



SCHOOL OF PROFESSIONAL STUDIES

BACHELOR OF INFORMATION COMMUNICATION TECHNOLOGY

UNIT CODE: BCT 316, UNIT NAME: MULTIMEDIA APPLICATION PROGRAMMING

September – December 2018/2019 End Semester Exam - Time: 2 Hours

Instructions: Answer Question ONE (Compulsory) and any other TWO questions.

QUESTION 1 COMPULSORY (30 marks)

- a) Define the following terms **(4 marks)**
- i) Multimedia
 - ii) Human computer interaction
 - iii) Digital convergence
 - iv) Video capture card
- b) Describe four features of multimedia that can be used to differentiate it from other technologies. **(4 marks)**
- c) Discuss five key factors contributing towards the development of multimedia technology in the world. **(5 marks)**
- d) Describe four techniques that can be utilized by users to test the success of multimedia software identifying a merit and demerit for each. **(8 marks)**
- e) (i) Why is file or data compression necessary for Multimedia activities? **(2 marks)**
(ii) Briefly explain, clearly identifying the differences between them, how entropy coding and transform coding techniques work for data compression. **(4 marks)**
- f) Define RAID technology and highlight two advantages that it offers as a medium for the storage and delivery of large data. **(3 marks)**

QUESTION 2

- a) Describe any six characteristics of a successful user interface. (6 marks)
- b) Discuss six ways that multimedia technology can support the education system in Kenya. (6 marks)
- c) Identify three elements of multimedia technology. (3 marks)

QUESTION 3

- a) Highlight five future delivery platforms for multimedia technology and how they will be transforming the use of multimedia. (5 marks)
- b) Differentiate between formative and summative evaluation of multimedia designs. (4 marks)
- c) Discuss the six major challenges faced by the current multimedia technology. (6 marks)

QUESTION 4

“Walker Jeans”, a famous jeans company would like to add an animated advertisement banner on the Web for a jeans show. The Vice President (VP) of the company is concerned about the quality of the graphics and animation design. As the project manager, you are required to:

- a) Differentiate between bitmap and vector-drawn images from the creation of the images, the file size, downloading time and applications (6 marks)
- b) Provide a suggestion of the type and image file format which is suitable for the graphics design and justify your answer (5 marks)
- c) Briefly discuss the following types of the animation techniques that could be used in creating the animation (4 marks)
 - i) Cel animation
 - ii) Tweening
 - iii) Kinematics
 - iv) Morphing

QUESTION 5

- a) Describe any five application areas where multimedia technology can be utilized in the society. (10 marks)
- b) Describe five factors to be taken into account when considering the storage requirements for a multimedia system? (5 marks)