

**NATIONAL TVET COMPREHENSIVE ASSESSMENT**

**SCHOOL YEAR 2020-2021**

**SECTOR: ICT**

**TRADE: COMPUTER APPLICATION**

**RTQF LEVEL 3**

**MODULE CODE AND TITLE: COAGB301-Graphic Design Basics**

**DURATION: 3 Hours**

Max: 100 marks

**INSTRUCTIONS**:

Read the following instructions carefully before answering:

* This question paper is composed of Three sections A ,B and C.
* Attempt all questions of Section A. **(55 marks)**
* Attempt any three questions of Section B. **(30 marks)**
* Attempt any one questions of Section C. **(15 marks)**

**MAKING GUIDE**

**Question 1.** Fill the following sentences / gaps **2marks**

**i**………………. element is a physical point in a raster image or the smallest addressable in all points addressable display device; so it is the smallest controllable element of a picture represented on the screen.

**ii.** what does image resolution mean? **2marks**

iii. How does image resolution play out on my computer monitor? **1mark**

Answer/

1. – **Adigital Imaging,**

* **A pixel**
* **Picture**

1. **Resolution** refers to the number of pixels in an image. Resolution is sometimes identified by the width and height of the image as well as the total number of pixels in the image.
2. The computer screen you are looking at right now is set at a particular resolution as well. The larger the screen, the larger you likely have your screen resolution set. If you have a 17" monitor, likely you have it set at 800 x 600 pixels. If you have a 19" screen it is likely set at 1024 x 768. You can change the settings but these are optimum for those screen sizes.

**Reference:** Curriculum RTQF Level 3, Learning Unit 1: Introduce graphic design basics, Learning Outcome1.1: Describe key features and formats of digital images page 405

**Question 2.** A) Give two ways used to measure a picture size. **3marks**

**Answer/**

**- pixel**

**-byte**

b) What is Data compression? **2marks**

Data Compression is a method of decreasing the size of the data without significant/importance loss of information.

**Reference:** Curriculum RTQF Level 3, Learning Unit 1: Introduce graphic design basics, Learning Outcome1.1: Describe key features and formats of digital images page **405**

**Question 3.** Write in full word **5marks**

1. .**JPEG:** Joint Photographic Expert Group
2. .**PNG:** Portable Network Graphics
3. .**TIFF**: Tagged Image File Format
4. .**BMP:** Bitmap
5. .**PDF:** Portable Document Format

**Reference:** Curriculum RTQF Level 3, Learning Unit 1: Introduce graphic design basics, Learning Outcome1.1: Describe key features and formats of digital images page **405**

**Question 4.** What is the difference between **Lossy** and Lossless image file compression? **5marks**

**Answer/**

**Lossy image file compression**

* Lossy compression means that as the file size is compressed, the picture quality remains the same.

Lossless image file compression

* Permanently removes data

**Reference:** Curriculum RTQF Level 3, Learning Unit 1: Introduce graphic design basics, Learning Outcome1.1: Describe key features and formats of digital images page **405**

**Question 5.** Differentiate **Illustrator** and **InDesign** **5marks**

**Answer/**

**Illustrator AI**

• AI file extension represents Adobe Illustrator Artwork file. This graphics file format is a creation of Adobe systems for containing vector based graphics in a single page.

**InDesign INDD**

• An INDD file is a professional page layout project created with Adobe InDesign. It includes page formatting information, page content, linked files, styles, and swatches.

• INDD files are commonly used for creating and formatting books, magazines, newspapers, flyers, and brochures.

**Reference:** Curriculum RTQF Level 3, Learning Unit 1: Introduce graphic design basics, Learning Outcome1.1: Describe key features and formats of digital images page **405-406**

**Question 6.** a) Whatdo you understand Capture? **1marks**

**Answer/**

Capture is the process of acquiring/obtaining/getting data for use at some later date, usually by converting an analog signal into a digital one, such as a video capture card converting a TV signal to digital video.

1. The process of image capture can be divided into four steps. List them **4marks**

The process of image capture can be divided into four steps. These are:

• Capture

• Store

• Edit

• Display

**Reference:** Curriculum RTQF Level 3, Learning Unit 1: Introduce graphic design basics, Learning Outcome 1.2: Capture digital images page **407**

**Question 7**. What is the difference between USB Cable and USB Port**? 5marks**

* Universal Serial Bus (USB) is an [industry standard](https://en.wikipedia.org/wiki/Technical_standard) that establishes specifications for cables and connectors and [protocols](https://en.wikipedia.org/wiki/Communication_protocol) for connection, communication and power supply ([interfacing](https://en.wikipedia.org/wiki/Interface_(computing))) between computers, [peripherals](https://en.wikipedia.org/wiki/Peripheral) and other computers.
* transferring images from a digital camera is to connect the camera to your PC by using a USB cable.

<https://en.wikipedia.org/wiki/USB>

* (**U**niversal **S**erial **B**us) A hardware interface that supports up to 127 peripherals. USB is used to attach keyboards, mice, printers, external storage and mobile devices to the computer

<https://www.pcmag.com/encyclopedia/term/usb#:~:text=(1)%20See%20USB%20drive%20and,products%20(see%20USB%20power)>.

**Reference:** Curriculum RTQF Level 3, Learning Unit 1: Introduce graphic design basics, Learning Outcome 1.2: Capture digital images page **407**

**Question 8.** a) There are two **(2)** ways you can use to capture digital image, list them **2marks**

**- Analog Model**

**-Digital Model**

b) To convert an analogue image to a digital image, there are three **(3)** possibilities as far as equipment or hardware concerned/ involved: List them **3marks**

* Digitising board (frame grabber/video board) plus analogue input (e.g. camera, videotape)
* Scanner (hand-held, flat-bed, transparency)
* Digital camera

**Reference:** Curriculum RTQF Level 3, Learning Unit 1: Introduce graphic design basics 405

**Question 9.** List five **(5)** equipment or hardware required for capturing image in analogy model **5marks**

* camera (input device)
* colour balancer (restore colour balance to images)
* wave form monitor (monitors the quality of the signal)
* colour monitors (to visualise the process)
* video tape recorder/recordable videodisc (recording device)

**Reference:** Curriculum RTQF Level 3, Learning Unit 1: Introduce graphic design basics 405

**Question 10**. **A)** What are the **four (4)** steps of saving image from website. **4marks**

**Answer/**

1. Open a Web browser.

2. Find an image to download. Do so by browsing or running a search for a specific image.

3. Tap and hold an image to open it.

4. Tap Save Image. The image will be saved to your device, and you can view it in the Photos app.

**b)** what is Graphic Designer **1mark**

**Answer/**

* A graphic designer is a professional within the graphic design and graphic arts industry who assembles together images, typography, or motion graphics to create a piece of design.

**Reference:** Curriculum RTQF Level 3, Learning Unit 1: Introduce graphic design basics/ Learning Outcome 1.3: Describe core concepts and elements of Graphic Design page 408

**Question 11.** Match the following table **5marks**

|  |  |  |
| --- | --- | --- |
|  | **Color** | **Meaning** |
| I**…..D** | I.Orange | 1. is the color of a wareness. In the meaning of colors it can mean romanticism and structure as well as ceremonial |
| II**… E** | II.Red | 1. is the color of balance and growth/development. It can mean both self-reliance/independence as a positive and possessiveness as a negative, among many other meanings |
| III**….A** | III.Indigo | 1. Is the color of the mind and the mental power. It is positive and happy. However it can also suggest impatience, criticism and cowardice |
| IV**…B** | IV.Green | **D.** Is the color of social communication and optimism/hopeful From a negative color meaning it is also a sign of pessimism (/belief that bad things will happen) and superficiality |
| V**…C** | V.Yellow | **E.** Is the color of energy, passion/desire, action, ambition and determination/willpower. It is also the color of anger and sexual passion/desire. |
|  |  | F. Color of the imagination, It can be creative and individual or young and impossible |

**Reference:** Curriculum RTQF Level 3, Learning Unit 1: Introduce graphic design basics/ Learning Outcome 1.3: Describe core concepts and elements of Graphic Design page 408

**SECTION B:** Attempt any three questions of Section B. **(30 marks)**

**Question 12**. **a)** outline three **(3)** different types of colors **3marks**

**Answer/** There are three different types of colors:

• Primary

• Secondary

• Tertiary colors

b) Define the term Line? **2mark**

**Answer/** Line is an element of art defined by a point moving in space. Lines can be vertical, horizontal, diagonal or curved.

1. what are five **(5)** graphic design principles you know **5marks**

* Balance (Symmetrical Asymmetrical Radial)
* Proximity
* Alignment
* Repetition
* Contrast
* White space
* Simplicity
* Alignment
* Function

**Reference:** Curriculum RTQF Level 3, Learning Unit 1: Introduce graphic design basics/ Learning Outcome 1.3: Describe core concepts and elements of Graphic Design page 408

**Question 13.** a) a) Identify **nine (9)** Graphic design process step by step in Graphic Design. **9marks**

Answer/

• Identify the need and Define Problem

• Research the problem

• Develop possible solution

• Evaluate the alternatives & select most promising solution

• Construct a prototype

• Test and evaluate the prototype

• Create or make

• Communicate the design

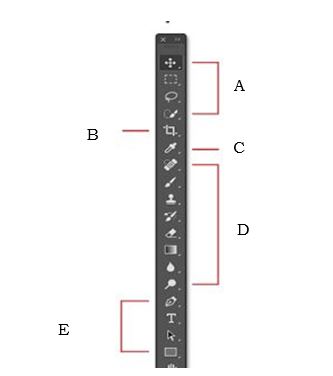
• Redesign

b) what is Function **1mark**

**answer/** is the consideration of the main objective for a piece of graphic work and how well a design is traveled and executed to meet that end.

**Reference:** Curriculum RTQF Level 3, Learning Unit 1: Introduce graphic design basics/ Learning Outcome 1.6: Use design process and write creative briefs 412

**Question 14. a)** Name the following parts of Photoshop tools Layout **10marks (2marks for each tools)**



**Answer/ A: Move and selection tool**

**B: Crop and slice tools**

**C: Measurement tools**

**D: Retouching and painting tools**

**E: Drawing and Typing tools**

**Reference:** Curriculum RTQF Level 3, Learning Unit 2: Apply Photoshop basics page 414

**SECTION C: Attempt any one questions of Section C. (15 marks)**

**Question 15.** a) what is a layer?

Answer/

layer is like sheet/page provide a way to manage all the items that make up your artwork. In graphics software, a layer is the term used to describe the different levels at which you can place an object or image file.

b) Outline five (5) advantages of layer

Advantage of Layer

• Organizing your content

• Making it easier to select, hide, or lock content

• Allowing you to make appearance changes to the content of an entire layer

• Creating templates for tracing

• Creating animations for Flash and GIF files

• Separating parts of the image and editing them without affecting other parts of the image

• Using layers as guides or reference without including them in the final image

• Importing new images to add to the composition

• Moving the new image around, resizing it, and doing whatever you like without damaging the original image

• Creating multiple versions of a layer and experimenting with different effects

• Applying filters and effects to layer independently

**b)** what are five (5) ways you can use to apply colors on object **5marks**

There are 5 ways you can use to apply colors on object

• Using the Swatches panel

• Using the Color panel

• Picking color from image

• Using the Gradient panel

• Using Transparency/opacity

**Reference: Curriculum RTQF Level 3, Learning Unit 2: Apply Photoshop basics / Learning Outcome 2.2: Use Crop, layers and selections tools 414-446**

**Question 16. a)** How to add text to your InDesign Projects with the Type tool

**5 marks**

**Answer/**

**Add text with the Type tool**

1. Select the Type tool in the toolbox.

2. With the Type tool selected, drag in the Document window to add a text frame to the document, or click in an existing text frame to add text.

3. Choose Type > Fill with Placeholder Text to fill the frame with placeholder text. 4. With the text cursor in the text frame, type your text. [80]

5. Format text with the options in the Properties panel.

b) how to create columns of text to your InDesign Projects with Type tool **10marks**

**answer**

**Create columns of text**

1. Select the Type tool in the toolbox.

2. With the Type tool selected, drag in the Document window to add a text frame to the document.

3. With the text cursor in the text frame, by default, type your text.

4. With the Selection tool in the toolbox selected, double-click a bounding box point around the frame to fit the frame to the text.

5. Choose Object > Text Frame Options. Set the number of columns to 2 and select Balance Columns to balance the paragraphs of text. Set other options as needed, and then click OK.

**Reference: Curriculum RTQF Level 3, Learning Unit 3: Apply illustrator basics/ Learning Outcome 3.1: Create and open documents page 424**

END