



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2008/2009

INSTITUTE OF OPEN LEARNING (IOL)

EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE
(INFORMATION TECHNOLOGY)

SIT 210: MULTI-MEDIA SYSTEM

DATE: Saturday, 20th February, 2010

TIME: 11.00 a.m. – 1.00 p.m.

INSTRUCTIONS:

Question one is compulsory

Answer any other two questions from questions two, three, four and five

QUESTION-ONE (30 MARKS)

1. Differentiate between hypertext and hypermedia (2 marks)
2. What are the components of multimedia (4 marks)
3. Differentiate between MPEG and JPEG (2 marks)
4. What is digitization? (2 marks)
5. What is multimedia authoring? Discuss multimedia authoring tools (5 marks)
6. What is MIDI? List and briefly explain the components of MIDI? (5 marks)
7. Explain the characteristics of multimedia systems (5 marks)
8. What is compression? Differentiate between lossy and lossless compression (5 marks)

QUESTION-TWO (20 MARKS)

1. Explain any five Multimedia software tools (5 marks)
2. Discuss the data file formats in multimedia (5 marks)
3. List the types of multimedia presentation (2 marks)
4. Explain the terms World Wide Web and MHEG (4 marks)
5. Types of Audio in Multimedia Applications (4 marks)

QUESTION-THREE (20 MARKS)

1. A bitmap image has resolution pixels. Each pixel is 24-bit deep. What is the size of the bitmap in bytes. (4 marks)
2. Discuss the MPEG 4 Structured Audio (8 marks)
3. Discuss the Digital Video Disk (DVD) giving its features and disadvantages (8 marks)

QUESTION-FOUR (20 MARKS)

1. What are the goals of MPEG-7 (4 marks)
2. Discuss the MPEG-7 Description Schemes for Content Management (5 marks)
3. Discuss the Digital Video Coding (DVC) Structure (5 marks)
4. Discuss Temporal Redundancy (3 marks)
5. Discuss Temporal Predictive Coding for Video (3 marks)

QUESTION-FIVE (20 MARKS)

1. Discuss any four lossless compression algorithms (8 marks)
2. List and explain 8 levels of RAID (12 marks)