higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

MULTIMEDIA BASICS
NQF LEVEL 2

(10040162)

2 December 2020 (X-paper)
09:00–12:00

This question paper consists of 10 pages.

215Q1N2002

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TIME: 3 HOURS
MARKS: 150

INSTRUCTIONS AND INFORMATION

1. Answer all the questions.
2. Read all the questions carefully.
3. Number the answers according to the numbering system used in this question paper.
4. Start each section on a new page.
5. Write neatly and legibly.

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SECTION A

QUESTION 1

Various options are given as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question number (1.1–1.15) in the ANSWER BOOK.

1.1 Animation can be defined as a …

A picture book opened very fast in front of you.
B simulation of movement created by displaying a series of pictures or frames.
C slide show on a computer screen.
D story.

1.2 … software can rotate, stretch and combine images with other model objects.

A 2-D modelling
B Real-time modelling
C 3-D modelling
D Motion modelling

1.3 … is the 3-dimensional space that an object occupies.

A Motif
B Line
C Space
D Form

1.4 A video clip merging and transforming into another image is …

A streaming.
B morphing.
C 3-D modelling.
D reverse animation.

1.5 … processes are necessary to create a 3-D animation.

A One
B Two
C Three
D Four

1.6 The higher the number of pixels in an image the … image quality.

A worse
B better
C smaller
D darker

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1.7 A .gif format is much … to download or upload on the internet than .png.

A slower
B faster
C bigger
D better

1.8 The traditional speed of frames in a 2-D animated motion picture …

A varies according to the number of drawings.
B is 48 frames per second.
C depends on how much motion is taking place in the film.
D is 24 frames per second.

1.9 Bitmap can be defined as …

A two-dimensional monochrome raster images.
B three-dimensional images.
C flat pictures used in movies.
D coloured drawings used in cartoons.

1.10 In the colour model theory colour depth refers to …

A how bright the colour appears to clients.
B the dominant colour in the image.
C the number of bits used to represent a colour.
D the primary colours in an image.

1.11 The most important skill needed by a person who wants to pursue animation as a career is …

A mathematics.
B science.
C drawing.
D photography.

1.12 The process of adding colour, reflection, transparency, translucency and roughness to a 3-D character is called …

A colouring.
B sculpting.
C texturing.
D airbrushing.

1.13 What is a 3D object?

A Having three dimensions (such as height, width and depth) like any object in the real world.
B A three-dimensional view created by pencil
C An object getting the 3-dimensional views from nature
D A three-dimensional character design

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1.14 What does the in-between artist do in traditional cell animation?

A Draws key frames
B Draws or paints background
C Draws all intermediate frames between key frames
D Decides the timing of the animation

1.15 Roto-scoping can be defined as … 

A an animation technique used to trace motion picture footage, frame by frame, to produce realistic action.
B copying the movement of humans into cartoons.
C the technique of converting 2-D animation to 3-D animation.
D the advanced techniques used to make drawings resemble live animals or humans.

(15 × 1) **[15]**

QUESTION 2

Indicate whether the following statements are TRUE or FALSE by writing only 'True' or 'False' next to the question number (2.1–2.10) in the ANSWER BOOK.

2.1 Left align is a typesetting format in which the lines are aligned on both the left and right edges of the column or page.

2.2 Contour lines is a type of line that can be used in drawings.

2.3 X-height refers to the invisible line on which a font rests. 

2.4 Typefaces that are without little tails at the end of certain characters are called Sans Serif.

2.5 Landscape is the term given to a text block, page or image which has a width larger than its height.

2.6 Proofreading is the ease with which a typeface can be read immediately.

2.7 Leading is the spacing placed between individual characters.

2.8 Typesetting is the composition of text, including sizes, spacing, and typeface choices.

2.9 Too many graphics may distract and lead to a de-emphasis on the written word.

2.10 Typography is a technique of arranging type to make written language legible, readable and appealing when displayed. 

(10 × 1) **[10]**

QUESTION 3

Choose a term from COLUMN B that matches a description in COLUMN A. Write only the letter (A–P) next to the question number (3.1–3.15) in the ANSWER BOOK.

COLUMN A		COLUMN B	
3.1	Moment of greatest intensity in a work of fiction	A	antagonist
3.2	Conscious state of mind or main emotion 	B	character
3.3	Narration intended to enforce a useful truth, frequently involving animals speaking and acting like humans	C	climax
		D	plot
3.4	Struggle, disagreement, or difference between opposing forces in storybook	E	dialogue
		F	fiction
3.5	Story about people and events that are not real	G	mood
3.6	Figure of speech in which word or phrase meaning one kind of object or idea is used in place of another	H	narrative 
		I	conflict
3.7	Person who says the words heard as part of a story	J	personification
3.8	Short story that teaches a moral or spiritual lesson	K	resolution
3.9	Conversations between characters in fictional story	L	metaphor
3.10	He or she is given a specific attitude or attitudes, appearance, name, et cetera	M	parable
		N	narrator
3.11	Attributing human characteristics to something that is not human	O	fable
3.12	Main character in work of fiction conflicting with hero or heroine	P	paragraph
3.13	Direction of story's main events and incidents and how they relate to one another		
3.14	Style or manner of expression in speaking or writing 		
3.15	Act of finding an answer or solution to conflict or problem		

(15 × 1) **[15]**

QUESTION 4

Choose a term from the list below for each of the following descriptions and write it next to the question number (4.1–4.10) in the ANSWER BOOK.

motion video; teleconference; compression; home theatre; authoring system; digitisation; codec; multimedia; streaming; desktop publishing

4.1 A software that helps a designer to create and print projects from business cards and flyers to magazines, books and posters.

4.2 The process of transforming analogue video signals into digital information

4.3 A multiparty telephone call, set up by a phone company or private source, enabling more than two callers to participate in a conversation.

4.4 Combination of audio-video components such as TV, VCR, DVD player and surround-sound speaker systems.

4.5 Delivery of information combining different content formats like motion video, audio, still images, graphics, animation and text.

4.6 Technology converting analogue signals such as video and voice signals into digital form compressing them to conserve bandwidth on transmission path.

4.7 Translation of data (video, audio, digital, or a combination) using a variety of computer compression procedures and other techniques to reduce required data accurately representing content.

4.8 Software helping developers design interactive courseware easily without the painstaking detail of computer programming.

4.9 Video in real motion by displaying a sequence of images (frames) rapidly enough that the eye sees the image as a continuously moving picture.

4.10 Technique for listening to music or watching video without having to download it.

(10 × 1) **[10]**

TOTAL SECTION A: 50

SECTION B

QUESTION 5

5.1 Describe the term *image processing*. (2)

5.2 Describe FOUR advantages of image processing using computer software. (4 × 2) (8)

5.3 State THREE software applications that are used to manipulate images. (3)

5.4 List FOUR aspects of a photograph that can be addressed using the image histogram. (4)

5.5 Determine the type of lens that a photographer would use to take the following types of photographs:

5.5.1 Portraits

5.5.2 Birds in their natural habitat

5.5.3 Landscapes

(3 × 1) (3)
[20]

QUESTION 6

6.1 Compare the saving methods of an analogue camera and a digital camera. (2)

6.2 Explain TWO methods of downloading images from a digital camera. (2)

6.3 Explain each of the following concepts of photography:

6.3.1 Shutter speed

6.3.2 Lens aperture

(2 × 2) (4)

6.4 Distinguish between FOUR types of microphones. Highlighting the type of situation each microphone would be used for in your answer. (4 × 2) (8)

6.5 Discuss the following types of noise in recordings:

6.5.1 Narrowband noise

6.5.2 Irregular noise

(2 × 2) (4)
[20]

QUESTION 7

7.1 Distinguish between THREE *camera angles* a photographer could utilise to create effective images. Use of examples in to explain the answer. (3 × 3) (9)

7.2 Contrast between the *dodge tool* and the *burn tool* used in digital image editing. (2 × 1) (2)

7.3 List THREE sound effects that could give a listener the impression that he/she is in a busy part of town. (3)

7.4 Name ONE characteristic of each of the following types of stories that will clearly distinguish the story types from one another:

7.4.1 TV soapies

7.4.2 Film stories

7.4.3 Game stories

(3 × 1) (3)

7.5 Classify THREE formats that audio files can be saved in. (3)

[20]

QUESTION 8

8.1 Discuss each of the following lights used in 3-D lighting:

8.1.1 Omni lights (point lights)

8.1.2 Spotlights

8.1.3 Area lights

(3 × 3) (9)

8.2 Describe each of the following animation terms:

8.2.1 Key frames

8.2.2 In-betweens

(3 × 2) (6)

8.3 Explain the function of the *aperture* of a digital camera. (2)

8.4 Explain the concept of *sound processing*. (3)

[20]

QUESTION 9

9.1 Discuss the use of each of the following elements of multimedia in everyday life:

9.1.1 Text

9.1.2 Animation

9.1.3 Sound

9.1.4 Video

(4 × 2) (8)

9.2 Discuss how *typography* helps to improve readability in website design. (3)

9.3 Define the term *typeface*. (2)

9.4 Name THREE sound recording formats. (3)

9.5 List FOUR warm colours that can be used in multimedia design. (4)
[20]

TOTAL SECTION B: 100
GRAND TOTAL: 150

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