

# 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:LAB 13 STREAM: BSc. ICT

# DATE: 20/04/17 EXAM SESSION: 2.00 – 4.00 PM

# TIME: 2.00 HRS

# INSTRUCTIONS

# Answer ONE (COMPULSORY) and ANY Two questions

# Candidates are advised not to write on the question paper

# Candidates must hand in their answer booklets to the invigilator while in the examination room

**Question 1 [30 marks]**

1. What is Multimedia? (2marks)
2. Describe Multimedia in terms of computing (4marks)
3. Describe the fundamental multimedia attributes below (8marks)
4. Digitized
5. Distributed
6. Interactive
7. Integrated
8. Explain why multimedia is very important in the current ICT Trends (6marks)
9. Explain the differences between multimedia and hypermedia? (5marks)
10. Explain why is a file or data compression highly important for multimedia activities (5marks)

**Question 2 [20 marks]**

1. Explain the following terms as used in Multimedia Audio fundamentals (10marks)
2. Sound
3. Sound Wave
4. Sound Perception
5. Analog signals
6. Digital Signals
7. Describe Acoustic and its effects on air molecules (5marks)
8. What is RGB in full? Explain what you understand by RGB color Model (5marks)

**Question 3 [20 marks]**

1. Give the meaning of the following acronyms as used in multimedia technology (8marks)
2. MIDI
3. JPEG
4. GIF
5. TIFF
6. Describe what light is in multimedia technology (6marks)
7. What is Monochrome image (2marks)
8. Compare Monochrome and True-Color images (4marks)

**Question 4 [20 marks]**

* 1. What is RGB in full? Explain what you understand by RGB color model. (5marks)
  2. What is Mobility? (2marks)
  3. Using your rich picture/mind maps diagram express multimedia from desktop, to Internet, to Hand-held and to Wireless Terminal devices (7marks)
  4. Explain the following terms as used in Multimedia mobility (6marks)

1. Terminal mobility
2. User mobility
3. Service mobility

**Question 5 [30 marks]**

1. Differentiate between static media and dynamic media (5marks)
2. How the message below transmitted when encoded? (5marks)
3. How many bits are needed to transfer the coded message (10marks)