



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI-ABUJA
FACULTY OF COMPUTING
DEPARTMENT OF COMPUTER SCIENCE
2025_2 EXAMINATIONS

COURSE CODE: CIT742

COURSE TITLE: MULTIMEDIA TECHNOLOGY

COURSE CREDIT: 3 UNITS

TIME ALLOWED: 3 HOURS

INSTRUCTION: ANSWER QUESTION 1 AND ANY OTHER THREE (3) QUESTIONS

Question 1:

- a. Define the term *Graphics*. (2 marks)
- ii. Write briefly the concept *Light and Spectra*. (2 marks)
- iii. It has been established that images may have *noise* depending on the sources of the images and the medium of their transfer. List TWO *standard noise form*. (3 marks)
- iv. List and explain 2 Desirable Features for a Multimedia System (2 marks)
- b. Define *Chromatics*. (2 mark)
- ii. Give a brief overview of *image analysis*. (3 marks)
- iii. With the aid of a well-labelled graph, illustrate the spectral-response functions
Cones and Luminous-efficiency Function of the Human eye. (3 marks)
- iv. Explain Postscript/Encapsulated Postscript (2 marks)
- v. List and give example each of three (3) components of multimedia system (6 marks)

Question 2:

- a. Discuss five (5) desirable features of multimedia systems (10 marks)
- b. Outline and explain TWO properties of Two-Dimensional Fourier Transform. (3 marks)
- c. Discuss two key components of the RAID System. (2 marks)

Question 3:

- a. Write short notes on the Human Retina. (2 marks)
- b. Briefly discuss the terms Multimedia and Multimedia Application (6 marks)
- c. Distinguish between Hypertext and Hypermedia? (3 marks)
- d. Give a brief explanation of FOUR LOSSY methods applied to audio compression. (4 marks)

Question 4:

- a. Discuss the concept of an authoring system (4 marks)
- b. Discuss the correlation between iconic/flow control and frame authoring paradigm. (5 marks)
- c. Define the following terms
 - i. analog signal
 - ii. Digital signal
 - iii. Synchronisation (6 marks)

Question 5:

- a. Identify the four key issues that affect storage media (4 marks)
- b. List and explain any four (4) image file format (4 marks)
- c. What is Quantization? (3 marks)
- d. What are **the** four factors that influence I/O performance? (4 marks)

Question 6:

- a. You were invited to create a poster for a forthcoming activity in your company. How do you convince them on the need to use certain color in the design? (5 marks)
- b. List 2 significant advantages Raid technology offers as a storage medium (2 marks)
- c. Identify 3 advantages of Graphics Interchange Format (GIF) (3 marks)
- d. Identify and explain briefly 2 ways in which multimedia compression can be classified. (5 marks)