



*(Knowledge for Development)*

**KIBABII UNIVERSITY**

**UNIVERSITY EXAMINATIONS  
2020/2021 ACADEMIC YEAR**

**END OF SEMESTER EXAMINATIONS  
YEAR FOUR SEMESTER ONE EXAMINATIONS**

**FOR THE DEGREE OF BACHELOR OF SCIENCE  
COMPUTER SCIENCE**

**COURSE CODE : CSC 471E  
COURSE TITLE : MULTIMEDIA  
TECHNOLOGIES**

**DATE: 15/06/2021 TIME: 02:00 P.M – 04:00 P.M**

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**INSTRUCTIONS TO CANDIDATES**

**ANSWER QUESTIONS ONE AND ANY OTHER TWO.**

### QUESTION ONE [COMPULSORY] [30 MARKS]

- a. Illustrate your understanding of the advancements brought about by Multimedia to the traditional media [4 Marks]
- b. i. Differentiate between Hypertext and Hypermedia [4 Marks]
- ii. Give four characteristics of Multimedia that make it distinct from other media [4 Marks]
- c. Show your understanding of the following multimedia terms:
- i. Synchronization devices [2 Marks]
  - ii. Multimedia platform [2 Marks]
  - iii. Authoring Software [2 Marks]
  - iv. Professional Multimedia Development Tools [2 Marks]
- d. Interpret to your colleague the role played by interaction devices in multimedia [4 Marks]
- e. i. What is Beta testing? [2 Marks]
- What are the advantages of using the above testing method over any other? [4 Marks]

### QUESTION TWO [20 MARKS]

- a. Elaborate on five (5) advantages of using multimedia. [10 Marks]
- b. i. What are analog media devices? [1 Mark]
- ii. With relevant examples, describe three categories of analog media devices [9 Marks]

### QUESTION THREE [20 MARKS]

- a. Compile various roles that authoring software play in the development of e-learning materials and content. [5 Marks]
- b. i. Describe two types of text [4 Marks]
- ii. Differentiate between font and typeface [4 Marks]

iii. Show your understanding of the following font terminologies

Kerning	[1 Mark]
Baseline	[1 Mark]
x-height	[1 Mark]
Leading	[1 Mark]
Ascenders	[1 Mark]
Serif	[1 Mark]
Tracking	[1 Mark]

#### QUESTION FOUR [20 MARKS]

- a. Illustrate the distinction that exists image resolution, display resolution and color resolution [6 Marks]
- b. Describe six categories of image processing techniques [12 Marks]
- c. What are sound waves? How does the human mind receive sound? [2 Marks]

#### QUESTION FIVE [20 MARKS]

- a. Discuss three reasons for sound not being left out in the creation of multimedia content. [6 Marks]
- b. Describe three types of analog video signal [6 Marks]
- c. Calculate the video file size of a documentary with the following:

Duration=10 mins

Frame rate=25 fps

Frame size=160 by 120

Colour resolution=8-bit

Give answer in MB [4 Marks]

- d. Describe four user interface tips you will give to your friend who wants to become a graphics designer [4 Marks]