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: June 2024	SESSION: 1
DURATION: 2 Hours	MARKS: 70

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

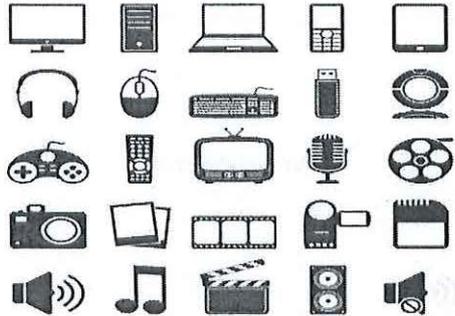## THIS EXAMINATION PAPER CONSISTS OF 3 PAGES
(INCLUDING THIS FRONT PAGE)

Instructions for the students

1. Answer ALL the questions.
2. Write clearly and neatly.
3. Number the answers clearly.
4. The use of calculators in this course is allowed.

QUESTION 1:   **[16 Marks]**

a) Analyse the graphics below and answer the following questions:

       i) What do you relate these graphics to in the context of the Multimedia course?   (2)

       ii) Select any three graphics and provide a practical example of how each relates to
multimedia.   (6)

       iii) Discuss the advantages and challenges in developing multimedia content.   (8)

QUESTION 2:   **[21 Marks]**

a) There are several established colour models used in computer graphics. Answer the following
questions:

       i) Compare and contrast RGB and CMYK colour models.   (10)

       ii) Why is bit depth important in images?   (3)

b) Why is it important to consider the different image file formats in a multimedia product
development project?   (2)

c) Differentiate the two types of images and provide two (2) examples of an image file format for
each.   (6)

QUESTION 3 [18 Marks]

a) Use the team project you worked on as part of this course reference. Answer the following questions.

    i) Identify any three (3) roles you played in the team project and highlight key activities performed for each role. (9)

    ii) Why do you think the client is an important stakeholder in a multimedia development project? (1)

    iii) Testing and Evaluation should be an ongoing process in Multimedia Development Projects. What happens after testing is completed and before handing over the product to the Client? 3)

b) A student prepared and gave a presentation in class. The presentation displays photographs but permission was not granted.

    i) State whether it was a fair use or not. Justify your argument. (2)

c) Assume you decided to commercialise your multimedia product. What exclusive rights do you have for your creative work? Use the Multimedia Team Project you completed as an example. (3)

Question 4 [15 Marks]

a) Explain how sound is represented on computers. (4)

b) State the frequency range that can be heard by any human being. (1)

c) Assume that you are recording a live performance (Mono) and you are using a sampling rate of 8,000Hz and a sample resolution of 8 bits: What is the minimum file size that will be created for a 30-second recording? Show your calculations and express your answer in bytes. (5)

d) *"Streaming is at odds with how the Internet works."* Explain this statement. (2)

e) Which broadcast television standard is used in Namibia? State the key features for this standard. (3)

THE END