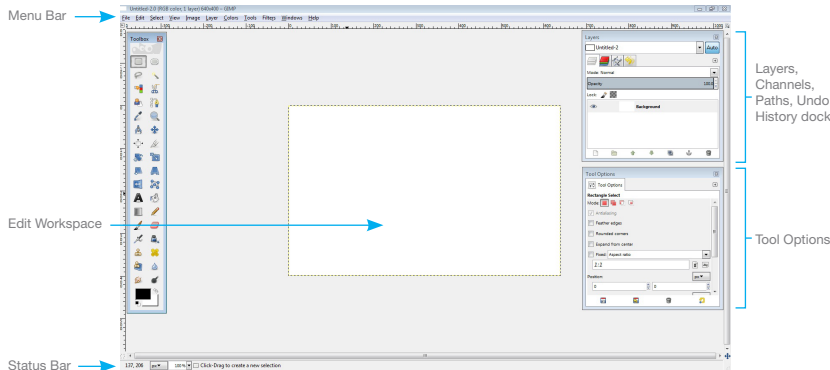


GIMP Menus / Windows



Certification Test Goals

This module sets out essential concepts and skills relating to the ability to understand the main concepts underlying digital images and to use an image editing application to enhance images, apply effects, and prepare an image for printing and publishing.

Successful candidates will be able to:

- Know about the main concepts of using digital images and understand graphic format options and colour concepts.
- Open an existing image, save an image in different formats, and set image file options.
- Use built-in options such as displaying toolbars, palettes to enhance productivity.
- Capture and save an image, use various selection tools, and manipulate images.
- Create and use layers, work with text, use effects and filters, and use drawing and painting tools.
- Prepare images for printing or publishing.

Keyboard Shortcuts

General

Open	Ctrl+O
Save	Ctrl+S
Print	Ctrl+P
Close	Ctrl+W
Undo	Ctrl+Z
Redo	Ctrl+Y
Help	F1

Editing

Cut	Ctrl+X
Copy	Ctrl+C
Paste	Ctrl+V
Zoom In	+
Zoom Out	-

Selection

Select All	Ctrl+A
Select None	Shift+Ctrl+A
Inverse	Ctrl+I

1 Imaging Concepts

1.1 Digital Images

1.1.1 Identify common uses of digital images like:

- **Web and print publishing** - Publish images to websites, social networks or photo sharing sites, or use for print publishing (magazines, brochures)
- **Distribution by e-mail and mobile phone** - Send your images to friends, colleagues
- **Home printing** - Use a printer, photo printer
- **Digital photo frames** - Display images on a digital photo frame

1.1.2 Understand the terms pixel, resolution.

- **Pixel** - the smallest part of a digital image on a screen or a single point in a raster image
- **Resolution** - the measure of the detail quality of a digital image

1.1.2 Identify the key features of a digital image:

- Composed of discrete pixels
- Represented digitally in binary code

1.1.3 Understand the terms lossy, lossless image file compression.

- **Lossy compression** creates a smaller sized compressed file that results in a lower resolution picture with pixel loss.
- **Lossless compression** ensures that the compressed data can be reconstructed to the exact original image without pixel loss.

1.1.4 Understand the term copyright and the implications for image use.

- **Copyright** - the rights granted to use, publish or distribute images, or other pieces of work for a specific time period

1.1.4 Understand the terms royalty-free images and rights-managed images.

- **Royalty-free images** incur a one-off fee that allows the user to use the image as many times as required with some restrictions.
- **Rights-managed images** have a copyright license which, if purchased by a user, allows the one-time use of a photo as specified by the license.

1.2 Graphic Formats

1.2.1 Understand the terms raster and vector graphics and distinguish between them.

- **Raster graphics** - represent a grid of pixels and cannot be scaled to a larger size without losing quality
- **Vector graphics** - created using points, lines and curves, based on mathematical equations and can be scaled to a large size without losing quality

1.2.1 Identify common raster (jpeg, gif) and vector (svg, eps) formats.

Raster File Format	File Extension
Joint Photographic Experts Group (JPEG)	.jpeg
Graphics Interchange Format (GIF)	.gif

Vector File Format	File Extension
Scalable Vector Graphics (SVG)	.svg
Encapsulated PostScript (EPS)	.eps

1.2.2 Recognize proprietary digital image editing application formats:

File Format	File Extension
Photoshop Native Format	.psd
Paint Shop Pro Native Format	.psp
GIMP Native Format	.xcf
Corel Photo-Paint Format	.cpt

1.3 Colour Concepts

1.3.1 Understand the term colour model.

- A mathematical model describing how colours can be represented as lists of numbers, typically as three or four values or colour components.

1.3.1 Recognize common colour models:

- **RGB** - Combines red, green and blue
- **HSB** - Combines hue, saturation and brightness
- **CMYK** - Combines cyan, magenta, yellow and key (black)
- **Grayscale** - Combines shades of gray, varying from black to white

1.3.2 Understand the terms colour palette, colour depth.

- **Colour palette** - the total colours available
- **Colour depth** - the maximum number of

distinct colours that are used in an image, higher depth gives a broader range of distinct colours and a more realistic image

1.3.2 Understand the terms hue, saturation, colour balance.

- **Hue** - A pure colour described by name like red or yellow
- **Saturation** - The dominance of hue in the colour
- **Colour balance** - The overall adjustment of the intensities of the colours

1.3.2 Understand the terms contrast, brightness, gamma.

- **Contrast** - The difference in colour and light level in an image
- **Brightness** - The degree to which an image radiates light
- **Gamma** - The way brightness is changed for the middle range of gray tones

1.3.2 Understand the term transparency.

- **Transparency** - The ability of light to transmit through an image

2 Image Capture

2.1 Capturing Images

2.1.1 Save an image from a digital camera to a location on a drive.

- Connect the digital camera to the computer.
- Follow the Wizard instructions to choose the image to save.
- Select the location on the drive and save the image.

2.1.2 Use the print screen facility to capture a full screen.

- Press the **Print Screen** key.
- Open an image editing application.
- Click the **Edit** menu.
- Click **Paste**.

2.1.2 Use the print screen facility to capture an active window.

- Open a window on the desktop.
- Press the **Alt** key + **Print Screen** key on the keyboard.
- Open an image editing application.
- Click the **Edit** menu.
- Click **Paste**.

2.1.3 Save an image from an image library, web page to a location on a drive

- Right-click the image.
- Select **Save image as**.
- Create a file name and navigate to the location required.
- Click **Save**.

2.1.4 Open a scanning application and scan an image: preview, set scanning parameters, scan, save.

- Place the image on the scanner.
- Click scan to view options.
- Follow the instructions to choose the scanning parameters.
- Navigate to the location required to save the image and scan.

3 Using the Application

3.1 Image Creation

3.1.1 Open an image editing application.

- Click the **Start** button.
- Select **All Programs**.
- Click **GIMP2**.

3.1.1 Close an image editing application.

- On the **File** menu, click **Quit**.

3.1.1 Open image files.

- On the **File** menu, click **Open**.
- Select file(s) to open and click **Open**.

3.1.1 Close image files.

- On the **File** menu, click **Close** to close the current image window or **Close all** to close all opened images.

3.1.2 Create a new image file and set options: colour model, size, resolution, background colour.

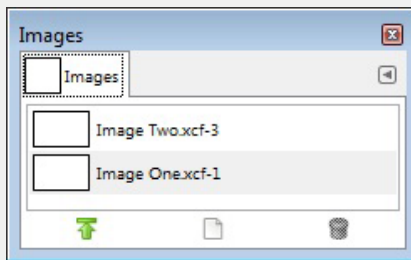
- On the **File** menu, click **New**.

- Set the file options.
- Click **OK**.

3.1.3 Create a new image file from clipboard.

- Ensure an item has been copied to the clipboard.
- On the **File** menu, select **Create**.
- Click **From Clipboard**.

3.1.4 Switch between open image files.



- On the **Windows** menu, select **Dockable Dialogs**.
- Click **Images**.
- Click the image file required from the **Images** dialog to switch to that file.

3.1.5 Save an image to a location on a drive.

- On the **File** menu, click **Save**.
- Create a file name and navigate to the required location.
- Click **Save**.

3.1.5 Save an image under another name to a location on a drive.

- On the **File** menu, click **Save As**.
- Enter a new file name over the existing file name and navigate to the location required.
- Click **Save**.

3.1.6 Save, export an image as another file type like: jpeg, gif, tiff, png.

- On the **File** menu, click **Export**.
- Click the **Select File Type (By Extension)** drop-down menu and click a file type.
- Click **Export**.

3.2 Settings

3.2.1 Set background colour, foreground colour.

- In the **Toolbox**, click the **Set Background Color** or **Set Foreground Color** option.
- Select the colour required.
- Click **OK**.

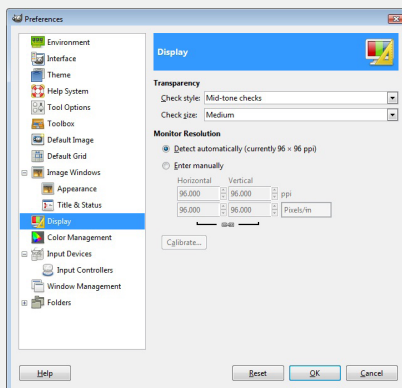
3.2.2 Set grid properties: units, horizontal spacing, vertical spacing, colour.

- On the **Edit** menu, click **Preferences**.
- Click **Default Grid**.
- Click the **Line style**, **Foreground color** and **Background color** required.
- Enter the **spacing** and **offset** required.
- Click **OK**.

3.3 Enhancing Productivity

3.3.1 Set basic options/ preferences in the application like: transparency, grid settings, measurement units.

- To set transparency, on the **Edit** menu, click **Preferences**.
- Click **Display**.
- Click the transparency **Check style** and **Check size** required.
- Click **OK**.



- To set grid settings, on the **Edit** menu, click **Preferences**.
- Click **Default Grid**.
- Click the grid **Line style**, **Foreground color** and **Background color**.
- Enter the gridline **spacing** and **offset** required.
- Click **OK**.
- To set measurement units, on the **Edit** menu, click **Units**.
- Check the checkboxes for the **Units** required.
- Click **Close**.

3.3.2 Use available Help functions.

- On the **Help** menu, click **Help**.

3.3.3 Use magnification/zoom tools.

- On the **View** menu, select **Zoom (100%)** and click **Zoom Out** or **Zoom In**.

3.3.4 Use the undo, redo command.

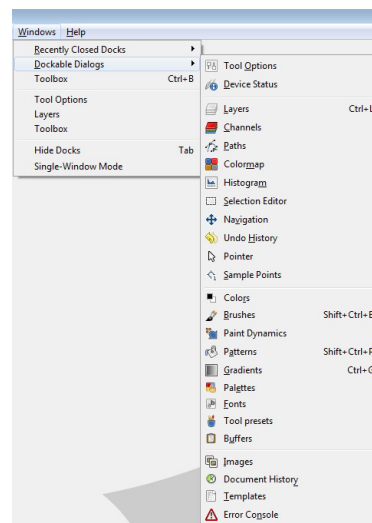
- On the **Edit** menu, click **Undo** or **Redo**.

3.3.4 Use the undo history.

- On the **Edit** menu, click **Undo History**.
- Select a state in the file history to revert to.

3.3.5 Display, hide built-in toolbars, palettes, windows.

- On the **Window** menu, select/deselect appropriate toolbar, palette, window.



4 Working with Images

4.1 Selection

4.1.1 Select an entire image, layer(s).

- To select an entire image, on the **Select** menu, click **All**.
- To select a layer, in the **Layers** panel, click the layer required.

4.1.2 Set selection tool properties: relationship between multiple selections, feathering, antialiasing, width, height.

- In the **Toolbox**, click the required **Selection Tool**, choosing from the **Rectangle**, **Ellipse**, **Free**, **Fuzzy**, **Select by color**, **Scissors** **Select Tool**.
- In the **Tool Options**, select the required relationship between selections option.
- Check the feathering and antialiasing check boxes and enter the width and height required.

- 4.1.3 **Select part of an image using selection tools: rectangular, elliptic, magic wand, magnetic lasso, freehand image.**

Selection Tool	Description
Rectangle / Ellipse select tool	Draws square or rectangular selection borders or draws round or elliptical selection borders.
Fuzzy select tool (Magic Wand)	Selects pixels of similar colour with one click.
Scissors select tool	Draws a selection border using intelligent edge fitting.
Free select tool (Lasso)	Draws freehand selection borders. This tool is great for making very precise selections.

- In the **Toolbox**, click the required **Selection Tool**.
- Select a part of the image using the tool.

- 4.1.4 **Inverse a selection.**

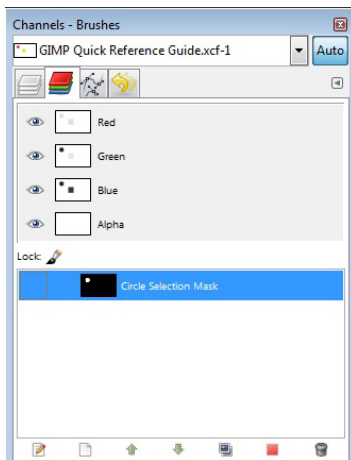
- In the **Toolbox**, click the required **Selection Tool**.
- Select a part of the image using the tool.
- On the **Select** menu, click **Invert**.

- 4.1.5 **Save a selection.**

- In the **Toolbox**, click the required **Selection Tool**.
- Select a part of the image using the tool.
- On the **Select** menu, click **Save to Channel**. Enter a **Selection Name**.
- Click **OK**.

- 4.1.5 **Load a saved selection**

- In the **Channels** panel, choose the required selection.
- Click the **red square** icon to load the selection.



4.2 Image Manipulation

- 4.2.1 **Change the canvas size of an image.**

- On the **Image** menu, click **Canvas Size**.
- Enter the **width** and **height** required.
- Click **Resize**.

- 4.2.2 **Resize an image in pixels, measurement units.**

- On the **Image** menu, click **Scale Image**.
- Enter the **width** and **height** required.
- Select the required measurement unit.
- Click **Scale**.

- 4.2.3 **Crop an image.**

- In the **Toolbox**, click the **Crop Tool**.
- Click and drag to select the part of the image you wish to crop using the tool.
- Press the **Return** key to accept changes.

- 4.2.4 **Copy image(s), selection within an image.**

- In the **Toolbox**, click the **Move Tool**.
- Select the image and click **Ctrl + C** to copy.
- Paste the image selection into the desired location.

- 4.2.4 **Move image(s), selection within an image.**

- In the **Toolbox**, click the **Move Tool**.
- Select the image and click and drag to move.

- 4.2.5 **Rotate, mirror an image, selection within an image.**

- In the **Toolbox**, click the required **Selection Tool**.
- Select the image, part of image you wish to rotate, mirror.
- On the **Image** menu, click **Transform** and click the required rotation or flip (mirror) option.

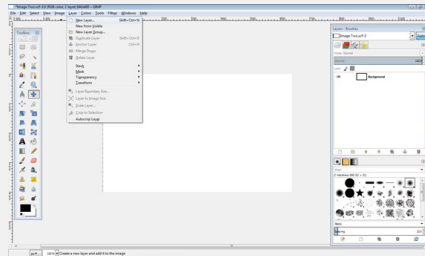
4.3 Layers

- 4.3.1 **Define and understand the term layer.**

- Layers are used to separate different elements of an image and are stacked on top of each other.

- 4.3.2 **Create a layer.**

- On the **Layer** menu, click **New Layer**.
- Enter the **Layer Name**, **Width**, **Height** required.
- Check the **Layer Fill Type** check box required.
- Click **OK**.



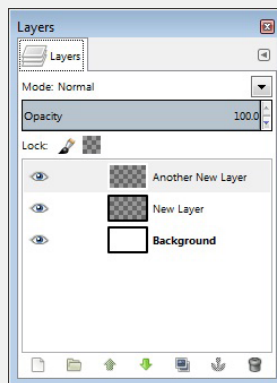
- 4.3.2 **Copy a layer.**

- In the **Layers** panel, select the layer to copy.
- On the **Layer** menu, click **Duplicate Layer**.
- Edit a new layer name in the **Layers** dialog.

- 4.3.2 **Delete a layer.**

- In the **Layers** panel, select the layer to delete.
- On the **Layer** menu, click **Delete Layer**.

- 4.3.3 **Set layer properties: name.**



- In the **Layers** panel, double-click the layer to open layer properties.
- Edit the **Layer Name**.
- Click **OK**.

- 4.3.3 **Set layer properties: hide, show.**

- In the **Layers** panel, click the **Eye** symbol to **Show/Hide** a layer.

- 4.3.3 **Set layer properties: lock.**

- In the **Layers** panel, click to the right of **Lock** to **Lock pixels** or **Lock alpha channel**.

- 4.3.3 **Set layer properties: opacity.**

- In the **Layers** panel, adjust the **Opacity** slider to select the appropriate opacity.

- 4.3.3 **Set layer properties: blending mode.**

- In the **Layers** panel, click the **Mode** drop-down arrow.
- Select the appropriate blending mode.

- 4.3.4 **Arrange layers.**

- On the **Layer** menu, click **Stack**.
- Select the appropriate option to **Raise / Lower** the layer.

- 4.3.4 **Merge layers.**

- In the **Layers** panel, select the layer to merge.
- On the **Layer** menu, click **Merge Down** to merge to the layer below.

- 4.3.4 **Link layers.**

- In the **Layers Panel**, click to the right of the **Eye** symbol on appropriate layers to link these layers.

- 4.3.4 **Flatten layers.**

- On the **Image** menu, click **Flatten Image** to merge all layers into one.

- 4.3.5 **Transform layer(s): scale.**

- Select the layer to transform.
- On the **Layer** menu, click **Scale Layer**.
- Enter the desired **Layer Size** and **Quality**.
- Click **Scale**.

- 4.3.5 **Transform layer(s): rotate.**

- Select the layer to transform.
- On the **Layer** menu, click **Transform** and select the appropriate layer rotation option.

- 4.3.5 **Transform layer(s): flip.**

- Select the layer to transform.
- On the **Layer** menu, click **Transform** and select the appropriate layer flip option.

- 4.3.5 **Transform layer(s): move.**

- In the **Layers** panel, select the layer to move.
- Click the **Move Tool**, click and drag the layer to the required location.

- 4.3.5 **Transform layer(s): trim.**

- On the **Layer** menu, click **Layer Boundary Size**.
- In the **Toolbox**, click the **Crop Tool**.
- Enter the required **Layer Size** and **Offset**.
- Click **Resize**.

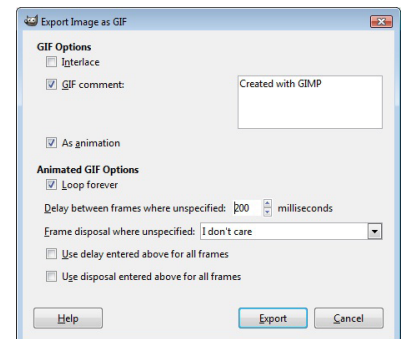
- 4.3.6 **Convert a drawn object to a raster layer.**

- Select a text layer.
- On the **Layer** menu, click **Discard Text Information**.

Note: Only text layers can be converted to a raster layer in GIMP.

- 4.3.7 **Create an animated gif from layers.**

- On the **File** menu, click **Export**.
- Create a file name and navigate to the location required.
- Select **GIF image** as the file type.



- Check the **As animation** GIF Option checkbox and select any additional loop and frame delay settings.
- Click **Export**.
- Click **Save**.

Note: You must have two or more layers to create an animated gif.

4.4 Text

- 4.4.1 **Add text.**

- In the **Toolbox**, click the **Text Tool**.
- Click and drag on the image to create a text editing region.
- On the **Options** bar, select text options and enter text.
- Click outside the text editing region to accept changes.

- 4.4.1 **Edit text.**

- In the **Toolbox**, click the **Text Tool**.
- Double-click on existing text to open the text editing region.
- Edit the text as required.
- Click outside the text editing region to accept changes.

- 4.4.1 **Delete text.**

- In the **Toolbox**, click the **Text Tool**.
- Double-click on existing text to open the text editing region.
- Delete the text as required.
- Click outside the text editing region to accept changes.

4.4.2 Copy, move text.

- In the **Toolbox**, click the **Text Tool**.
- Double-click on existing text to open the text editing region.
- Select the text to copy, move.
- On the **Edit** menu, click **Cut** or **Copy**.
- Paste the text into the desired location.

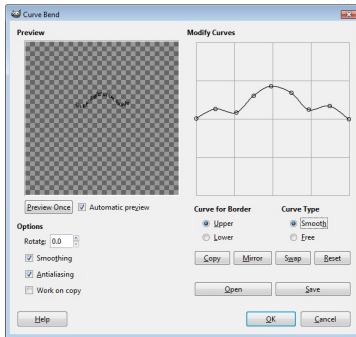
4.4.3 Align text: left, centre, right, justified.

- In the **Toolbox**, click the **Text Tool**.
- Double-click on existing text to open the text editing region.
- Select the text to align.
- In the **Tool Options**, select the desired justify alignment.

4.4.4 Apply text formatting: font sizes, font types, font colour.

- In the **Toolbox**, click the **Text Tool**.
- Double-click on existing text to open the text editing region.
- Select the text to format.
- On the **Options** bar, select the desired font size, font type or font colour.
- Click **OK** to accept font colour changes.

4.4.5 Apply a text warp.



- In the **Toolbox**, click the **Text Tool**.
- Double-click on existing text to open the text editing region.
- Select the text to text warp.
- On the **Filters** menu, click **Distorts** and **Curve Bend**.
- Select the desired **Curve** and adjust settings for **Border**, **Type** and **Rotate**.
- Click **OK**.

4.5 Effects and Filters

4.5.1 Apply artistic, distortion effects: pixelate, emboss, wind, ripple, twirl, desaturate.

- Select the image, part of image using a **Select Tool** from the **Toolbox**.
- To apply a pixelate effect, on the **Filters** menu, select **Blur** and click **Pixelize**.
- To apply an emboss effect, on the **Filters** menu, select **Distorts** and click **Emboss**.
- To apply a wind effect, on the **Filters** menu, select **Distorts** and click **Wind**.
- To apply a ripple effect, on the **Filters** menu, select **Distorts** and click **Ripple**.
- To apply a twirl effect, on the **Filters** menu, select **Distorts** and click **Whirl and Pinch**.
- To apply a desaturate effect, on the **Colors** menu, click **Desaturate**.
- Adjust the settings as required.
- Click **OK**.

4.5.2 Apply blur effects: gaussian, motion.

- Select the image, part of image using a **Select Tool** from the **Toolbox**.
- To apply a Gaussian blur effect, on the **Filters** menu, select **Blur** and click **Gaussian Blur**.
- To apply a motion blur, on the **Filters** menu, select **Blur** and click **Motion Blur**.
- Adjust the settings as required.
- Click **OK**.

4.5.3 Apply lighting effects: lighting, flare.

- Select the image, part of image using a **Select Tool** from the **Toolbox**.
- To apply a lighting effect, on the **Filters** menu, select **Light and Shadow** and click **Lighting Effects**.
- To apply a flare effect, on the **Filters** menu, select **Light and Shadow** and click **Lens Flare**.
- Adjust the settings as required.
- Click **OK**.

4.5.4 Apply adjustments: brightness-contrast, hue-saturation, colour balance.

- Select the image, part of image using a **Select Tool** from the **Toolbox**.
- To adjust brightness-contrast, on the **Colors** menu, click **Brightness-Contrast**.
- To adjust hue-saturation, on the **Colors** menu, click **Adjust Hue-Saturation**.
- To adjust colour balance, on the **Colors** menu, click **Color Balance**.
- Adjust the settings as required.
- Click **OK**.

4.5.5 Apply sharpen mask.

- Select the image, part of image using a **Select Tool** from the **Toolbox**.
- On the **Filters** menu, select **Enhance** and click **Sharpen**.
- Adjust the settings as required.
- Click **OK**.

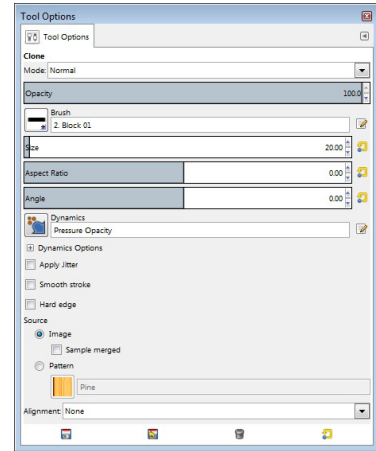
4.5.5 Apply unsharpen mask.

- On the **Filters** menu, select **Enhance** and click **Unsharp Mask**.
- Adjust the settings as required.
- Click **OK**.

4.5.6 Apply red eye reduction.

- Select the image, part of image using a **Select Tool** from the **Toolbox**.
- On the **Filters** menu, select **Enhance** and click **Red Eye Removal**.
- Adjust the settings as required.
- Click **OK**.

5.2.6 Clone a portion of an image using a clone tool, selecting size, opacity.



- In the **Toolbox**, click the **Clone Tool**.
- In the **Tool Options**, click the **Opacity**, **Brush** and **Size** required, and adjust other settings as required.
- Hold the **Ctrl** key and make your clone selection.
- Click the required location to place the cloned content.

5 Drawing and Painting

5.1 Drawing Tools

5.1.1 Add a line to an image: straight line, free drawn line, curves. Set, modify line weight, style and colour.

- In the **Toolbox**, click the **Paintbrush Tool** or **Pencil Tool**.
- In the **Tool Options**, select the desired **Brush**, **Size**, **Aspect Ratio** and **Angle**.
- Draw the line.

5.1.2 Add a shape to an image: rectangle, ellipse, n-shaped polygon. Set, modify line, fill style and colour.

- In the **Toolbox**, click the **Rectangle Select Tool**, **Free Select Tool** or **Ellipse Select Tool**.
- Draw the shape using the select tool.
- To create a filled shape, in the **Toolbox**, choose a **foreground color** and fill the selection with the **Bucket Fill Tool**.
- To create an outline shape, on the **Edit** menu, click **Stroke Selection**.
- Adjust the settings as required and click **Stroke**.

5.2 Painting Tools

5.2.1 Pick up a colour value with the dropper.

- In the **Toolbox**, click the **Color Picker Tool**.
- Select the colour of the image to pick and click that colour to select.

5.2.2 Fill a portion of an image with the gradient tool, selecting opacity/transparency, radial, linear, position, rotation.

- In the **Toolbox**, click the **Blend Tool**.
- In the **Tool Options**, click the required **Opacity**, **Gradient**, **Shape**, **Repeat** and **Offset**.
- Click the gradient start location and drag to a finish location to apply the gradient.

5.2.3 Colour a portion of an image with the paintbrush tool, selecting colour, shape, size.

- In the **Toolbox**, click the **Paintbrush Tool** and click a **Foreground Color**.
- In the **Tool Options**, click the **Brush** and **Size** required.
- Colour the portion of the image.

5.2.4 Erase a portion of an image with the eraser tool, selecting its shape and size.

- In the **Toolbox**, click the **Eraser Tool**.
- In the **Tool Options**, click the **Brush** and **Size** required.
- Erase the portion of the image.

5.2.5 Fill a portion of an image with colour using the paint bucket tool.

- In the **Toolbox**, click the **Bucket Fill Tool**.
- Click a **Foreground Color**.
- Fill the portion of the image with the colour.

6 Prepare Outputs

6.1 Setup

6.1.1 Preview an image.

- On the **File** menu, click **Print**.
- Click the **Image Settings** tab to view the print preview.

6.1.2 Select appropriate colour depth, resolution, image size, graphic format for web, screen, print use.

- To adjust colour depth, on the **Image** menu, click **Mode**.
- Click the colour depth mode required.
- To adjust resolution or image size, on the **Image** menu, click **Scale Image**.
- Click the resolution or image size required.
- To adjust graphic format, on the **File** menu, click **Export**.
- Click the graphic format required.
- Click **Export**.

6.2 Print

6.2.1 Change print output orientation: portrait, landscape.

- On the **File** menu, click **Print**.
- On the **General** tab, click **Preferences**.
- Under **Orientation**, click **Portrait** or **Landscape**.
- Click **OK**.

6.2.1 Change paper size.

- On the **File** menu, click **Print**.
- On the **General** tab, click **Preferences**.
- Under **Paper sizes**, click the paper size required.
- Click **OK**.

6.2.2 Print an image to an installed printer using defined options, default settings.

- On the **File** menu, click **Print**.
- Select additional print options if required.
- Click **Print**.

For more information, visit: www.ecdl.org