



NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMPUTING AND INFORMATICS

DEPARTMENT OF INFORMATICS

QUALIFICATION: Bachelor of Informatics : Bachelor of Entrepreneurship	
QUALIFICATION CODE: 07BAIF : 07BENT	COURSE LEVEL: NQF LEVEL 7
COURSE: Multimedia Applications	COURSE CODE: MMA710S
DATE: July 2019	SESSION: 2
DURATION: 2 Hours	MARKS: 70

SECOND OPPORTUNITY/SUPPLEMENTARY EXAMINATION QUESTION PAPER	
EXAMINER(S):	Mr Johnson Billawer
MODERATOR(S):	Dr. Victoria Hasheela-Mufeti

THIS EXAMINATION PAPER CONSISTS OF 3 PAGES
(INCLUDING THIS FRONT PAGE)

Instructions for the students

- 1. Write all your answers in the answer booklet provided.**
- 2. Answer ALL questions.**
- 3. Marks/scores per question are given in [].**
- 4. Do not use or bring into the examination venue books, mobile devices and other material that may provide you with unfair advantage. Should you be in possession of one right now, draw the attention of the examination officer or invigilator.**
- 5. The use of calculators in this course is allowed.**
- 6. NUST examination rules and regulations apply.**

QUESTION 1:**[10 Marks]**

- a) A friend shared a multimedia movie to watch. What type of multimedia project is this? Justify your answer. (3)
- b) Which character set uses 8-bit codes to provide additional 128 characters not included in ASCII set? (1)
- c) State any six forms of communication used through the ages. (3)
- d) Assume you are working on a multimedia website project. Explain what a story board is and how it will guide you in the process of creating a website. (3)

QUESTION 2:**[20 Marks]**

- a) There are several established colour models used in computer graphics. Answer the following questions.
- i) Briefly discuss the HSL colour model (5)
- ii) Determine how many colours will be displayed in each of the following images. (3)
- a) 8-bit image
- b) 16-bit image
- c) 24-bit image
- b) Discuss critical aspects regarding designing text for multimedia. (12)

QUESTION 3**[15 Marks]**

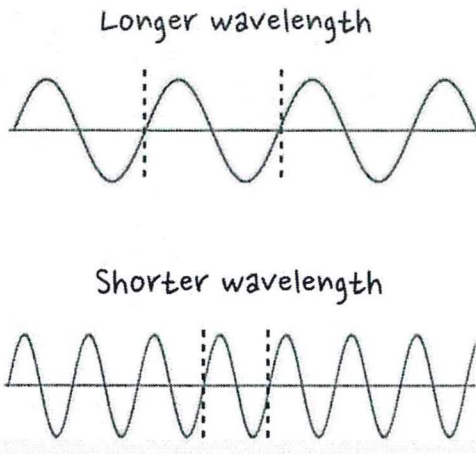
- a) You are participating in a team project designing a multimedia website. Answer the following questions.
- i) Identify any five members to be part of a multimedia team and discuss their roles. (10)
- ii) Apart from the technical skills. What other abilities are required in multimedia development? (2)
- b) Explain the three types of "Fair Use" when using copyrighted materials. (3)

QUESTION 4

[25Marks]

a) Answer the following questions relating to sound in multimedia content development.

- i) Explain how sound is created (2)
- ii) Compare and contrast the two sound waves below in terms of frequency and pitch. (4)



- iii) Assume you have a speaker generating a sound at a frequency of 50 Hertz. How clear will this sound be to human beings? Justify your answer. (3)
- iv) Calculate the size of a 2-minute stereo song. The sample rate is for DVD quality using a bit depth of 16 bits. Show your calculations and convert your answer to Megabytes. (3)
- v) Explain the critical factors that need to be considered when preparing a digital audio file. (2)

b) Answer the following questions in relation to video and animation.

- i) What is animation? (1)
- ii) Identify any three animation techniques and briefly explain how they are used in creating animation (6)
- iii) Why is video compression important? (2)
- iv) How is video streaming different from how the internet works? (2)

THE END