higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE (VOCATIONAL)

MULTIMEDIA BASICS
NQF LEVEL 2

20 November 2024

This marking guideline consists of 6 pages.

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SECTION A

QUESTION 1

1.1	1.1.1	B	
	1.1.2	D	
	1.1.3	A	
	1.1.4	C	
	1.1.5	B	
	1.1.6	A	
	1.1.7	D	
	1.1.8	B	
	1.1.9	C	
	1.1.10	A	
			(10 × 1) (10)
1.2	1.2.1	False	
	1.2.2	True	
	1.2.3	False	
	1.2.4	False	
	1.2.5	True	
	1.2.6	False	
	1.2.7	True	
	1.2.8	False	
	1.2.9	True	
	1.2.10	True	
			(10 × 1) (10)
1.3	1.3.1	B	
	1.3.2	F	
	1.3.3	I	
	1.3.4	C	
	1.3.5	J	
	1.3.6	A	
	1.3.7	H	
	1.3.8	G	
	1.3.9	E	
	1.3.10	D	
			(10 × 1) (10)

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1.4	1.4.1	resolution
	1.4.2	pixel
	1.4.3	vector
	1.4.4	color depth
	1.4.5	sound waves
	1.4.6	OCR/Optical Character Recognition
	1.4.7	sepia
	1.4.8	negative
	1.4.9	script
	1.4.10	Alteration/editing

(10 × 1) (10)

1.5	1.5.1	RGB
	1.5.2	value
	1.5.3	reflected
	1.5.4	Warm
	1.5.5	vector
	1.5.6	Audacity
	1.5.7	serif
	1.5.8	development
	1.5.9	clip-on
	1.5.10	ND (neutral density)

(10 × 1) (10)

TOTAL SECTION A: 50

SECTION B

QUESTION 2

2.1 Lossy compression reduces the file size✓ significantly by discarding certain information from the original file,✓ resulting in a smaller file size✓that transmits fast over the internet✓ and doesn't take a lot of space to save.✓ The disadvantage is that it loses quality and once information is lost it cannot be retrieved. (5)

2.2 Multimedia interactivity means the end user can interact with a multimedia program.✓ The end user controls what kind of content✓ is to be delivered, when✓ it should be delivered, and in what sequence it is to be delivered. The program's output depends on the user's input. (3)

2.3 Rigging is when an object that is created digitally is given a digital skeletal structure✓ that can be used to control the web of points✓ that interlock to make up the structure. This give the object the ability to be manipulated✓ from various points✓ in its structure. (4)

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2.4 2.4.1 Text refers to any text that is displayed in a film.✓ This includes titles,✓ captions,✓ credits, explanatory paragraphs and subtitles.

2.4.2 Sound sets the mood of a film and creates emotion.✓ Sound includes voice✓ (narration, dialogue), music✓ and sound effects.

2.4.3 Transitions are used to move from one scene to the next or one item of content to another in an interesting way.✓ Transitions include dissolves,✓ fades,✓ wipes, and fades.

(3 × 3) (9)

2.5 Visual stories are meant to be seen whereas a book is meant to be read. The setting, scene and characters are described in a book and the reader must try to picture it.✓ In a movie the setting, scene and characters are seen which means that no description is needed because the audience can see it for themselves.✓

In a movie there is more action to show the character's thoughts, emotions and mood e.g. slamming a door closed to show anger✓ whereas in books these emotions are described with words.✓ (2 × 2) (4)

[25]

QUESTION 3

3.1 A logo should be able to work in digital- or print media.✓ It should have the ability to be scaled up or down✓ e.g. billboard or business card. A logo should work in different formats✓ – horizontal or vertical. A logo should be able to print in colour or black and white,✓ or in reverse (light logo on dark background or the other way around.✓ (5)

3.2 Symbols are useful to simplify communication,✓ bridge language divides,✓ enhance literacy and learning,✓ visualize identity,✓ present participation or opinions, give access to information, and direct people's participation. (4)

3.3 The analogue signal is transmitted from the microphone to the Analogue-to-Digital Converter (ADC).✓ The ADC converts this signal to a series of numbers.✓ The quantity of numbers produced per second is called the sample rate.✓ These numbers are stored on digital tape, hard drive or memory card.✓ To playback, the sequence of numbers is transmitted to the Digital-to-Analogue (DAC), which converts the numbers back into an analogue signal.✓ This is played through speakers.✓ (6)

3.4 3.4.1 Modulation is when the sound signal is changed✓ by altering the form of the sound wave.✓

3.4.2 Pitch refers to how high✓ or low a sound is.✓

(2 × 2) (4)

3.5
- The analogue signal is transmitted from the microphone to the Analogue-to-Digital Converter (ADC)
- The ADC converts this signal to a series of numbers.
- The quantity of numbers produced per second is called the sample rate.
- These numbers are stored on digital tape, hard drive, or memory card
- During playback, the sequence of numbers is transmitted to the Digital-to-Analogue (DAC), which converts the numbers back into an analogue signal.
- This is played through speakers. (4)

3.6 The histogram is a graph that shows the brightness distribution of an image,✓ with pure black on one end, pure white on the other, and grey in the middle. It is a true representation of pixels recorded in a digital image.✓ (2)
[25]

QUESTION 4

4.1 Camera body or housing,✓ light sensitive material,✓shutter,✓ lens,✓ viewfinder.✓ (5)

4.2 Lens aperture is an opening✓ inside the lens of the camera✓ that can gradually be opened or closed✓ to control the amount of light reaching the photographic film or LCD sensor.✓ The opening is measured in f-stops.✓ The lower the f-stop number is, the larger the opening and the more light can reach the sensor. A big aperture opening allows photographs to be taken in low light. (5)

4.3 4.3.1 Wide framing shows the subject's environment e.g. if you photograph a person, the full figure of the person✓ is included as well as their environment.✓ This technique is usually used for landscape✓ photography because it shows a large area. (3)

4.3.2 Close-up framing is used to show detail✓ e.g. facial expressions. ✓ The shot is framed from above the subject's shoulders to above his head.✓ Extreme close-ups frame extreme detail e.g. a person's eye. (3)

4.4 Photographers use the grid✓ in different ways. Objects or people are placed on the four corners where the grid lines meet to create a centre area or point of focus.✓ The object can also be placed on only two points of the picture frame or in one-third to hold the viewer's attention but allow their eyes to wander around the frame.✓ (3)

4.5 Desktop publishing is the creation of documents such as certificates or magazines using dedicated software on a personal desktop computer.✓ Originally, it was used for print publications printed on a laser printer✓ but these days it is also used in the creation of various formats of digital content e.g. blogs and digital newspapers. (2)

4.6 Layout is the arrangement and styling✓ of design elements and principles on a page,✓ and the use of type and image to convey a message.✓ It is a branch of graphic design that uses graphic software to create advertisements, signage, exhibition material, and packaging.✓ (4)
[25]

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QUESTION 5

5.1 In computer graphics, texture filtering or texture smoothing is the method used to determine the texture colour for a texture mapped pixel, using the colours of nearby texels (i.e. pixels of the texture). Filtering describes how a texture is applied at many different shapes, sizes, angles and scales.

Texture filtering is a technique in computer graphics where pixel maps are used to fill in a particular graphic area. It uses "texels" - individual picture pixels in a larger texture map1. Texture filtering is used to determine the texture colour for a texture mapped pixel, using the colours of nearby texels. There are two main categories of texture filtering: magnification filtering and minification filtering (2)

5.2 Opacity refers to how transparent,✓ see-through✓ or opaque an image is. (2)

5.3 5.3.1 Rotoscoping is tracing over live-action footage✓ frame by frame✓ to create animated movements.✓ (3)

5.3.2 In stop-motion animation, physical objects are moved incrementally✓ and photographed✓ to create the illusion of movement✓ when the frames are played in sequence. (3)

5.4 To create the illusion of movement✓ and continuous action, for the engagement and entertainment of an audience.✓ (2)

5.5 It plays a crucial role in establishing the personality and traits of a character.✓ It helps to make a character memorable,✓ recognisable✓ and relatable which is essential for a compelling narrative. It can also influence the aesthetic and set the mood. (3)

5.6 It is the process where the animation software✓ produces the final frame-by-frame image.✓ The software calculates exactly what the images look like according to the models, materials, shaders, lighting, texture and animation that were created by the animator.✓ (3)

5.7 Entertainment,✓ education,✓ science ✓ engineering and medicine. (3)

5.8 Sensors are placed at specific points on the body of a human actor.✓ He or she then performs the required movements or action.✓ These are recorded by the computer and mapped onto a 3D model.✓ The model is now able to move as the human did.✓ (4)

[25]

TOTAL SECTION B: 100
GRAND TOTAL: 150

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