



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS
DEPARTMENT OF COMPUTER SCIENCE & SOFTWARE ENGINEERING
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
INFORMATION AND COMMUNICATION TECHNOLOGY
2ND YEAR 1ST SEMESTER 2016/2017 ACADEMIC YEAR
MAIN CAMPUS

COURSE CODE: ICT 3215

TITLE: MULTIMEDIA TECHNOLOGY

COURSE EXAM VENUE:

STREAM:

DATE: EXAM SESSION:

TIME: 2HRS

INSTRUCTIONS

- 1. Answer ONE (COMPULSORY) and ANY Two questions**
- 2. Candidates are advised not to write on the question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

Question 1 [30 marks]

- a. What is Multimedia? (2marks)
- b. Describe Multimedia in terms of computing (4marks)
- c. Describe the fundamental multimedia attributes below (8marks)
 - i. Digitized
 - ii. Distributed
 - iii. Interactive
 - iv. Integrated
- d. Explain why multimedia is very important in the current ICT Trends (6marks)
- e. Explain the differences between multimedia and hypermedia? (5marks)
- f. Explain why is a file or data compression highly important for multimedia activities (5marks)

Question 2 [20 marks]

- a. Explain the following terms as used in Multimedia Audio fundamentals (10marks)
 - i. Sound
 - ii. Sound Wave
 - iii. Sound Perception
 - iv. Analog signals
 - v. Digital Signals
- b. Describe Acoustic and its effects on air molecules (5marks)
- c. What is RGB in full? Explain what you understand by RGB color Model (5marks)

Question 3 [20 marks]

- a. Give the meaning of the following acronyms as used in multimedia technology (8marks)
- i. MIDI
 - ii. JPEG
 - iii. GIF
 - iv. TIFF
- b. Describe what light is in multimedia technology (6marks)
- c. What is Monochrome image (2marks)
- d. Compare Monochrome and True-Color images (4marks)

Question 4 [20 marks]

- a. What is RGB in full? Explain what you understand by RGB color model. (5marks)
- b. What is Mobility? (2marks)
- c. Using your rich picture/mind maps diagram express multimedia from desktop, to Internet, to Hand-held and to Wireless Terminal devices (7marks)
- d. Explain the following terms as used in Multimedia mobility (6marks)
- i. Terminal mobility
 - ii. User mobility
 - iii. Service mobility

Question 5 [30 marks]

- a. Differentiate between static media and dynamic media (5marks)
- b. How the message below transmitted when encoded? (5marks)
- c. How many bits are needed to transfer the coded message (10marks)

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