



(Knowledge for Development)

KIBABII UNIVERSITY

(KIBU)

**UNIVERSITY EXAMINATIONS
2019/2020 ACADEMIC YEAR**

**SPECIAL/SUPPLEMENTARY EXAMINATIONS
YEAR THREE SEMESTER TWO**

**FOR THE DEGREE OF
BACHELOR OF SCIENCE
(INFORMATION TECHNOLOGY)**

COURSE CODE : BIT 325

COURSE TITLE : MULTIMEDIA TECHNOLOGIES

DATE: 04/02/2021

TIME: 2.00 P.M. – 4.00 P.M.

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

QUESTION ONE (COMPULSARY) [30 MARKS]

- a. Discuss three characteristics of multimedia products in computing [6 marks]
- b. Explain the role of role of authoring software in multimedia [4 marks]
- c. Briefly compare and contrast bitmap and vector graphics. [6 marks]
- d. Distinguish between these two concepts of Multimedia and Hypermedia [4 marks]
- e. Justify the importance of file or data compression in Multimedia activities. [3 marks]
- f. With examples distinguish between static media and dynamic media. [3 marks]
- g. Briefly explain any **TWO** special effects that may be used in video production. [4marks]

QUESTION TWO [20 MARKS]

- a. Describe streaming as used in multimedia. [4 marks]
- b. Digital Compression Methods can be classified into two broad categories. Briefly describe the **TWO** categories. [6 marks]
- c. Discuss the ethical issues that need to be considered in the development of multimedia application/product. [4 marks]
- d. Discuss **THREE** major challenges that may be experienced in the usage of multimedia in teaching and learning. [6 marks]

QUESTION THREE [20 MARKS]

- a. Define sampling as used in sound production [1 mark]
- b. Calculate the size of a 30 seconds 16-bit, 44.1 kHz stereo music. [3 marks]
- c. Briefly explain **THREE** factors that affect the quality of the sound. [6 marks]
- d. Discuss any **THREE** sound editing operations. [6 marks]
- e. Discuss the integrating of video into a multimedia presentation. (Hint: include advantages and disadvantages) [4 marks]

QUESTION FOUR [20 MARKS]

- a. A multimedia company has been commissioned to develop a promotional video for a famous tourist attraction.
 - i. Outline factors that can affect sound quality when creating the video. [3 marks]
 - ii. Identify and describe a video transfer protocol that may be used to download the video from a website. [3 marks]
 - iii. Describe the ethical issues that will need to be considered by the multimedia company in developing the video. [4 marks]
- b. Compare and contrast graphics and images as used in multimedia. {Hint: you consider format, input, editing, storage (file & capacity) among others attributes} [10 marks]

QUESTION FIVE [20 MARKS]

- a. Briefly discuss the key features a multimedia authoring tool should provide [4 marks]
- b. Suggest they key issues multimedia systems need to deal with. [4 marks]
- c. Briefly discuss any **THREE** desirable features for a multimedia system. [6 marks]
- d. Briefly discuss digital media devices in terms of capturing, processing and presentation devices [6 marks]