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(Knowledge for Development)

KIBABII UNIVERSITY

(KIBU)

**UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR**

**END OF SEMESTER EXAMINATIONS
YEAR THREE SEMESTER TWO
EXAMINATIONS**

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

**COURSE CODE : BIT 325
COURSE TITLE : MULTIMEDIA
TECHNOLOGIES**

DATE: 18/10/2018 TIME: 11.00 A.M. – 1.00 P.M.

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

QUESTION ONE (COMPULSARY) [30 MARKS]

- a. Identify the benefits of using layers when editing multimedia projects? [2 marks]
- b. Examine the major factors to be taken into account when considering what storage requirements are necessary for Multimedia Systems [5 marks]
- c. Distinguish between these two concepts of Multimedia and Hypermedia [4 marks]
- d. Justify the importance of file or data compression in Multimedia activities. [3 marks]
- e. With examples distinguish between static media and dynamic media. [3 marks]
- f. Briefly explain any TWO special effects that may be used in video production. [4marks]
- g. Examine the factors that can affect the legibility of text in an electronic presentation [3 marks]
- h. Describe streaming as used in multimedia. [4 marks]
- i. In medical applications, which method of compression is suitable? Justify your choice [2 marks]

QUESTION TWO [20 MARKS]

- a. Digital Compression Methods can be classified into two broad categories. Briefly describe the two categories. [6 marks]
- b. Analyse the possibility of data compression. (Hint: answer questions like why is it possible to compress data? Are there data that cannot be compressed? Among others) [6 marks]
- c. Discuss four major challenges that may be experienced in the usage of multimedia in teaching at Kibabii University. [8 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 FIVE sound editing operations. [10 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 [5 marks]
- b. Suggest they key issues multimedia systems need to deal with. [5 marks]
- c. Briefly discuss any five desirable features for a multimedia system. [10 marks]