



National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Asikiwe Expressway, Jabi – Abuja
Faculty of Sciences
2020_2 EXAMINATION

COURSE CODE: CIT742

COURSE TITLE: MULTIMEDIA TECHNOLOGY

CREDIT: 3 Units

TIME ALLOWED: 3 Hours

INSTRUCTION: Question ONE and any four (4) others

Question One

- 1a. i. The multimedia is faced with many challenges. State three of such challenges [3 marks]
- 1a. ii. Define Images [2 marks]
- 1a. iii. What is a CD [2 marks]
- 1b. i. Comprehensively, explain the term ‘Sound’ [2 marks]
- 1b. ii. Explain the difference between DVD-Video and DVD-ROM [2 marks]
- 1c.i. Give two characteristics each of the following types of images; [8 marks]
- a. Monochrome / Bitmap Image
 - b. Grey scale Image
 - c. 8 – bit Colour Image
 - d. 24 – bit Colour Image
- 1c. ii. Describe the concept of “visible light” [3 marks]

Question Two

- 2a. i. Describe without using graphical illustrations Cones and Perception [3 marks]
- 2a. ii. What is a pixel? [1 mark]
- 2a. iii. Describe briefly 24-bit Colour Images [2 marks]
- 2b. i. Discuss the JPEG [3 marks]
- 2b. ii. List THREE System Dependent Formats. [3 marks]

Question Three

- 3a. i. Using a diagram only, illustrate the Human visual System. [4 marks]
- 3a. ii. Explain GIF in details. [2 marks]
- 3b. i. Enumerate FOUR System Independent Formats. [4 marks]

3b. ii. Define Monitor Resolution [2 marks]

Question Four

4a. i. Enumerate TWENTY examples of Multimedia Applications [5 marks]

4a. ii. How can Interactive Multimedia be achieved? [2 marks]

4b. i. State TWO examples of *streamed audio (and video)* [2 marks]

4b. ii. Describe Mathematical and Wavelet Transformation. [3 marks]

Question Five

5a. i. Enumerate the FOUR characteristics of a Multimedia System. [2 marks]

5a. ii. Describe briefly the history of multimedia. [3 marks]

5b. i. How can Hypermedia be *experienced*? [1 mark]

5b. ii. Define *Video*. [2 marks]

5b. iii. Explain Two-dimensional Discrete Fourier Transform (DFT). [4 marks]

Question Six

6a. i. Define the term Multimedia. [4 marks]

6a. ii. Describe in details the techniques for reducing or eliminating Noise in Image Processing. [3 marks]

6b. i. Explain, in clear terms, Hypertext. [1 mark]

6b. ii. Which is the *best example* of hypermedia application? [1 mark]

6b. iii. Describe the *process of* Image Analysis and give ONE common application of the Histogram [3 marks]