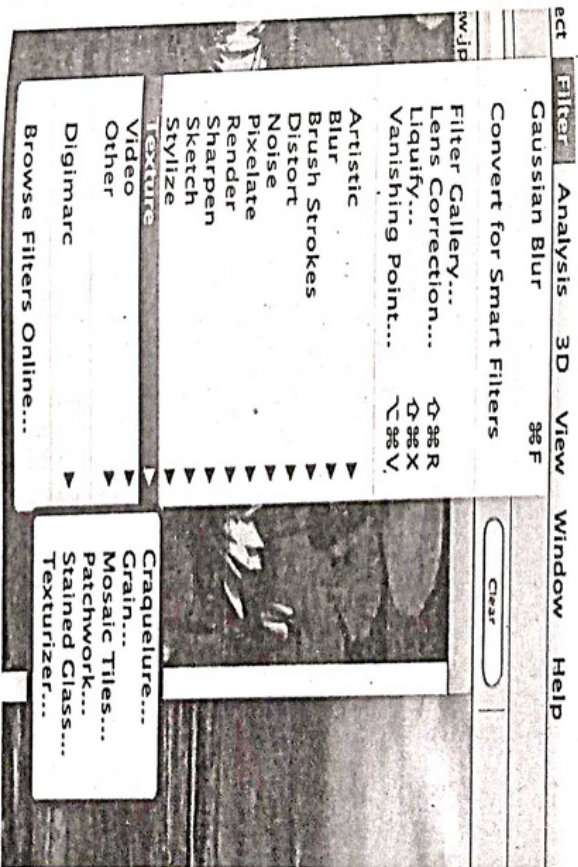
These effects will make your image look like it was sketched through the use of different sketching techniques.



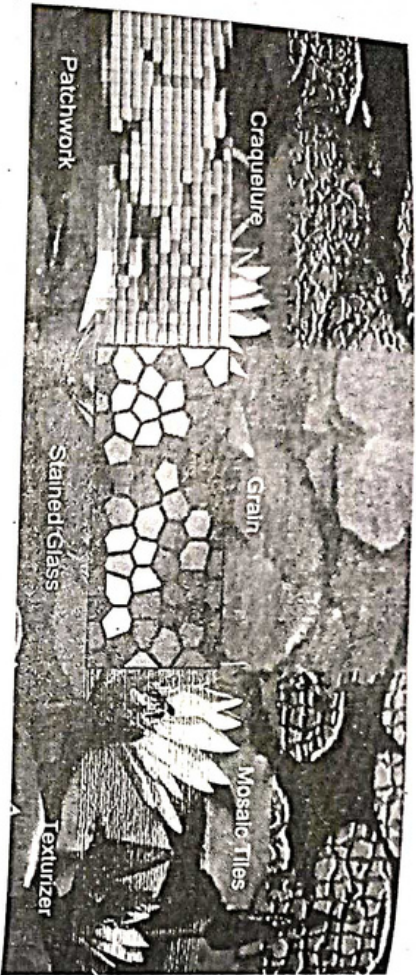
Sketch effect applied



1.2.4.5 Texture Effect



Applied Texture effect



### 1.2.4.6 Blend and Fade effects

The Fade command changes the opacity and blending mode of any filter, painting tool, erasing tool, or color adjustment. The Fade command blending modes are a subset of those in the painting and editing tools options. Applying the Fade command is similar to applying the filter effect on a separate layer and then using the layer opacity and blending mode controls.

1. Apply a filter, painting tool, or color adjustment to an image or selection.
2. Choose Edit > Fade. Select the Preview option to preview the effect.
3. Drag the slider to adjust the opacity.
4. Choose a blending mode from the Mode menu.
5. Click OK.

### 1.2.5 Tips for Creating Special Effects From Filters

#### • Creating edge effects

You can use various techniques to treat the edges of an effect applied to only part of an image. To leave a distinct edge, simply apply the filter. For a soft edge, feather the edge, and then apply the filter. For a transparent effect, apply the filter, and then use the Fade command to adjust the selection's blending mode and opacity.

#### • Applying filters to layers

You can apply filters to individual layers or to several layers in succession to build up an effect. For a filter to affect a layer, the layer must be visible and must contain pixels—for example, a neutral fill color.

#### • Applying filters to individual channels

You can apply a filter to an individual channel, apply a different effect to each color channel, or

## FILTERS AND LAYERS

apply the same filter but with different settings.

### • Creating backgrounds

By applying effects to solid color or grayscale shapes, you can generate a variety of backgrounds and textures. You might then blur these textures. Although some filters have little or no visible effect when applied to solid colors (for example, Glass), others produce interesting effects.

### • Combining multiple effects with masks or duplicate images

Using masks to create selection areas gives you more control over transitions from one effect to another. For example, you can filter the selection created with a mask.

You can also use the History Brush tool to paint a filter effect onto part of the image. First, apply the filter to an entire image. Next, step back in the History panel to the image state before the filter was applied, and set the history brush source to the filtered state by clicking in the well at the left side of the history state. Then paint the image.

### • Improving image quality and consistency

You can disguise faults, alter or enhance images, or create a relationship among images by applying the same effect to each. Use the Actions panel to record the steps you take to modify one image, and then apply this action to the other images.

### 1.2.6 Improve Filter Performance

Some filter effects can be memory-intensive, especially when applied to a high-resolution image.

You can do any of the following to improve performance:

- Try out filters and settings on a small portion of an image.
- Apply the effect to individual channels—for example, to each RGB channel—if the image is large and you're having problems with insufficient memory.
- Allocate more RAM to Photoshop. If necessary, exit other applications to make more memory available to Photoshop.
- Try changing settings to improve the speed of memory-intensive filters, such as Lighting Effects, Cutout, Stained Glass, Chrome, Ripple, Spatter, Sprayed Strokes, and Glass filters. (For example, with the Stained Glass filter, increase cell size. With the Cutout filter, increase Edge Simplicity, decrease Edge Fidelity, or both.)
- If you plan to print to a grayscale printer, convert a copy of the image to grayscale before applying filters. However, applying a filter to a color image, and then converting to grayscale, may not have the same effect as applying the filter to a grayscale version of the image.

## 2. ABOUT LAYER

Every Photoshop file contains one or more layers. New files are generally created with a background layer, which contains a color or an image that shows through the transparent areas of subsequent layers. All new layers in an image are transparent until you add text or artwork (pixel values).

Working with layers is analogous to placing portions of a drawing on clear sheets of film, such as those viewed with an overhead projector: Individual sheets may be edited, repositioned, and deleted

without affecting the other sheets. When the sheets are stacked, the entire composition is visible.

### 2.1 GETTING STARTED LAYER

You'll start the lesson by viewing an image of the final composition.

1. Start Photoshop, and then immediately hold down **Ctrl+Alt+Shift** to restore the default preferences.
2. When prompted, click **Yes** to delete the Adobe Photoshop Settings file.
3. Click the **Mini Bridge** tab to open the **Mini Bridge** panel. If **Bridge** isn't running in the background, click **Launch Bridge**.
4. In the **Mini Bridge** panel, choose **Favorites** from the pop-up menu on the left.
5. In the **Favorites** panel, double-click the **Lessons** folder.
6. In the **Content** panel, select the any .psd file. Press the spacebar for a full screen view. This layered composite represents a postcard. You will create it now and in **doingso** learn how to create, edit and manage layers.
7. Press the spacebar again to return to the **Mini Bridge** panel and then double click the **04Start.psd** file to open it in **Photoshop**.
8. Choose **File > Save As**, rename the file **Working.psd** (as example), and click **Save**. **ClickOK** if you see the **Photoshop Format Options** dialog box.

Saving another version of the start file frees you to make changes without worrying about overwriting the original.

### 2.2 USING THE LAYERS PANEL

The **Layers** panel lists all the layers in an image, displaying the layer names and thumbnails of the content on each layer. You can use the **Layers** panel to hide, view, reposition, delete, rename and merge layers. The layer thumbnails are automatically updated as you edit the layers.

If the **Layers** panel is not visible in the work area, choose **Window > Layers**. The **Layers** panel lists five layers: **Postage**, **HAWAII**, **Flower**, **Pineapple** and **Background**.

2 Select the **Background** layer to make it active.

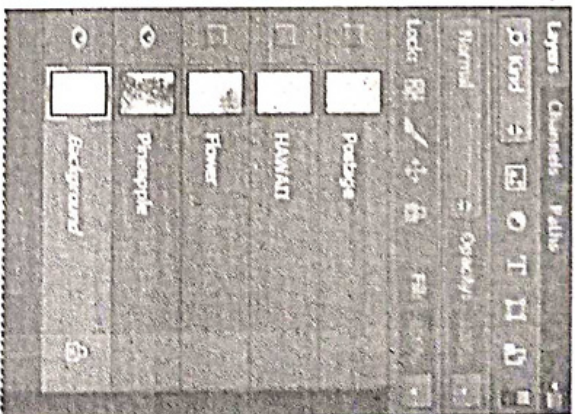
Notice the layer thumbnail and the icons on the **Background** layer level:

- The lock icon ( ) indicates that the layer is protected.
- The eye icon ( ) indicates that the layer is visible in the image window.

If you click the eye the image window no longer displays that layer.

The first task for this project is to add a photo of the beach to the postcard. First you'll open the beach image in **Photoshop**.

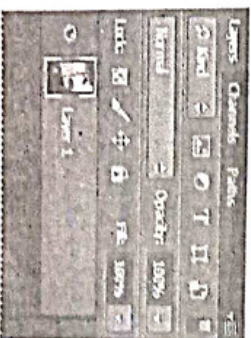
**Note:** Use the context menu to hide or resize the layer thumbnail. Right-click a thumbnail in the **Layers** panel to open the context menu and then choose a thumbnail size.



The **Layers** panel changes to display the layer information for the active **Beach.psd** file. Notice that only one layer appears in the **Beach.psd** image:

Layer 1, not **Background**.

About the **background** layer



When you create a new image with a white or colored background, the bottom layer in the Layers panel is named Background. An image can have only one background. You cannot change the stacking order of a background layer; its blending mode, or its opacity.

You can, however, convert a background layer to a regular layer. When you create a new image with transparent content, the image doesn't have a background layer. The bottom layer isn't constrained like the background layer; you can move it anywhere in the Layers panel and change its opacity and blending mode.

To convert a background layer into a regular layer:

1. Double-click the name Background in the Layers panel or choose Layer > New > Layer From Background.
2. Rename the layer and set any other layer options.
3. Click OK.

To convert a regular layer into a background layer:

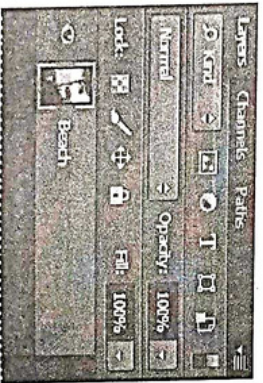
1. Select a layer in the Layers panel.
2. Choose Layer > New > Background From Layer.

### 2.3 RENAMING AND COPYING A LAYER

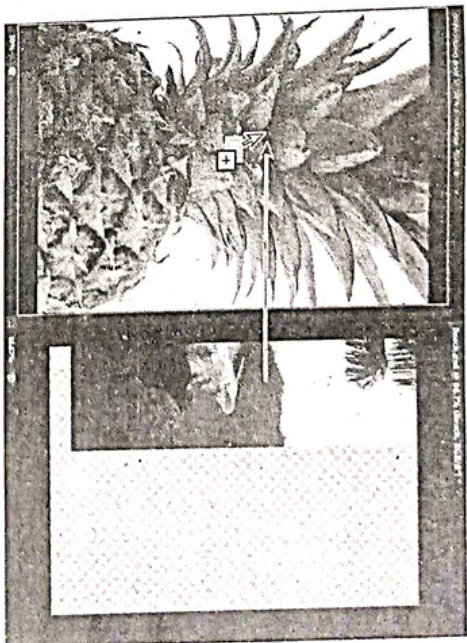
To add content to an image and simultaneously create a new layer for it, drag an object or layer from one file into the image window of another file. Whether you drag from an image window of the original file or from its Layers panel, only the active layer is reproduced in the destination file.

You'll drag the Beach.psd image onto the Working.psd file. Before you begin make sure that both the Working.psd and Beach.psd files are open, and that the Beach.psd file is selected.

1. First, you'll give Layer 1 a more descriptive name.
  1. In the Layers panel, double-click the name Layer 1, type Beach and then pressEnter or Return. Keep the layer selected.

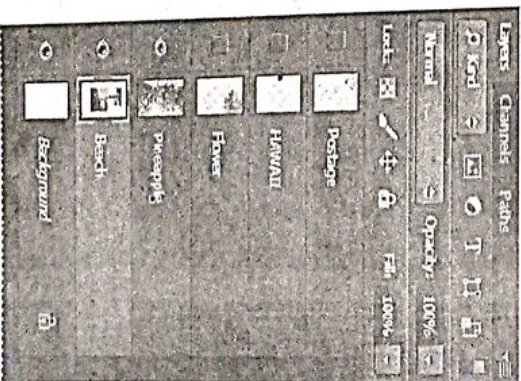
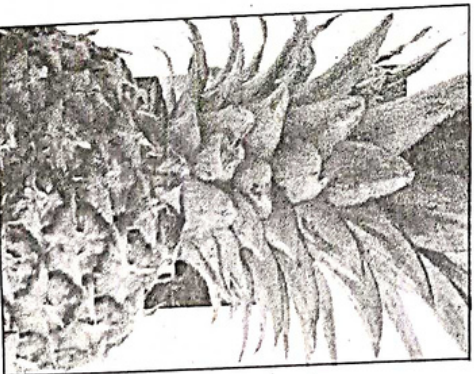


2. Choose Window > Arrange > 2-Up Vertical. Photoshop displays both of the open image files. Select the Beach.psd image so that it is the active file.
3. Select the Move tool ( ) and use it to drag the Beach.psd image onto the 04 Working.psd image window.



**Note:** If you hold down Shift as you drag an image from one file into another, the dragged image automatically centers itself in the target image window.

The Beach layer now appears in the Working.psd file image window and its Layers panel, between the Background and Pincapple layers. Photoshop always adds new layers directly above the selected layer; you selected the Background layer earlier.

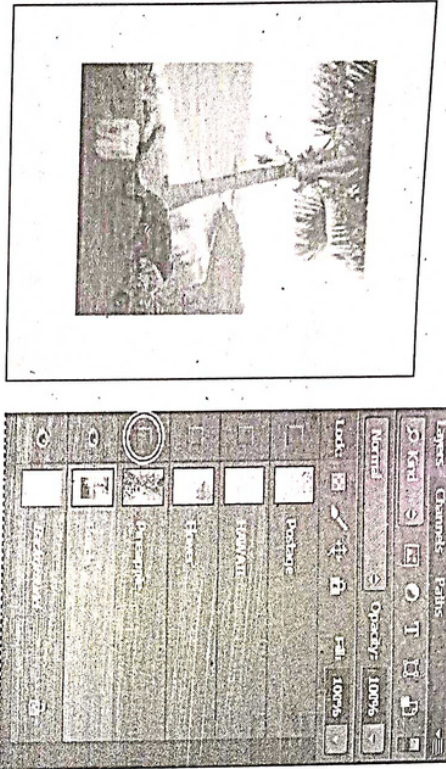


4. Close the Beach.psd file without saving changes to it.
5. Double-click the Mini Bridge tab to close the panel.

**2.4 Viewing Individual Layers**

The Working.psd file now contains six layers. Some of the layers are visible and some are hidden. The eye icon ( ) next to a layer thumbnail in the Layers panel indicates that the layer is visible.

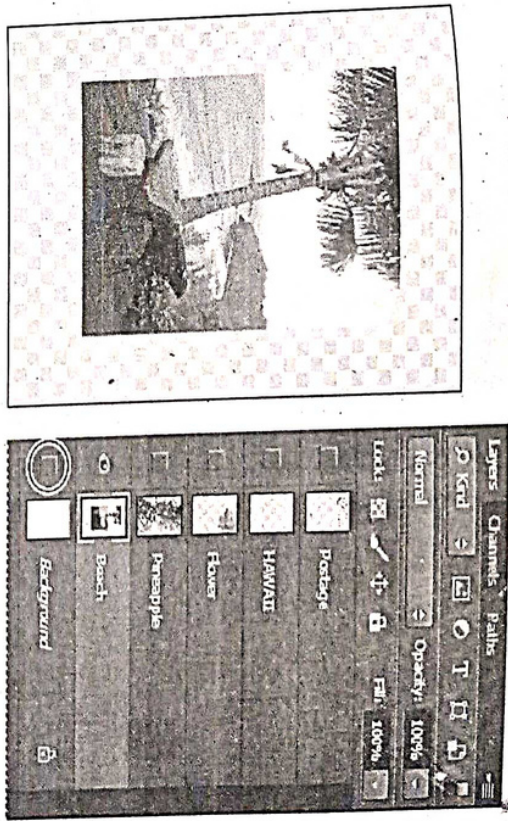
1. Click the eye icon ( ) next to the Pineapple layer to hide the image of the You can hide or show a layer by clicking this icon or clicking in its column also called the Show/Hide Visibility column.
2. Click again in the Show/Hide Visibility column to display the pineapple.



**2.5 Adding a border to a Layer**

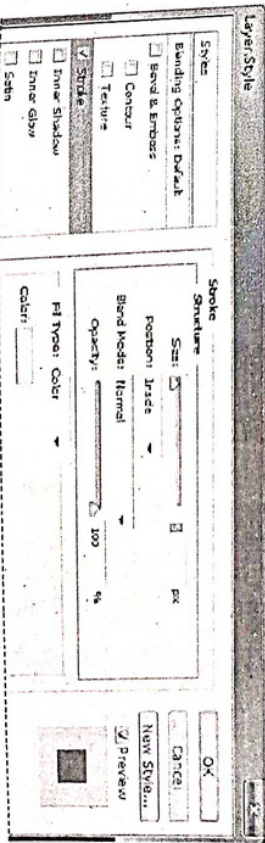
Now you'll add a white border around the Beach layer to create the impression that it's a photograph.

1. Select the Beach layer. The layer is highlighted, indicating that it is active. Changes you make in the image window affect the active layer.
2. To make the opaque areas on this layer more obvious, hide all layers except the Beach layer. Press as you click the eyeicon ( ) next to the Beach layer.

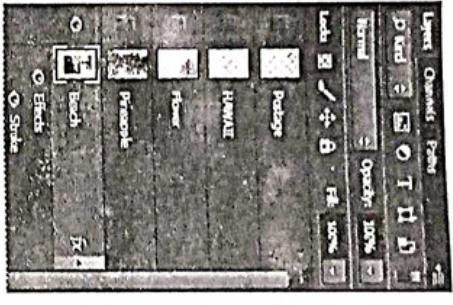
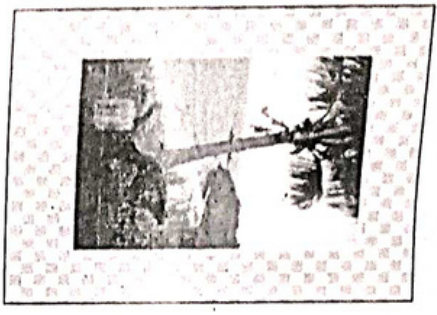


4 Specify the following settings:

- Size: In pixels.
- Position: (Inside or Outside)
- Blend Mode: Normal
- Opacity: 100%(any)
- Color: White (Click the Color box, and select white in the Color Picker.)

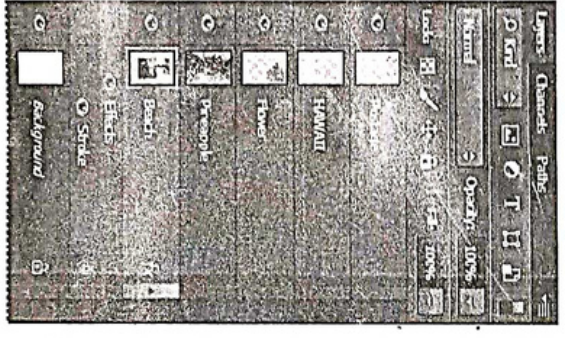


5. Click OK. A white border appears around the beach photo.



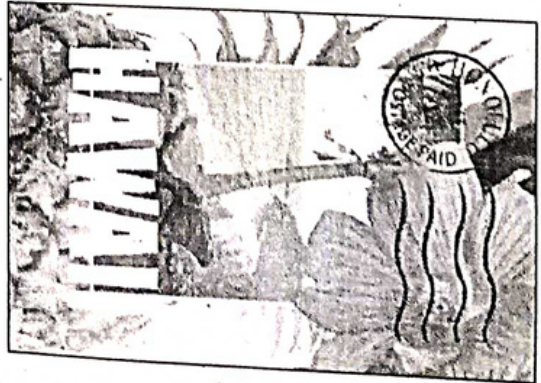
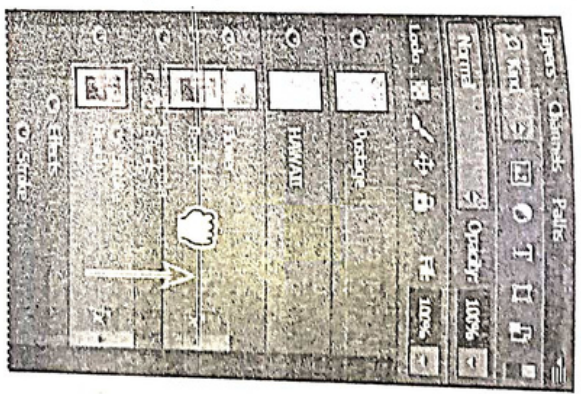
2.6 REARRANGING LAYERS

The order in which the layers of an image are organized is called the stacking order. The stacking order determines how the image is viewed you can change the order to make certain parts of the image appear in front of or behind other layers. You'll rearrange the layers so that the beach image is in front of another image that is currently hidden in the file.



FILTERS AND LAYERS

1. Make the Postage, HAWAII, Flower, Pineapple and Background layers visible by clicking the Show/Hide Visibility column next to their layer names. The beach image is almost entirely blocked by images on other layers.
2. In the Layers panel, drag the Beach layer up so that it is positioned between the Pineapple and Flower layers-when you've positioned it correctly, you'll see a thick line between the layers in the panel-and then release the mouse button.



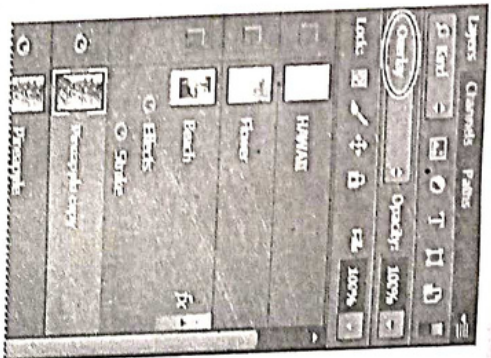
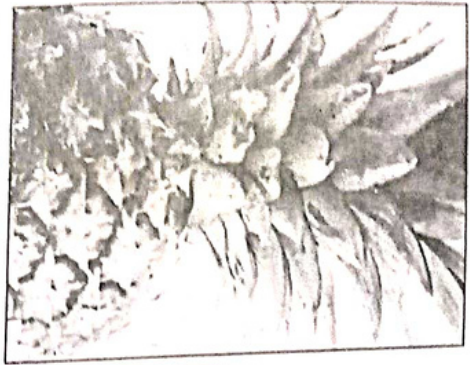
The Beach layer moves up one level in the stacking order, and the beach image appears on top of the pineapple and background images, but under the flower and "HAWAII."

Note: You can also control the stacking order of layered images by selecting them in the Layers panel and choosing Layer > Arrange, and then choosing Bring To Front, Bring Forward, Send To Back, or Send Backward.

2.6 CHANGING THE OPACITY OF A LAYER

You can reduce the opacity of any layer to let other layers show through it. In this case, the postmark is too dark on the flower. You'll edit the opacity of the Postage layer to let the flower and other images show through.

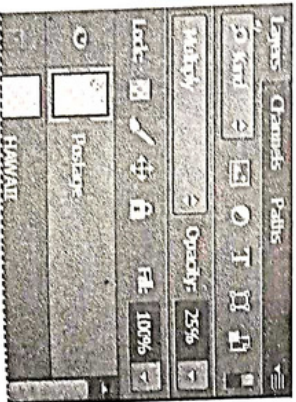
- 1 Select the Postage layer, and then click the arrow next to the Opacity box to display the Opacity slider. Drag the slider. You can also type the value in the Opacity box or scrub the Opacity label.



The Overlay blending mode blends the Pineapple copy layer with the Pineapple layer beneath it to create a vibrant, more colorful pineapple with deeper shadows and brighter highlights.

4. Select the Postage layer, and choose multiply from the Blending Modes menu.

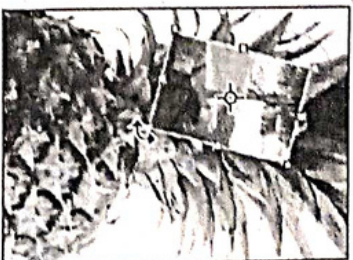
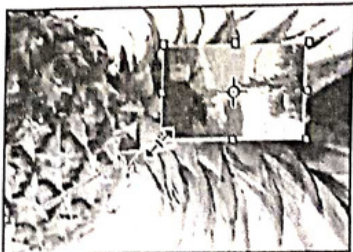
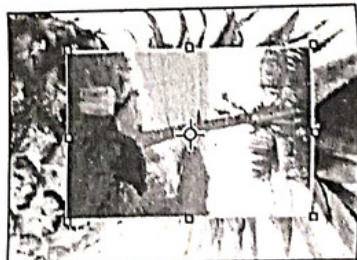
The Multiply blending mode multiplies the colors in the underlying layers with the color in the top layer. In this case, the postmark becomes a little stronger.



5. Choose File > Save to save your work. Resizing and rotating layers. You can resize and transform layers.

- 1 Click the Visibility column on the Beach layer to make it visible.
- 2 Select the Beach layer in the Layers panel, and then choose Edit > Free Transform. A Transform bounding box appears around the beach image. The bounding box has handles on each corner and each side.

- 3 Press Shift as you drag a corner handle inward to scale the beach photo down by about 50%.
- 4 With the bounding box still active, position the pointer just outside one of the corner handles until it becomes a curved double arrow. Drag it.



- 5 Click the Commit Transform button (✓) in the options bar.
- 6 Choose File > Save.

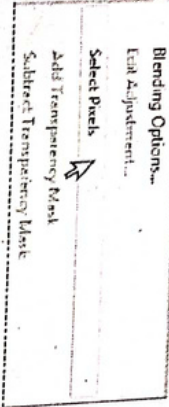
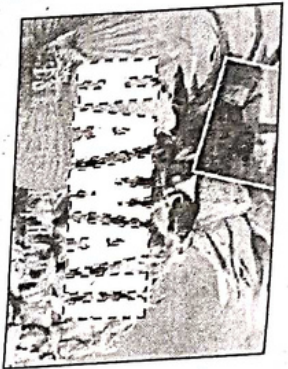
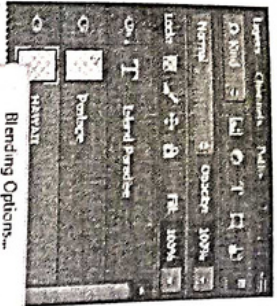


## 2.7 Applying a gradient to a layer

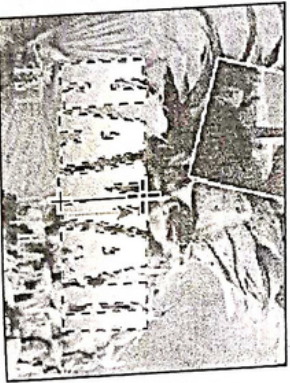
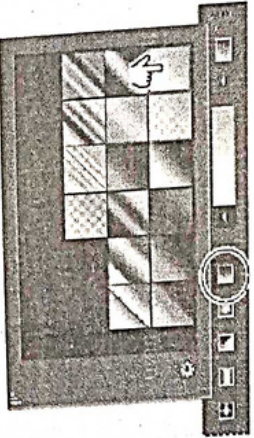
You can apply a color gradient to all or part of a layer. Select the letters and then you'll apply the gradient.

- 1 Select the HAWAII layer in the Layers panel to make it active.
- 2 Right-click or Control-click the thumbnail in the HAWAII layer, and choose Select Pixels. Everything on the HAWAII layer (the white lettering) is selected.





- Now that you've selected the area to fill, you'll apply a gradient.
- In the Tools panel, select the Gradient tool ( ).
  - Click the Foreground Color swatch in the Tools panel, select a bright color of orange in the Color Picker, and click OK. The Background Color should still be white.
  - In the options bar, make sure that Linear Gradient ( ) is selected.
  - In the options bar, open the gradient picker. Select the Foreground To Background swatch, and then click anywhere outside the gradient picker to close it.
  - With the selection still active, drag the Gradient tool from the bottom to the top of the letters. If you want to be sure you drag straight up, press the Shift key as you drag.
- Note:** To list the gradient options by name rather than by sample, click the gradient picker menu button, and choose either Small List or Large List. Or hover the pointer over a thumbnail until a tool tip appears, showing the gradient name.



The gradient extends across the type starting with orange at the bottom and gradually blending to white at the top.

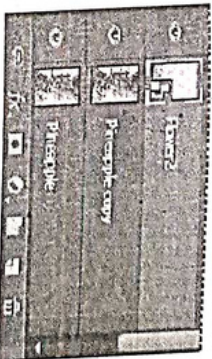
- Choose Select > Deselect to deselect the HAWAII type.
- Save the work you've done so far.

### 2.8 Adding an Adjustment Layer

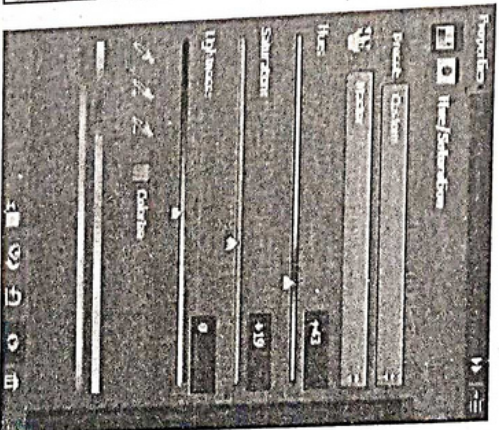
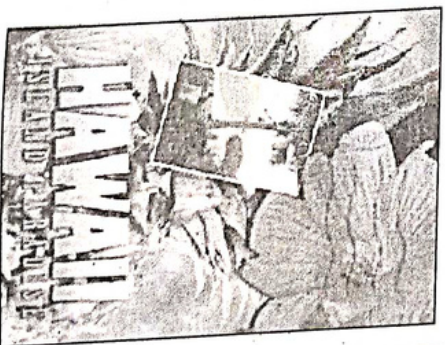
Adjustment layers can be added to an image to apply color and tonal adjustments without permanently changing the pixel values in the image. If you decide to return to the original pixel values, you can hide or delete the adjustment layer.

An adjustment layer affects all layers below it in the image's stacking order unless a selection is active when you create it or you create a clipping mask.

- Select the Flower2 layer in the Layers panel.
- Click the Hue/Saturation icon in the Adjustments panel to add a Hue/Saturation adjustment layer.

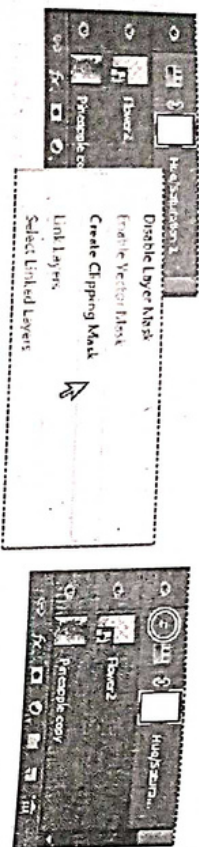


- In the Properties panel, apply the any settings.



The changes affect the Flower2, Pineapple Copy, Pineapple, Clouds, and Background layers. The effect is interesting, but you only want to change the Flower 2 layer.

- Right-click Hue/Saturation adjustment layer, and choose Create Clipping Mask.




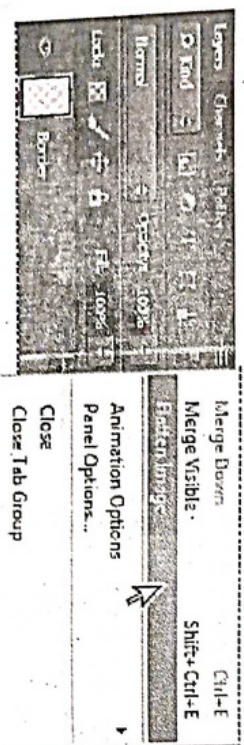
An arrow appears in the Layers panel indicating that the adjustment layer applies only to the Flower2 layer.

## 2.10 FLATTENING AND SAVING FILES

When you finish editing all the layers in your image, you can merge or flatten layers to reduce the file size. Flattening combines all the layers into a single background layer. However you cannot edit layers once you've flattened them, so you shouldn't flatten an image until you are certain that you're satisfied with all your design decisions. Rather than flattening your original PSD files, it's a good idea to save a copy of the file with its layers intact, in case you need to edit a layer later.

To appreciate what flattening does, notice the two numbers for the file size in the status bar at the bottom of the image window. The first number represents what the file size would be if you flattened the image. The second number represents the file size without flattening. This lesson file if flattened would be about 2.29 MB, but the current file is actually much larger about 27 MB. So flattening is well worth it in this case.

- 1 Select any tool but the Type tool (  ), to be sure that you're not in text-editing mode. Then choose File > Save (if it is available) to be sure that all your changes have been saved in the file.
- 2 Choose Image > Duplicate.
- 3 In the Duplicate Image dialog box, name the file, and click OK.
- 4 Leave the 04Flat.psd file open but close the 04Working.psd file.
- 5 Choose Flatten Image from the Layers panel menu. Only one layer named Background, remains in the Layers panel.



- 6 Choose File > Save. Even though you chose Save rather than Save As, the Save As dialog box appears.

## FILTERS AND LAYERS

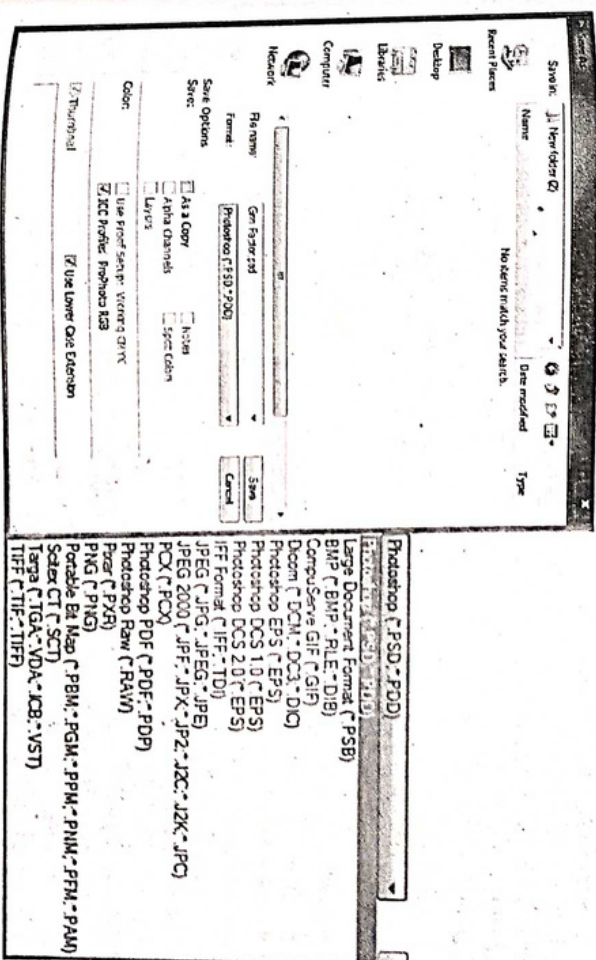
- 7 Make sure the location of folder, and then click Save to accept the default settings and save the flattened file.  
You have saved two versions of the file: a one-layer, flattened copy as well as the original file, in which all the layers remain intact.

### 3. SAVING YOUR WORK

When you need to save your work you will go to the File menu and choose Save or Save As. Save: If the file has been saved previously the file will be updated. If the document has not been previously saved you will see the same dialogue box as if you had pressed Save As.

Save As: This command brings up a dialogue box where you can name the file choose the properties that you wish to be included in the file and also choose the file format.

When you click on the Format drop down menu in the "Save As" dialogue box you will notice that photoshop allows you to save your file in many different formats. Some of these formats are now redundant and are only there to provide backwards compatibility. Others are specialist formats used in areas such as medical imaging. In reality you only need to know a few of these formats the number depends on the type of work you are doing.



### 3.1.1 PSD : (Photoshop Document)

Of all the file formats that Photoshop supports, the PSD format is probably the most important. PSD stands for "Photoshop Document" and as the name implies it's Photoshop's native file format. PSD is one of the few file types that fully support all of the powerful features that Photoshop offers, like layers, layer masks, adjustment layers, channels, paths and so on. It also serves as your working file. When we open an image in Photoshop regardless of which file type the image was originally using Photoshop temporarily converts it into a PSD file behind the scenes so we can work on it with all of Photoshop's tools, commands and features at our disposal.

PSD files are your best choice to serve as your master files and for archiving to CD, DVD or an external hard drive for safe keeping. If you've done any sort of editing work on an image and there's even the slightest chance you'll need to come back to it again at some point in the future, save your work as a Photoshop PSD file. There's no loss in image quality no matter how many times you re-open and re-save a PSD and all of your layers, layer masks, and adjustment layers and so on will be saved as part of the file, allowing you to go back at any time and make changes to the image or continue working from where you left off.

You can easily print your images at home with Photoshop directly from the PSD file and many commercial printers are now able to accept PSDs as well although some may still require an EPS or TIFF version of the file instead, so it's always best to check with your printer to make sure you're giving them the format they need. One of the newer advantages with PSD files is that they can now be imported directly into Adobe InDesign, giving you complete access to the individual layers in the file as you're designing your page layouts. You can even re-open a PSD file in Photoshop directly from InDesign, make changes to the file, save it, and have the changes immediately update in your layout.

The only real disadvantage to PSD files is that the file size can get very large, especially if you're working on an image with hundreds or even thousands of layers. But with computer hard drives and memory being so cheap these days it's a small price to pay for the creative freedom that Photoshop and its native PSD file format give us. Bottom line, your PSD file is the most important file you can have, so be sure to save yourself a master copy of your work as a PSD file so you can always return to it in Photoshop when you need it.

This is Photoshop's native file format and if you only use Photoshop as you image editor, it's the one that will give you the most flexibility. It will retain all layers, adjustments and effects that you have applied to your image. This format also supports high bit depth files up to 32bits. The file sizes for high bit depth files can be extremely large so think carefully before you consider saving your image in anything other than 8 bits.

### 3.1.2 TIFF (Tagged Image File Format)

Like PSD files, TIFF (Tagged Image File Format) is one of the few file types that support all of Photoshop's features and is another great choice for archiving your images, with lossless compression that allows you to save photos with the highest possible image quality. The quality comes at a price though, as TIFF files can be very large, especially when compared with JPEG files. TIFF is the

universally accepted standard for images destined for commercial printing and is compatible with virtually all page layout programs like QuarkXPress and InDesign.

Even though TIFF files are capable of storing all of the layers, adjustment layers and other elements you've added in Photoshop, it's generally recommended that you save all those elements in your master PSD file, then use the TIFF format to save a flattened version of the image for print. This makes it easy to tell just from looking at the file extension which version of your image is the master working file (.psd) and which is the flattened, print-ready version (.tif). Also, many commercial printers will ask for a flattened version of your TIFF file.

Tagged-Image File Format (TIFF, TIF) has most of the same attributes as the PSD format (when opened in Photoshop). This format is useful for its compatibility with almost all software that will open image data. It also allows the use of several different compression methods to reduce the size of your file.

### 3.1.3 JPEG (Joint Photographic Expert Group)

The JPEG (Joint Photographic Expert Group) format has been around for nearly 20 years now and has become the most popular and widely used file format for viewing and sharing digital photos. It supports 24-bit color, which means it can reproduce roughly 16.7 million colors, and even the cheapest digital cameras can capture images as JPEG files. Most high end digital SLR cameras give you the option of capturing images in either the JPEG or RAW format.

It does this to reduce file size, but the more compression you use, the worse your images look. You control the amount of compression being applied to the file using the Quality setting that appears in Photoshop when you go to save it. A high enough Quality setting can still produce great looking images but your file size will be larger. Lower Quality settings can produce very small file sizes, but set too low and you'll introduce ugly and obvious compression artifacts.

The biggest strength of JPEG files is convenience. They're usually small enough that they can easily be uploaded and displayed on web pages, or on photo sharing sites like Facebook and Flickr, and emailed to family and friends. Online printing services usually require your photos to be uploaded as JPEG files. The downside to JPEGs is that the reduced quality caused by image compression means they're not a good choice for printing when image quality is your primary concern, and they're also not a good choice for archiving your originals.

If you're capturing JPEG files in your camera, make sure you're capturing the largest, highest quality images possible. Check your camera's instruction manual to find out where the image quality option is in your camera's menu system. The highest quality setting is usually labelled "Large".

One thing you want to avoid doing whenever possible is re-saving JPEG files repeatedly. Each time to open and re-save it, you'll add even more compression to the image, and it doesn't take long for things to get ugly. Once the image detail is gone, you can never get it back (unless of course you read the first part of this article and saved a master copy of the original as a Photoshop PSD file).

Joint Photographic Experts Group (JPEG, JPG) format is mostly used for images that will be displayed on screen or the web. This file format uses "Lossy" compression, which is to say, that data is lost during the compression process resulting in a much smaller file, but may also compromise image quality. If your camera only takes JPEG images then save the image as a PSD during the editing process, as repeatedly opening and saving JPEG images causes recompression of the images

and can severely degrade the data, resulting in very noticeable compression artefacts.

### 3.1.4 GIF (Graphics Interchange Format)

The GIF file format, which stands for Graphics Interchange Format, has been around even longer than JPEG, and it's the format of choice for web graphics. GIF files can only display up to 256 colors, far less than the thousands of colors needed to convincingly reproduce a photographic image (and far less still than the millions of colors supported by the JPEG format).

When it comes to web design, though, the GIF format is indispensable. The files are well suited for web page layouts, banners and buttons, especially if they contain large areas of solid color. All major web browsers support GIF files and their small file sizes load quickly on the screen. GIF also allows web designers to create simple animations. One major advantage GIF has over the JPEG format and another reason why it's so important for web designers is that it supports transparency, although it supports only one level of transparency, meaning a pixel is either transparent or it's not. This can result in harsh edges around graphics if the edge color differs from the color of the background, it's placed over. For higher quality transparency effects, a better choice is the PNG format.

Graphics Interchange Format (GIF) is used to display indexed color mode graphics. This file format may only contain 256 colors so it is not commonly used for photographs. However, it has several characteristics that have made it very popular in web graphics.

- Small file size
- Supports transparency
- Supports animation

### 3.1.5 PNG (Portable Network Graphics)

PNG (Portable Network Graphics) was originally meant to replace the GIF format (PNG also stands for "PNG not GIF"). That never happened and GIF files are still in wide use today, yet the PNG format improves upon the GIF format in nearly every way. It even improves on the JPEG format. While JPEG files support 24-bit color (16.7 million colors), PNG files support up to 48-bit color, giving us more than 1 billion possible colors! That may sound impressive, but even JPEG files support more colors than the human eye can see, so any real world differences between 24 and 48-bit color are minimal at best.

The biggest advantage over JPEG is that PNG is a lossless file format, meaning that even though it still compresses images to reduce file size, the compression method it uses does not result in a loss of image quality. You can even re-save the same PNG file multiple times without degrading its quality, whereas JPEG files look worse each time you re-save them. With over a billion possible colors and lossless compression, PNG is a great choice for saving digital photos as high quality originals. The downside, though, is that PNG is not as widely supported as the JPEG format, and PNG does not support CMYK color, which means commercial printers can't use them. For everyday viewing and sharing of your digital photos, the JPEG format is still more useful and convenient, even if the image quality isn't as good.

PNG's main advantage over GIF files, besides far exceeding GIF's 256 color limit, is that it can reproduce a full 256 levels of transparency compared with GIF's single level, giving us smooth transitions around edges without having to worry about matching the edges with the background

color. PNG files are also usually smaller than GIF files, so they'll load even faster in a web browser. Unfortunately, older web browsers may not support the PNG format, which means GIF is still the safest choice when browser compatibility is your main concern. Also, while GIF supports animations, PNG does not. PNG files are most often used in multimedia programs like Flash as well as Keynote and PowerPoint presentations.

Like the GIF format this format is commonly used for web graphics. The PNG format is a lot more flexible in its support for 24bit photographic images and alternative color modes than the GIF format. However, it is not as widely supported in web browsers.

### 3.1.6 PDF (Portable Document Format)

The Portable Document Format (PDF) is very useful for displaying files across multiple platforms and application. It has the benefit of supporting compression, 16bit format and common color modes, whilst retaining font, vector, raster information and Photoshop editing (if selected).

Finally, while most people are familiar with PDF files for viewing, sharing and printing electronic documents (hence the name Portable Document Format), PDF is also gaining in popularity as a great choice for saving images destined for print. Like the PSD and TIFF formats, PDF supports and preserves all of Photoshop's features, including the ability to use spot colors, something the EPS format does not support. PDF gives you the choice of either JPEG compression, complete with a Quality setting to balance image quality with file size, or lossless ZIP compression. And the PDF format benefits from the fact that anyone with the free Adobe Reader installed on their computer can view the image.

The most important thing to remember is to save your working Photoshop file as an unflatten PSD file to use as your master copy, which will preserve all of your layers, channels and so on in Photoshop's native file format, allowing you to return to your work at any time. From there, you can save a copy of your image in one of the other six formats depending on where the image is headed (print, the web, or a multimedia program) or which format your printer has requested.

## 4. SHORTCUT KEY USE IN PHOTOSHOP

### Shortcuts for selecting Tools

- \* Hold down "Shift" on the keyboard for each shortcut.
- \* Pressing the letter more than once will switch through the different tools in that icon.
- \* Hold down "Shift" on the keyboard and then press the letter "w" the "Magic Wand Tool" will be selected. Press "w" again and it will change it to the "Quick Selection Tool".

### Keys

Keys	Action
V	Move tool
M	Rectangular Marquee tool, Elliptical Marquee tool
L	Lasso tool, Polygonal Lasso tool, Magnetic Lasso tool
W	Magic Wand tool, Quick Selection tool
C	Crop tool
K	Slice tool, Slice Select tool

J	Spot Healing Brush tool, Patch tool, Red Eye tool
B	Brush tool, Pencil tool, ColorReplacement tool
S	Clone Stamp tool, Pattern Stamp tool
Y	History Brush tool, Art History Brush tool
E	Eraser tool, Background Eraser tool, Magic Eraser tool
G	Gradient tool, Paint Bucket tool
R	Blur tool
P	Pen tool
T	Horizontal Type tool, Vertical Type tool, Horizontal Type mask tool, Vertical Type mask tool
A	Path Selection tool
U	Rectangle tool, Rounded Rectangle tool, Ellipse tool, Polygon tool, Line tool

**Keys for using the Filter Gallery****Keys**

All-click a filter	Action
All-click a disclosure triangle	Apply a new filter on top of selected
Ctrl	Open/close all disclosure triangles
Alt	Change Cancel button to Default in Adobe Photoshop
Ctrl + Z	Change Cancel button to Reset
	Undo/Redo

**Exercise****VERY SHORT QUESTIONS:**

- Q1. What is filter?
- Q2. Write about blur filter in one line.
- Q3. What is full form of EPS?
- Q4. What does JPEG stands for?
- Q5. What is TIFF?
- Q6. What is short cut key for apply a new filter on top of selected one?
- Q7. What is short cut key for move tool and crop tool?

**SHORT QUESTIONS**

- Q1. How filter are useful in web designing?
- Q2. Explain how to apply filter from filter menu?
- Q3. How to apply filter from filter gallery?
- Q4. Write some important tips for applying filter.

**FILTERS AND LAYERS**

Q5. Write a short note on EPS (Encapsulated PostScript)

**LONG QUESTIONS :**

- Q1. What do you mean by magic wand tool? What is roll of magic wand in Photoshop? Write down all steps to use this tool with example.
- Q2. What is roll of filter in designing? Explain any five filter effects with steps and example.
- Q3. Write short notes on following file formats:
  - (a) PSD (Photoshop Document)
  - (b) TIFF (Tagged Image File Format)
  - (c) JPEG (Joint Photographic Expert Group)
  - (d) GIF (Graphics Interchange Format)
  - (e) PNG (Portable Network Graphics)
  - (f) PDF (Portable Document Format)

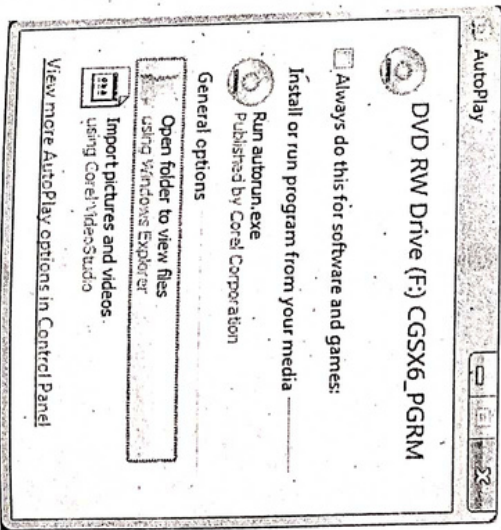
WORKING WITH CORELDRAW  
**1.2 IMPORTANCE OF CORELDRAW**

Whether one is in business or doing a personal project at home Corel Draw can provide the software to make the product a success. Since it has several options to edit, cut, and layer the work one is doing anyone can create newsletters, brochures and other works. There are other software programs like it but Corel is one of the leaders in the industry produced by a Canadian corporation. For marketing companies, advertising agencies, and other like companies Corel Draw can be highly important to know so that an employee can do the editing required with one of the top software programs on the market. For those who are learning graphic design for any type of business Corel Draw is one of the software products to be familiar with. There are certainly others but this is certainly one to have a certification level in to obtain a job in the field one might be interested in. The advantage is that Corel is much cheaper than the Adobe suite of products. Corel is certainly versatile. It is popular enough that many service bureaus, such as commercial printers, accept Corel files.

One of the main packages (Software) for designs and layout principle is CorelDraw. CorelDraw as a package is programmed for designing of all kinds e.g. Posters, Letterhead, Cards, handbills etc. Corel can create books, booklets, brochures and a number of other marketing products for businesses. Those creating graphic novels or children's books can use the software for illustrations. One can save in layers and cut out other images that they do not like. It is a full editing suite. CorelDRAW is one of the most powerful and versatile illustration programs on the market today, on any platform.

**1.3 INSTALLATION CORELDRAW**

- You can install both 32-bit and 64-bit versions of CorelDraw Graphics. In Windows 7:
1. Insert the installation disc in your DVD drive.
  2. The autoplay window should prompt you on what action to perform. Choose the option to Open folder to view files



Unit-V  
Chapter  
**11**  
Introduction to CorelDraw

**1. Basics of CorelDRAW Software**

**1.1 Introduction To CorelDRAW Software**

Corel Draw is a graphics editor. It is in some ways like the Photoshop suite where you can edit pictures and also draw pictures. It is a computer software, so all of the work is done on the computer rather than with paper and pencil. It makes the work go quicker. There are several graphics tools in order to fit shapes, lines, and other creations together and then color them. Corel can create books, booklets, brochures and a number of other marketing products for businesses. Those creating graphic novels or children's books can use the software for illustrations. One can save in layers and cut out other images that they do not like. It is a full editing suite.

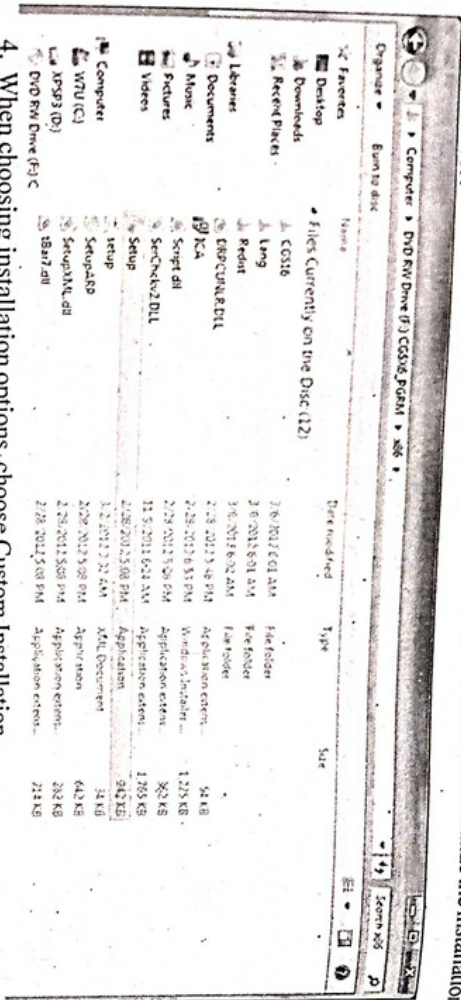
There are many computer applications that you can use to drive a laser cutter. CorelDRAW is a very powerful professional vector graphics package usually sold with other Corel products such as CorelTRACE and Corel PHOTO-PAINT. Some features will be familiar to those provided in similar applications such as Adobe Illustrator. CorelDRAW supports Windows shortcuts and both configured with its own additional shortcuts and can be customized to have additional shortcuts added.

It has a vast array of import and export filters to allow you to work successfully with the majority of other applications you will encounter. Another advantage to be gained from using CorelDRAW is that it can be used to great benefit for a multitude of other tasks

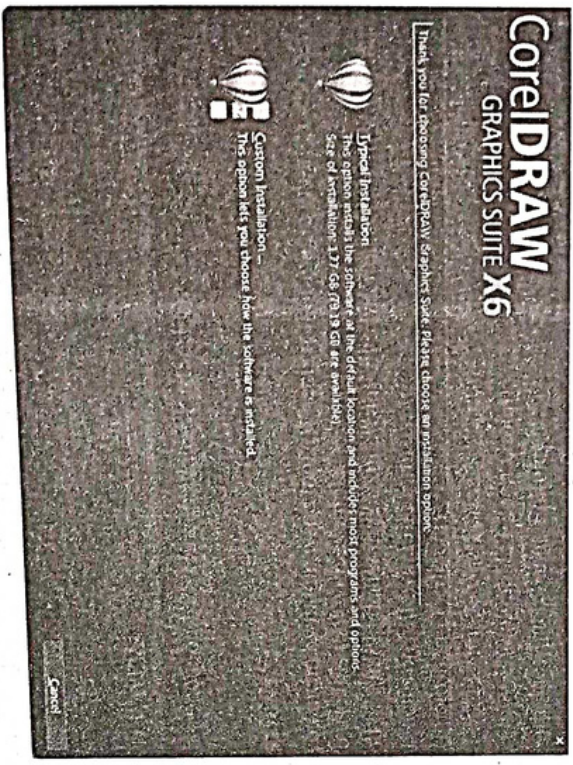
A glossary of CorelDRAW terminology is provided with this material and you can find further explanations in the Help screens.

CorelDRAW is a vector illustration program. Images are displayed on the computer screen as pixels. A bitmap file defines the position, color and size of each pixel. A vector program defines a line of pixels and treats them as a single object. To change an object in a bitmap, you must change all the pixels, so if a red box on a blue background needs to be smaller, you have to re-create a smaller red box and change the pixels where the box was to the blue background. When you have a vector image, you redefine the size and location of the lines. Each object is independent of the others and can be manipulated as needed. To make your work easier, Corel Corporation has added a few bitmap manipulation tools in DRAW and includes its bitmap manipulation program, CorelPhotoPaint, when you purchase CorelDRAW

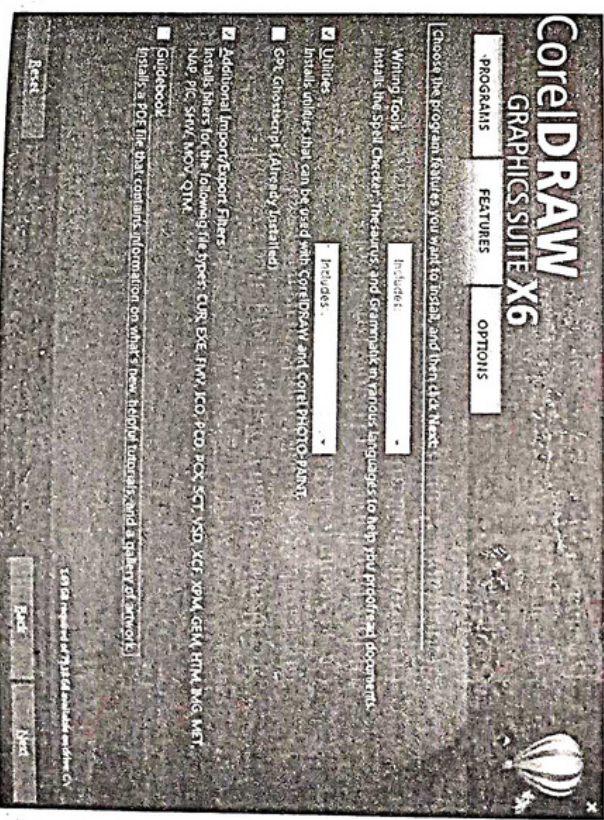
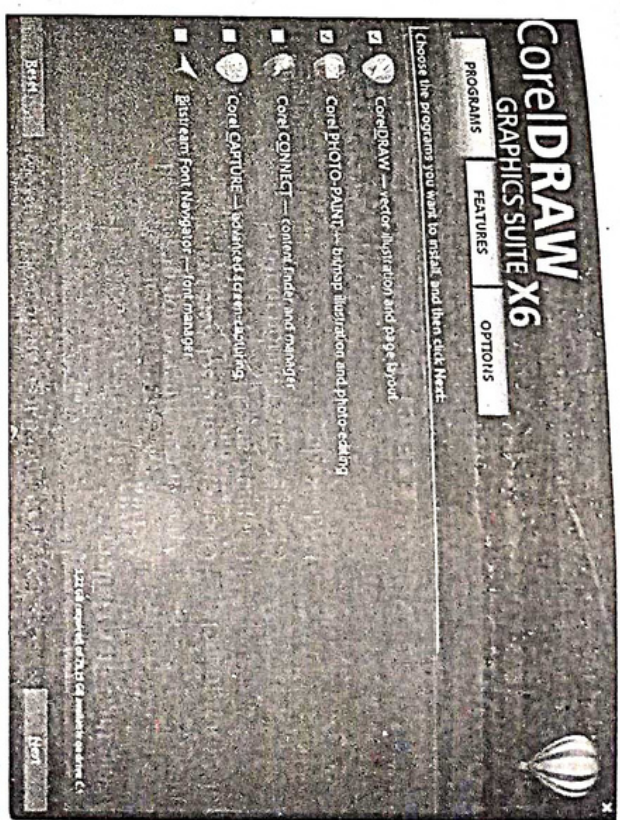
3. Open the x86 folder and double click on the Setup.exe file. This should initialize the installation process.

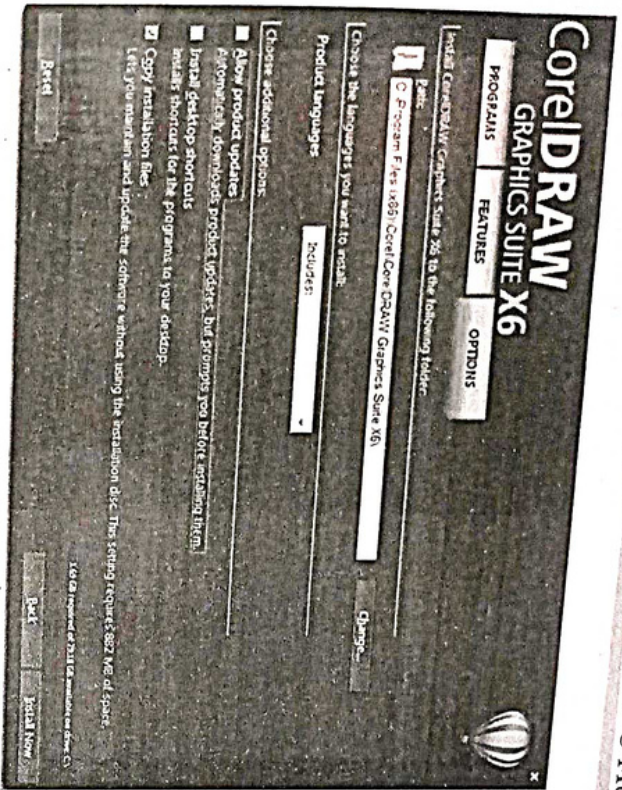


4. When choosing installation options, choose Custom Installation.

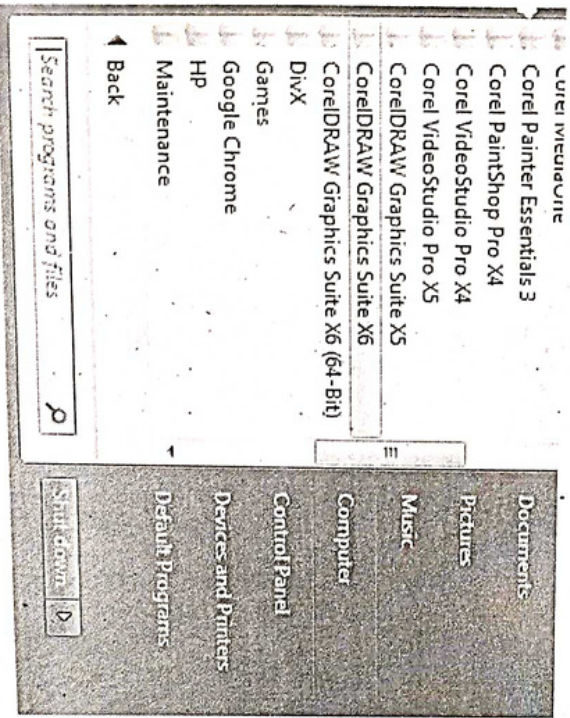


5. It is best to install the main programs only since the other utilities are already installed.





The program is now installed.



### 1.4 HOW TO LAUNCH CORELDRAW

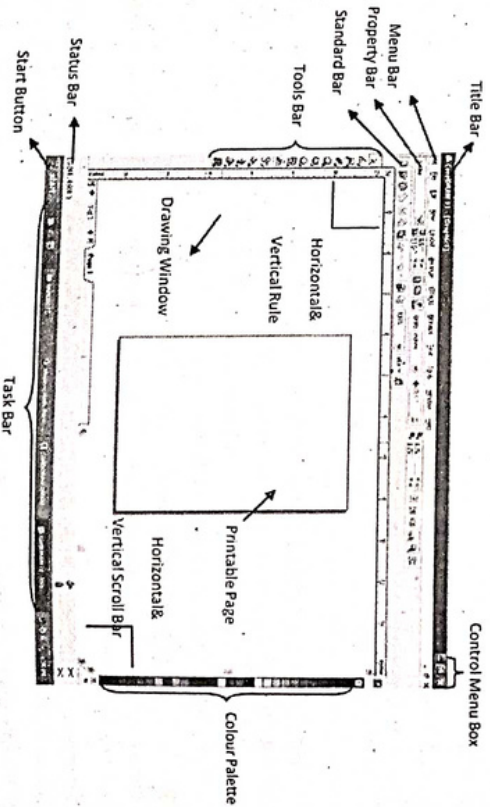
- Click on Start Button
- ↓
- Point on All Programs
- ↓
- Click on Corel Graphic suites (sub-menu list appears)
- ↓
- Click on CorelDRAW 11 (wait for some seconds for program to launch)

The Screen (Window) of CorelDraw.

### 1.5 HOW TO OPEN WORKSPACE IN CORELDRAW

- Open CorelDRAW.
- Go to the Tools menu then the Options dialog box (Ctrl+J) and click on the Workspace tab.
- Switch to the v12 default Workspace.
- Click OK and close the dialog window.
- Close the program.
- Reopen the program while holding down the F8 key.
- When the dialog box appears, press the Yes button. This will return your program to the factory defaults.

### 2. INTRODUCTION CORELDRAW WORKSPACE





The CorelDraw Window provides a work area where you can create and modify a job. The Tools present enable you to carry out series of designs.

If you are entirely new to CorelDRAW or maybe you haven't had much opportunity to use it in the past, first thing to do is to familiarize yourself with the workspace.

At the top of the screen you will find the Menu Bar. The Menus contain a wide variety of commands to modify the characteristics of your workspace and the entities within it. Beneath the Menu Bar you will find the property bar. This is adaptive dependent on the object you select or the tool you are using and you should note the various options you can control with each tool you use or shape you create.

On the left-hand side of the screen is the toolbox you use to create shapes and text with. At the bottom of the screen is the Status bar. This will tell you important details about the objects you select and is an invaluable guide to resolving problems.

A number of Dockers are available to allow you to manage your drawings and modify the components you create. A Docker is a toolbar that can be opened and closed as you wish and either kept floating or docked at the side of your workspace and collapsed to allow you greater screen space.

## 2.1 ELEMENT OF CORELDRAW ENVIRONMENT

**Title Bar:** It is the first bar in the screen of any opened application. It gives information about the program which you are working on and also the name used in saving the document.

**Control Menu Box:** It is located at the title bar, it contains command like: close, maximize, restore, minimize

**Close:** To exit a particular window

**Maximize/Restore:** To increase and decrease a window (opened program)

**Minimize:** When you minimize, the opened programs automatically goes to the task bar.

**Menu bar:** CorelDraw as a program has Eleven (11) menus, they include File, Edit, View, Layout, Arrange, Effect, Bitmap, Texts, Tools Window and Help menu. Each menu has its own function. When clicked on sub-menu list appears.

**Standard bar :** Tools present in the standard bar enables us to save, undo/redo, zoom etc.

**Property Bar:** It gives us information about the Width/Height, paper size, and orientation of a page and also the width/height of an object. And also with the help of the property bar we can also set our paper size, the orientation Portrait or Landscape.

**The Rule:** The rule (horizontal and vertical rule) enables us to measure.

**Scroll bar:** The scroll bar (horizontal and vertical scroll) enables to view unseen object by scrolling up, down, left, and right.

**Printable page:** The Printable Page Area is the rectangular shape located at the center of the drawing window. This area represents the portion of your drawing that will print. Any design done in the drawing window should be placed in the printable page.

**Note:** Any work done outside of the printable page will not be printed.

## 2.2 DEFINING THE PAGE SIZE

You can create your drawings in any page size you find convenient however it is very important that when you print your file to the laser cutter that the page you print from represents the bed size of your machine.

If it doesn't you will have no control over where the file is being cut. The page size can be set on the Property Bar:

The rulers on your laser cutter have their origin at the top left hand corner and you will find it is useful if your CorelDRAW page has the same. This can be defined by double-clicking on the rulers and entering the value you set the page height to in the Vertical.

**Origin.** Note it is easier to keep the units in Inches when you do this.

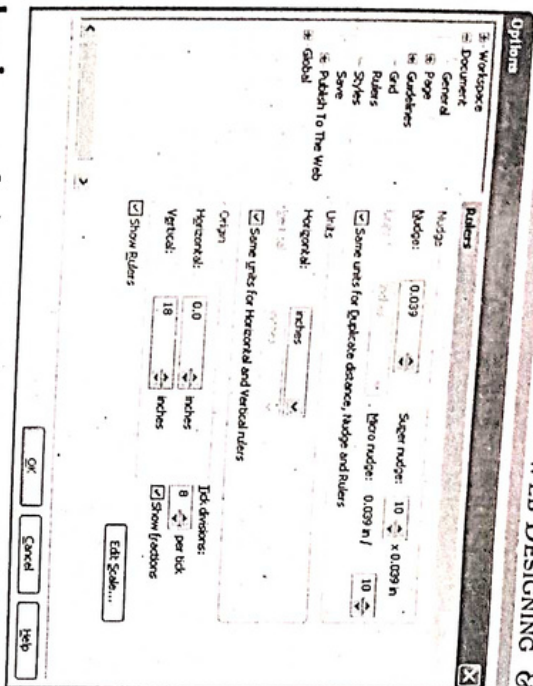
VL200 16" x 12"  
VL300 24" x 12"  
M-300 24" x 12"  
M-360 24" x 12"  
V-460 24" x 18"  
X-660 32" x 18"  
VLS2.30 16" x 12"  
VLS3.500 24" x 12"  
PLS3.60 24" x 12"  
PLS4.60 24" x 18"  
PLS6.60 24" x 18"

**Nudge Keys :** The Nudge Keys allow you to make quick precise incremental adjustments to the position of selected objects. Select objects and use the arrow keys on your keyboard to move them. A Nudge is a movement defined by amount. Double-clicking on the rulers opens the ruler options dialogue where the nudge amount can be defined.

You will also see options for Super Nudge and Micro Nudge. These will move a selection by a multiple of the Nudge value you defined.

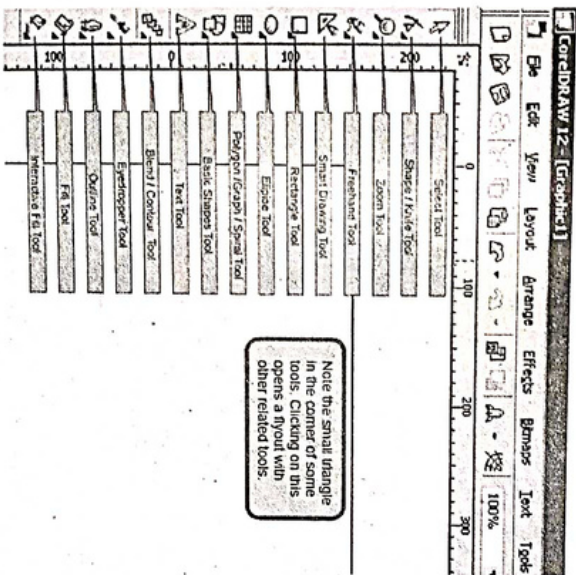
Depending on the version of CorelDRAW you have this can be set in the Property Bar when nothing is selected by entering a value in.

Note that the Super Nudge and the Micro Nudge factors cannot be set in the Property Bar and will be whatever factor has been defined in the ruler options. To use Super Nudge, hold down the Shift key as you press the arrow keys. To use Micro Nudge, hold down the Ctrl key as you press the arrow keys. As the bed of your Universal laser cutter has been built to Imperial measurements, you may find it simpler to set the Units to Inches first before entering the dimensions. These are the actual dimensions depending on the model you have.



### 2.3 Introduction and use of Toolbox

Take a tour of the Toolbox. By default this resides on the left hand side of the screen but it can be moved anywhere.

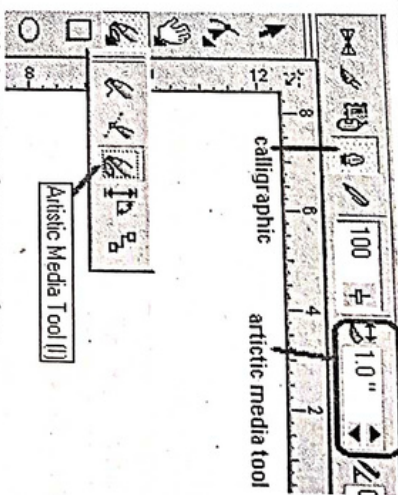


Drawing with CorelDRAW is best achieved by breaking the items you are creating down into a series of discrete components that are then sized using the Transformation Docker and shaped with the shape tool and the Weld and Trim tools in the Shaping Docker.

### 2.4 Basic tools for shapes and effects:

To Draw a Calligraphic Line :

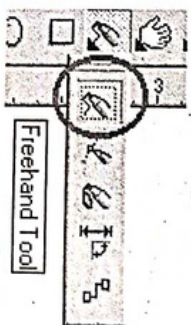
1. You have to click on the Artistic Media tool at the Curve fly out.



2. Then, click the Calligraphic button on the property bar.
3. Type in the values in the Calligraphic angle box.
4. Drag until the line to the shape that you satisfied.

To Draw a Straight Line :

1. You have to click on the Freehand tool at the Curve fly-out and click the location where you want to start the line.
2. Finally, click where you want to end it.



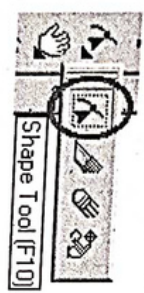
To Draw a Rectangle :

To do so, click the Rectangle tool, and drag in the drawing window until it becomes the rectangle that you want.



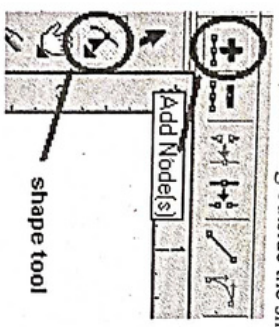
**To Round the Corners of a Rectangle :**

1. You have to click on the Shape tool at the Shape fly-out as shown as the picture below.
2. Then, click a rectangle and drag a corner node along the outline of the shape.



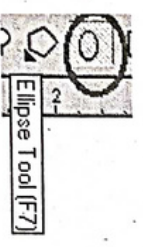
**To Draw an Arc :**

1. First of all, you have to click on the Shape tool at the Shape fly-out.
2. Click the node of the ellipse or circle, and drag outside the shape's perimeter.



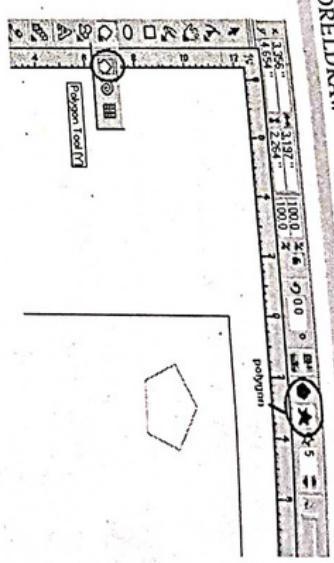
**To Draw an Ellipse :**

1. First, you will need to select the Ellipse tool, and drag in the drawing window until the ellipse becomes to the shape that you want.



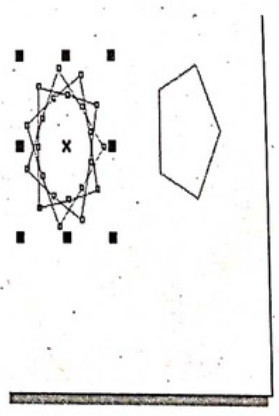
**To Draw Polygon :**

1. Click the Polygon tool at the Object fly-out, and drag in the drawing window until the polygon become the size that you want. This is shown at the image below.



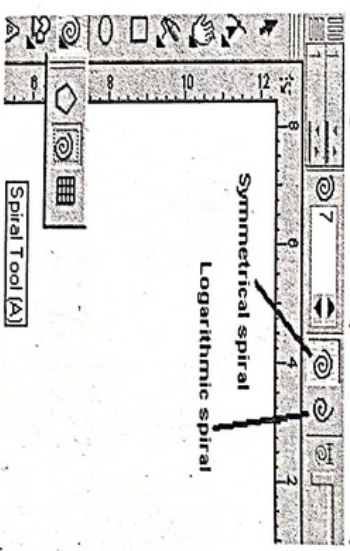
**To Reshape a Polygon :**

1. To do so, you ought to change the number of sides of a polygon or number of points on a star.
2. Select a polygon and type in a value in the Number of points on the field as shown below:



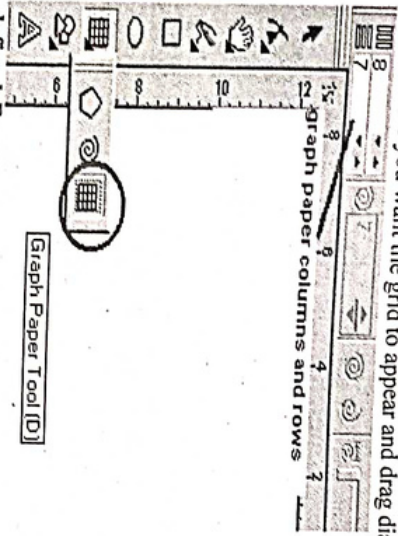
**To Draw a Spiral :**

1. At the beginning, you have to click on the Spiral tool at the Object fly-out.
2. Then, type in the values in the Spiral revolutions box on the property bar.
3. On the property bar, click Symmetrical Spiral or Logarithmic Spiral buttons.
4. Drag diagonally in the drawing window until the spiral becomes the required size.

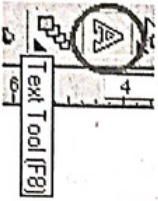


**To Draw a Grid :**

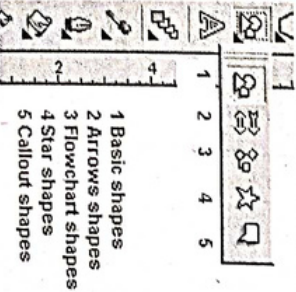
1. To draw a Grid, click on the Graph Paper tool at the Object fly-out.
2. After that type in the values in the top and bottom portions of the graph paper columns and rows as shown as the image.
3. Then, position the cursor where you want the grid to appear and drag diagonally.

**To Add Text to a Pre-defined Form :**

1. To add text, you have to click on the Text tool.
2. Then position the cursor inside the shape's outline until it changes to a Text cursor box.
3. Finally type the format of the font inside the shape.

**To draw a Pre-defined Shape :**

1. Open the Perfect shapes fly-out, and click one of the tools.
2. Then, click a shape at perfect shapes picker.
3. Drag in the drawing window until it becomes the shape and the size that you want.

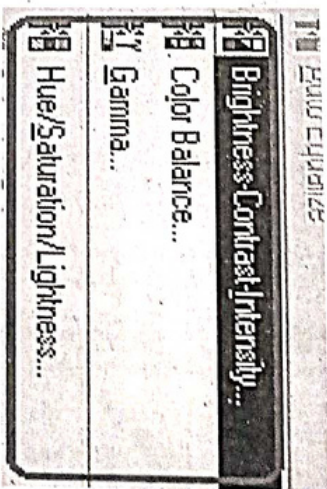
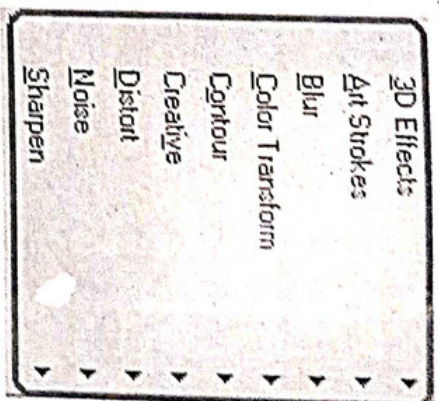
**WORKING WITH CORELDRAW****Apply a Special Effect :**

The picture at above shows the type of available Special Effects in Corel Draw 10, such as Special Effects, Art Strokes, Blur, Color Transform, 3DEffects, Art Strokes, Distort, Noise and Contour. Creative, Sharpeneffects.

To apply a special effect on a picture or object, choose the object. Then select a Special Effect type from the list above. You can then adjust any special-effect settings to the selected object.

**Apply a Color or Tone Effect :**

1. You will need to select a bitmapped image.
2. Then click the Effects menu and choose Adjust.
3. After that click a color or tone effect to specify any settings.

**2.5 Dockers**

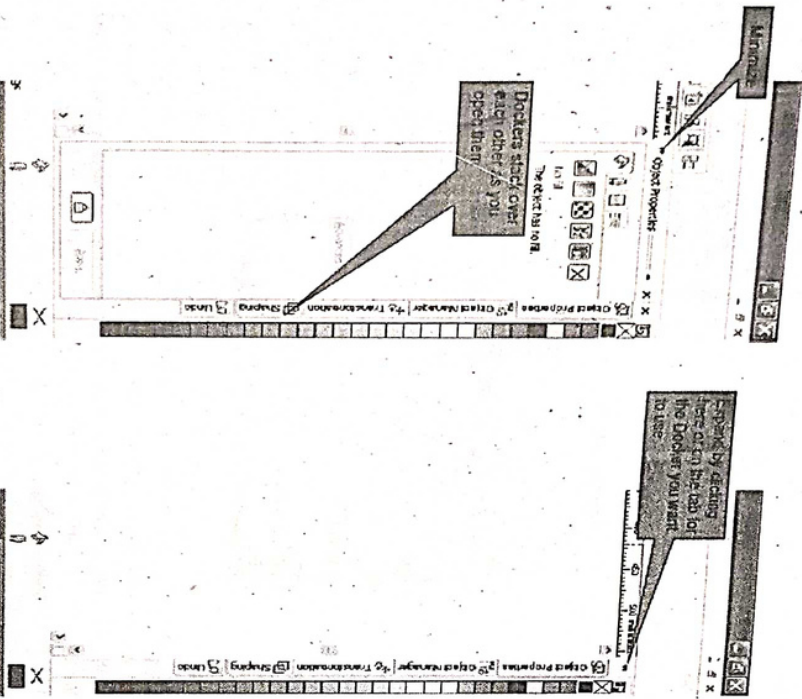
A Docker is a type of dialogue box that can reside on the screen to allow you quick access to commands, provide information about your work, to allow you to modify your work, to control your drawing in many ways. There are a number of dockers that you may choose to keep open at all times. They can be minimized to keep your workspace as large as possible but are readily accessible, and can be closed down if you don't use them very frequently.

Dockers that are particularly useful and worth keeping open all the time are The ObjectProperties Docker.

**Some Dockerare given below:**

- **The Transformation Docker :** The Transformation Docker enables us to modify the objects we create or import in a precision way. We can move objects to a precise location, rotate, mirror, size and skew accurately.

- **The Undo Docker:** This lists the sequence of events that you have made in your drawing and allows you to get back to a specific point without losing the work you have done. It is particularly useful for teachers as it will let you see how your students have constructed their drawings.
  - **The Object Manager Docker:** Advanced CorelDRAW users make much use of the Object Manager Docker. Each item you have created can be identified, accessed and modified in the Object Manager. New layers can be created in your drawing in the Object Manager and it allows you to move objects between layers and pages.
- Dockers are opened through the Window drop-down menu.



### 3. VARIOUS FILE FORMATS AND FILE EXTENSIONS

#### 3.1 CDR (Corel Draw Vector drawing file)

CDR is a file extension for a vector graphics file used by Corel Draw, a popular graphics design program. Corel Paint Shop Pro and Adobe Illustrator 9 and later can also open some CDR files.

ANS2

#### WORKING WITH CORELDRAW

Files that contain the .cdr file extension most commonly contain computer drawings. These files are files that have been created with the popular CorelDRAW computer drawing application, although drawings that have been created with the popular CorelDRAW computer drawing application, although other Corel applications can also assign the .cdr file extension. CorelDraw is Corel's computer graphics editor and the CDR computer drawing format is proprietary to that software program.

#### 3.2 CMG and CMX

CMG (Chessmaster saved game files) files are Uncommon Files primarily associated with CMG (Chessmaster Package; CMG files are also associated with Chessmaster Saved Game graphics ROM Filesystem Package; CMG files are also associated with Chessmaster Saved Game graphics ROM Filesystem Package; CMG files are also associated with Chessmaster Saved Game graphics ROM Filesystem Package) and FileViewPro. Additional types of files may also be using the CMG file extension.

CMX (Corel Metafile eXchange) is a file extension for a graphics file used with Corel software. CMX files contain vector graphics as well as metadata that describes the image. CMX files are used for storing Corel Clip Art. CMX files can be opened by CorelDraw, Corel Presentations, Paint Shop Pro and some versions of Adobe Illustrator.

#### 3.3 DXF and ODG

DXF (Drawing eXchange Format) DXF is a file extension for a graphic image format typically used with AutoCAD (Computer Assisted Drafting) software. DXF stands for Drawing eXchange Format. Since its initial release in 1982, there have been many changes to the DXF file format specifications. For that reason, AutoDesk maintains a current list of DXF file format specifications. Depending on the software creating the DXF file, it can either be in an ASCII or a binary format. The DXF file format is similar to the DWG file format, but DXF files are ASCII based and are therefore more compatible with other computer applications. DXF stands for Drawing Exchange Format. Files that contain the .dxf file extension contain CAD vector image files.

ODG Files that contain the .odg file extension are most commonly associated with OASIS vector graphic files. Drawings that have been created using an OASIS Open Document software application, such as the Open Office Draw application, files are saved with the .odg file extension.

These ODG files contain vector graphics that have been saved using XML formatting specifications. Open Office Draw is a part of the Open Office suite of software applications. Open Office was created as an open-source multi-platform, multilingual office suite by Sun Microsystems. This particular file format is expected to become an industry standard for sharing documents across different computer applications.

The .odg extension belongs to the Open Document Graphic (ODG) file type and format. ODG is a subset of the broader Open Document Format (ODF) international standard ODF: is an open and well-documented standard governmentally adopted by many countries.

ODG is a document file type and .odg files are used to store vector graphics documents with support for embedded objects like bitmap graphics, other ODF documents etc. An ODG file is often referred to as a vector drawing.

#### 3.4 EPS (Encapsulated PostScript files)

Adobe's EPS format (Encapsulated Post Script) is perhaps the most common vector image format. It is the standard interchange format in the print industry. It is widely supported as an export format but due to the complexity of the full format specification not all programs that claim to support EPS are able to import all variants of it. Adobe Illustrator and recent versions of CorelDRAW have

Very good support for reading and writing EPS, Encapsulated Post Script files (.eps) are self-contained files that are the same mathematically as vector files though they can be created from raster images as well. The format is one of the most compatible and portable because they are supported by almost all graphics software. They are an alternative to using vector files when the native formats are not available.

### 3.5 SVG (Scalable Vector Graphics)

SVG a vector graphics file format that enables two-dimensional images to be displayed in XML pages on the Web. Vector images are created through text-based commands formatted to comply with XML specifications. In contrast to JPEG and GIF images on the Web which are bit mapped and always remain a specified size. SVG images are scalable to the size of the viewing window and will adjust in size and resolution according to the window in which it is displayed.

#### Features:

- SVG stands for Scalable Vector Graphics.
- SVG is used to define vector-based graphics for the Web.
- SVG defines the graphics in XML format.
- SVG graphics do NOT lose any quality if they are zoomed or resized.
- Every element and every attribute in SVG files can be animated.
- SVG is a W3C recommendation.
- SVG integrates with other W3C standards such as the DOM and XSL.

#### SVG Advantages

- Advantages of using SVG over other image formats (like JPEG and GIF) are:
- SVG images can be created and edited with any text editor.
- SVG images can be searched, indexed, scripted, and compressed.
- SVG images are scalable.
- SVG images can be printed with high quality at any resolution.
- SVG images are zoomable (and the image can be zoomed without degradation).
- SVG is an open standard.
- SVG files are pure XML.
- smaller files size than regular bitmapped graphics such as GIF and JPEG files.
- resolution independence, so that the image can scaledown or up to fit proportionally into any size display on any type of Web device
- text labels and descriptions that can be searched by search engines
- ability to link to parts of an image
- complex animation

### 3.6 WMF META FILE (Microsoft Windows)

WMF is a file extension for a graphics file used with Microsoft Windows. WMF stands for Windows Meta File. WMF files can contain both vector and bitmap image information.

WMF files can be opened by Microsoft Word, PowerPoint or Publisher. Files that contain the .wmf file extension are most commonly associated with Windows meta files. These files are stored

### WORKING WITH CORELDRAW

The Widelands software application has also been known to use the .wmf file extension. These WMF files contain the map files that are used by the Widelands application. Windows Metafiles are intended to be portable between applications and may contain both vector graphics and bitmap components. It acts in a similar manner to SVG files.

Essentially a WMF file stores a list of function calls that have to be issued to the Windows Graphics Device Interface (GDI) layer to display an image on screen. Since some GDI functions accept pointers to callback functions for error handling a WMF file may erroneously include executable code.

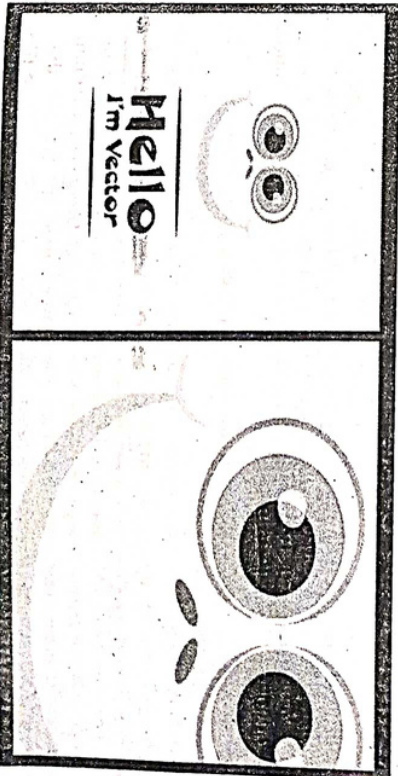
## 4. VECTOR IMAGES AND RASTER IMAGES

### 4.1 VECTOR IMAGES

Vector images are made up of basic geometric shapes such as points, lines and curves. The relationship of the shapes is expressed as a mathematical equation which allows the image to scale up or down in size without losing quality.

CorelDRAW is a vector editor that can read and write EPS, AI, PDF, SVG and many other formats. CorelDRAW is the second most widely-used vector editor on the market after Adobe Illustrator.

Logo designs and print work such as brochures and posters should be designed as vector images using vector drawing software like Adobe Illustrator, Corel Draw.



Vector images which are made of thin lines and curves known as paths are rooted in mathematical theory. Vector graphics must be created in computer software that is designed to create this intricate wireframe-type image and each line includes defined node positions, node locations, line lengths and curves. Any of the lines and curves in the image can be assigned a color value. Because of this defined formulaic approach to drawing each image can be sized and scaled repeatedly and limitlessly without losing resolution or beginning to look cloudy or pixelated.

You can identify a vector image by looking at its edges - a vector image will always appear smooth no matter how large you make it or how close you zoom in. Text is one of the most common types of vector image. No matter how much you increase a font's size for example its look never changes.

Another advantage to using vector images is file-size efficiency. Because the files are only identified by mathematical descriptions and not individual pixels, files are often much smaller than those of the raster counterparts. Vector images, therefore are often easy to transmit from one computer to another and over the Internet.

The most common problem with using vector images is compatibility. Vector images are often saved as native files from the program used to create the image.

Remember vector images are best used for logos and illustrations. Raster images are the standard in digital photography and are commonly used for all graphics once they are published digitally. Consider creating a vector image library for your files and saving copies for raster-based work to save you time during the life of a project.

Most companies create all of their logos and insignia as vector images. These files are saved and are used as the basis for raster copies that get used in print and web publishing. Keeping a nice library of vector images can save you time because of the ability to resize on the fly.

High-resolution, high-quality clip art is often developed and sold as vector images as well. You will get more flexibility and more for your money when you buy vector-based clip art rather than high-DPI images.

Type and fonts are also created as vector images which allows you to change the size while maintaining quality. This also keeps type from looking blocky and helps certain type faces maintain their smooth shapes and edging. Be aware though, that if you create add type to an image or another type of file in software such as Adobe Photoshop (which is raster-based) your text will lose its vector attributes once the image is flattened and saved.

Vector file formats are EPS, SVS, ODDG, CDR etc. For detail see previous topic.

#### 4.1.1 Vector image Applications

Use Adobe Illustrator, Corel Draw, Inkscape or an equivalent to create vector images for:

- **Logo Designs** : Vector images are the No. 1 option when designing or creating a logo or illustration. Because of the way images are created and saved you will have more flexibility with making changes and be able to use your image at a variety of sizes. You may only need a web logo now but image how great it would be to have that image ready to use on a banner or merchandise later without having to create it all over again.
- **Brochures** : Vector image technique is best way to create brochures.

#### WORKING WITH CORELDRAW

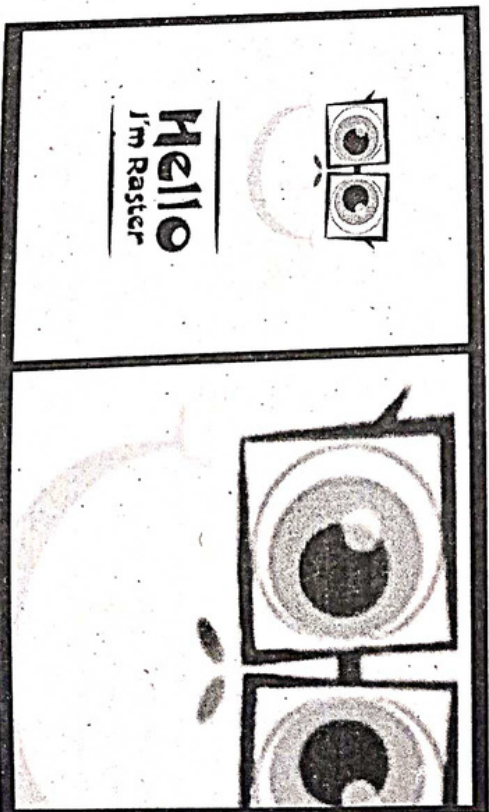
WORKING WITH CORELDRAW

- **Posters: complex posters are easily handle by using vector images.**
- **Printing On Paper And Clothes:** These processes typically require vector input to work at all. In most cases you can't cut/extrude the base material without the shape definitions used in vector graphics. Printing has much higher resolution (typically 600 pixels/dots per inch, DPI) than what you see on a computer screen (typically 72 pixels/dots per inch, DPI). This means that while something might show just fine on your screen, it is going to look "grainy" or pixelated when actually printed.
- **General Graphic Design:** Graphic design is done in many ways with many tools, but the versatility and flexibility of vector images make them a very natural canvas to use when creating different forms of graphics such as logos or drawings.
- **Flash Animations:** A lot of the smooth animations and creative art you see in animated content online is done using vector images inside Flash animations.

#### 4.2 RASTER IMAGE ART

Raster images are made up of a set grid of dots called pixels where each pixel is assigned a color value. Unlike a vector image, raster images are resolution dependent.

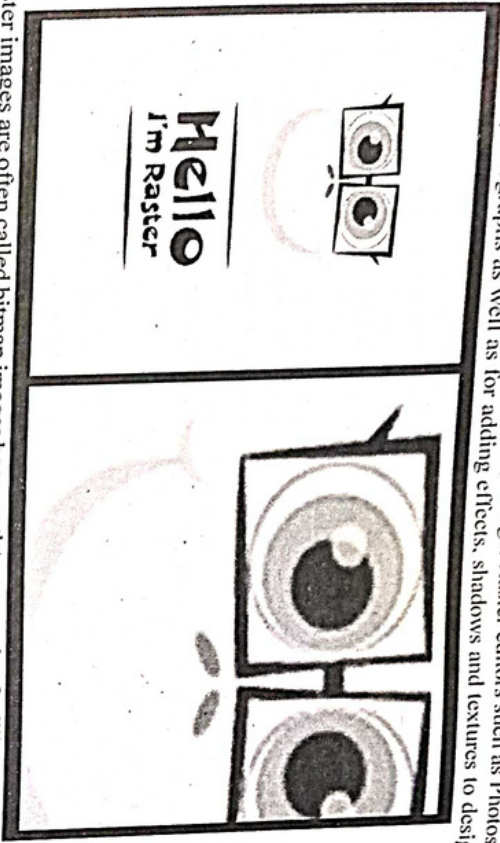
When you change the size of a raster image, you shrink or stretch the pixels themselves which can result in a significant loss of clarity and very blurry image. Raster editors such as Photoshop or GIMP are great for photographs as well as for adding effects, shadows and textures to designs.



**Raster images** are made up of a set grid of dots called pixels where each pixel is assigned a color value. Unlike a vector image, raster images are resolution dependent.

When you change the size of a raster image, you shrink or stretch the pixels themselves which

can result in a significant loss of clarity and very blurry image. Raster editors such as Photoshop or GIMP are great for photographs as well as for adding effects, shadows and textures to designs.



Raster images are often called bitmap images because they are made of millions of tiny squares, called pixels. You can identify a raster or bitmap image by looking at it very closely. If you zoom in enough, you will be able to see the square outlines of each pixel (especially around edges where there are dramatic color contrasts).



Raster graphics typically have larger file sizes than their vector counterparts. Higher DPI (dots per inch) and PPI (pixels per inch) settings also contribute to larger files because software must keep track of and be able to render each pixel. File size can become a concern if storage or server space is limited or if files have to be transmitted electronically.

You will want to avoid using raster images in creating and working with logos and illustrations. In some instances a raster image can be used successfully when working with logos, especially if there the logo is more image rather than text based. It is recommended, though to create the logo as a vector file and save copies as raster images as needed for specific projects.

Raster images are the preferred method when working with photographs. When photos are taken with a digital camera or copied on a scanner the resulting files are raster images. Because raster images are constructed using a fixed number of colored pixels, they can't be dramatically resized without compromising their resolution. When stretched to fit a space they weren't designed to fill their pixels become visibly grainy and the image distorts. This is why altered photos may appear pixelated or low resolution. Therefore it is important that you save raster files at precisely the dimensions needed to eliminate possible complications.

4.2.1 Application of Raster Image

- **Websites** : Almost all of the images you find on websites are raster images even those that may have originally been created with paths. Raster images are typically acceptable for digital publication but may not work well in printed projects. Often these files are saved as low resolutions and are not suitable for print reproduction.
  - **In printed mediums** : Such as books, magazines and newspapers - raster images are often used to reproduce photographs. Images are saved at a high DPI so that quality will not suffer during the printing process.
  - **Image storage** : Most computer images are stored in raster graphics formats or compressed variations including GIF, JPEG and PNG which are popular on the World Wide Web. Three-dimensional voxel raster graphics are employed in video games such as the Comanche series by Nova logic, and are also used in medical imaging such as MRI.
- Raster image file formats are JPEG, PNG, GIF, TIF etc. For detail see previous chapter (Filter and Layer).

 <h1 style="font-size: 2em; margin: 0;">Vector</h1>	 <h1 style="font-size: 2em; margin: 0;">Raster</h1>
<b>WEB USES</b>	<b>OUTPUT files</b> for most web graphics displayed on the screen
<b>SOURCE files</b> for logos, charts, icons, or any hard-edged graphics	<b>PRINT USES</b>
<b>SOURCE files</b> to be sent to the printer	<b>HI-RES files</b> can be printed at 300dpi
<b>FILE TYPES</b> .ai    .eps    .pdf    .svg    .jpg    .gif    .png    .tif	



Many of you will be familiar with Windows's shortcut keys. CorelDRAW supports all the usual shortcuts and has a number of its own to speed up production. You can also assign your own shortcuts to suit your particular working methods. The common shortcuts you are likely to find useful when producing drawings for your laser cutter are listed below. As you become familiar with the program you are likely to use it for other purposes. A comprehensive list of CorelDRAW shortcuts can be found in Tools Customisation Commands.

**Shortcut Keys:**

Ctrl + Z	Undo
Shift + Ctrl + Z	Redo
Ctrl + C	Copy
Ctrl + V	Paste
Ctrl + X	Cut
Ctrl + G	Group
Ctrl + U	Ungroup
Shift + PgDn	To Back
Shift + PgUp	To Front
B	Align Bottom
E	Horizontally aligns centres
C	Vertically aligns centre
L	Aligns left
R	Aligns right
P	Aligns to centre of page
Ctrl + L	Combine
Ctrl + K	Break apart

**Correcting mistakes**

Most operations can be undo if you make a mistake. Alternatively you can restore all or part of an image to its last saved version. But available memory may limit your ability to use these options. To undo the last operation: Choose Edit > Undo. (For most operations you can also hit Ctrl+Z.) If an operation can't be undo, the command is dimmed and changes to Can't Undo. To redo the last operation: Choose Edit > Redo. To free memory used by the Undo command the History palette or the Clipboard: Choose Edit > Purge and choose the item type or buffer you want to clear. If already empty the item type or buffer is dimmed.

**Important :** The Purge command permanently clears from memory the operation stored by the command or buffer; it cannot be undo. For example, choosing Edit > Purge > Histories deletes all history states from the History palette. Use the Purge command when the amount of information held in memory is so large that Photoshop's performance is noticeably diminished. To revert to the

**WORKING WITH CORELDRAW**

Note: Revert is added as a history state in the History palette and can be undone. To restore part of an image to its previously saved version: Do one of the following: o Use the history brush tool () to paint with the selected state or snapshot on the History palette. o Use the eraser tool () with the () to History option selected. Select the area you want to restore, and choose Edit > Fill. For Use, Erase to History, and click OK.

**EXERCISE**

**VERY SHORT QUESTIONS**

- Q1. What is CorelDraw? *260*
- Q2. What do you mean by CDR? *274*
- Q3. What is vector image? *277*
- Q4. What is raster image? *279*
- Q5. What is short cut keys for group and ungroup in corel draw? *Ctrl + G*

**SHORT QUESTIONS**

- Q1. What do you mean by corel draw? Explain the importance of corel draw in web designing.
- Q2. How to open corel draw work space? *265*
- Q3. Make a small introduction to corel draw work space.
- Q4. Write about basic tools used for shape and effects in corel draw.
- Q5. Write a short note on dockers.
- Q6. Write a short note on CDR and CMG file formats.
- Q7. Write difference between vector image and raster image.

**LONG QUESTIONS**

- Q1. What are corel draw environment elements, explain in detail. Explain how corel draw toolbox is used?
- Q2. Explain in brief on file formats used in corel draw.
- Q3. Write short note on Vector image/Raster image. Also, write the application of vector and raster image.