



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE
AND TECHNOLOGY**
SCHOOL OF INNOVATION AND INFORMATICS
SCS 310: MULTIMEDIA AND GRAPHICS

INSTRUCTIONS

Attempt Question ONE and ANY other THREE from Section B

QUESTION #1 [30 MARKS]

- a) Define Multimedia? [2 Marks]
- b) State any FOUR applications of Multimedia? [4 Marks]
- c) State the resolution of Facsimile, Document Images and Photographic Images? [3 Marks]
- d) What are the two technologies used for storage and display of GIS systems? [2 Marks]
- e) Define Compression Efficiency? [2 Marks]
- f) Distinguish between Computer Graphics and Image Animation? [4 Marks]
- g) Explain how Image Annotation is done? [4 Marks]
- h) State any FOUR evolving technologies of Multimedia? [4 Marks]
- i) Using examples distinguish between analog and digital data [5 Marks]

QUESTION #2 [20 MARKS]

- a) What are the objects of Multimedia? [4 Marks]
- b) Explain the difference between Visible and Non-visible Images [6 Marks]
- c) Some Fourth Year Students of JOOUST embarked on study of how they can make JOOUST information systems be more dynamic. They chose to create these systems using multimedia databases. In your own view, discuss some of the benefits of using Multimedia Databases [6 Marks]
- d) What is the need for Compression? [4 Marks]

QUESTION #3 [20 MARKS]

- a) State and explain two types of Compression? [4Marks]
- b) Explain any TWO reasons for the growth of CD-ROM's? [4 Marks]
- c) What is the role of on-line caches? [2 Marks]
- d) What is CD-ROM? Explain four main types CD ROM standard? [6 Marks]
- e) State and explain any FOUR benefits of multimedia systems in society [4 Marks]

QUESTION #4[20 MARKS]

- a) State any FOUR of the classes of multimedia application classes? [4Marks]
- b) What key issues or problems does a multimedia system have to deal with when handling multimedia data? [7Marks]
- c) Explain the fact that Digital signals are composite signals. Sketch the wave form [3 Marks]
- d) During a University-wide competition, some students embarked on animation projects. Indeed some projects emerged winners. In your own view, explain various types of animations that the students might have embraced [4 Marks]
- e) Explain MIDI [2 Marks]

QUESTION #5 [20 MARKS]

- a) Define Computer graphics. [2 Marks]
- b) What is rasterization? [2 Marks]
- c) Name any four input devices. [2 Marks]
- d) State the two techniques for producing colour displays with a CRT?
- e) State the important processes in image processing? [4 Marks]
- f) What is JPEG? [2 Marks]
- g) Mr. Ejakait is a Fourth Year at JOOUST and wishes to start up his own company that will be producing multimedia products. State and explain desirable features that he must consider for his multimedia systems shop [8 Marks]