



(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS 2019/2020 ACADEMIC YEAR

SPECIAL/SUPPLEMENTARY EXAMINATIONS YEAR FOUR SEMESTER ONE EXAMINATIONS

FOR THE DEGREE OF BACHELOR OF SCIENCE COMPUTER SCIENCE

COURSE CODE : CSC 471 E

**COURSE TITLE : MULTIMEDIA
TECHNOLOGIES**

DATE: 04 /02/2020

TIME: 02:00 P.M – 04:00 P.M

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

QUESTION ONE [COMPULSORY][30 MARKS]

- a. Illustrate your understanding of traditional media and other media. [4 Marks]
- b. Describe three sub categories of analog media devices with relevant examples. [6 Marks]
- c. Show your understanding of the following multimedia terms:
- i. Authoring Tools [2 Marks]
 - ii. Alpha testing [2 Marks]
 - iii. Image [2 Marks]
 - iv. Colour Dithering [2 Marks]
 - v. Trimming [2 Marks]
- d. Interpret to your colleague whom you are watching television together what is meant by display resolution and image resolution. [4 Marks]
- e. With relevant and current examples, what are the advantages of using sound in multimedia application? [6 Marks]

QUESTION TWO [20 MARKS]

- a. Elaborate on five (5) basic elements of multimedia. [10 Marks]
- b. Compile various roles that authoring software play in the development of multimedia materials and content. [5 Marks]
- c. i. What is a metaphor? [1 Mark]
- ii. Describe four metaphors that authoring programs are based on. [4 Marks]

QUESTION THREE [20 MARKS]

- a. Differentiate between Linear and non – linear as used in multimedia presentation. [4 Marks]
- b. Compare and contrast bitmap and vector graphics. [8 Marks]
- c. Discuss four commonly used colour schemes in multimedia. [8 Marks]

QUESTION FOUR [20 MARKS]

- a. Describe the steps involved in image processing. [6 Marks]
- b. Elaborate on the following as used in editing digital recording.
- i. Fade in and fade out [2 Marks]
 - ii. Equalization [2 Marks]
 - iii. Time stretching [2 Marks]
 - iv. Reversing sound [2 Marks]
- c. Illustrate three disadvantages of computer based digital video. [6 Marks]

QUESTION FIVE [20 MARKS]

- a. Discuss the different properties of sound that make it an important aspect in the creation of multimedia content. [8 Marks]
- b. 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]
- c. Using diagrams show four navigational structures used in multimedia [8 Marks]