



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND
TECHNOLOGY
UNIVERSITY EXAMINATIONS**

THIRD YEAR FIRST SEMESTER EXAMINATION FOR BACHELOR IN EDUCATION ARTS AND SCIENCE

SCS 310: MULTIMEDIA AND GRAPHICS

TIME: 2 HOURS

Instructions:

- I. This paper contains Five questions**
- II. Question one is compulsory**
- III. Answer any other two questions**

QUESTION ONE 30marks

- a) Discuss the features of a multimedia authoring tools (10 Marks)
- b) Describe eight hardware or software features that a Multimedia System should possess. (8 Marks)
- c) Define the following terms as used in multimedia system;
- i. Bitmap Graphics (3Marks)
 - ii. Vector Graphics (3 Marks)
 - iii. Authoring tool (3 Marks)
 - iv. Data stream (3 Marks)

QUESTION TWO 20 marks

- a) What key issues or problems does a multimedia system have to deal with when handling multimedia data? (8 Marks)
- b) Distinction between lossless and lossy compression and describe the broad types of multimedia data which are suitable for each category (8 Marks)
- c) Explain the elements of a multimedia system (4 Marks)

QUESTION THREE 20 marks

- a) Highlight the main facilities that must be provided in a system designed to support the integration of multimedia into a multimedia presentation. (8 Marks)
- b) Describe the **FOUR** types of authoring tools (4 Marks)
- c) Discuss the application areas of Hypermedia (8 Marks)

QUESTION FOUR 20 marks

- a) Identify the features of MIDI which make it suitable for multimedia applications. Briefly justify your answer. And state the drawbacks of MIDI? (12 Marks)
- b) Highlight **FOUR** characteristics of a multimedia system (8 Marks)

QUESTION FIVE 20 marks

- a) Differentiate between the target media for JPEG and GIF compression (4 Marks)
- b) State the advantages of arithmetic coding over Huffman coding for data compression (8 Marks)
- c) Describe multimedia development cycle (8 Marks)

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