



**NATIONAL OPEN UNIVERSITY OF NIGERIA,
PLOT 91, CADASTRAL ZONE, UNIVERSITY VILLAGE, JABI – ABUJA
FACULTY OF SCIENCES
2022_2 EXAMINATION**

COURSE CODE: CIT735

COURSE CREDIT: 3

COURSE TITLE: APPLICATION SOFTWARE DESIGN AND MULTIMEDIA

TIME ALLOWED: 2¹/₂ HOURS

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

QUESTIONS

- 1a (i) Write down any four (4) benefits of the Multimedia system? **(4 marks)**
(ii) State any two multimedia development tools that may be used to create stand-alone hypermedia applications **(3 marks)**
- 1b (i) What are the challenges of Multimedia system design? **(3 marks)**
(ii) Briefly describe the two components of CODEC **(3 marks)**
(iii) Explain the concept of persistence of vision in video and animation **(2 marks)**
- 1c (i) What is the basic goal of Human-Computer Interaction **(3 marks)**
(ii) Differentiate between Contiguity Principle and Multimedia Principle **(4 marks)**
- 1d. Explain the concept of Rhetorical situation in the context of the user-centred design **(3 marks)**
[25 marks]

- 2a State the essential features of multimedia computer components. **(2 marks)**
2b What are the four basic characteristics of multimedia system? **(4 marks)**
2c Each DVD-ROM disc is divided into six sections, briefly describe these sections **(6 marks)**
- 2d. Explain the notion of body-storming (3 marks)

[15 marks]

- 3a Outline some examples of media players in multimedia application **(6 marks)**
3b Briefly explain the components of a multimedia editing software **(6 marks)**
3c. Determine the dimension of the video, for a scan video system transmitting at 44 frames/s, if a sample is taken at 520 x 310 resolutions at 32 bits per pixel. **(3 marks)**

[15 marks]

- 4a Highlight the software tools that enable you to capture streaming media and convert it from one form into another **(6 marks)**
4b Write short notes on the following text attributes
(i) Font Type (ii) Font Style (iii) Font Size **(6 marks)**
4c. Distinguish between podcast and vodcast (3 marks)

[15 marks]

- 5a The YUV color code is widely used in encoding colour for use in television and video. Explain the concept of YUV Colour Model **(6 marks)**
- 5b State the colour palette of the RAINBOW colours in RGB and hexadecimal code. **(6 marks)**
- 5c. E-Learning has been found to be beneficial for facilitating learning in schools and has the potential to support **higher content retention**. Give a reason to justify this. **(3 marks)**

[15 marks]

- 6a With the aid of a relevant diagram only, explain the Architecture of Video Capture Card in multimedia applications **(6 marks)**
- 6b The Motion Picture Expert Group (MPEG) is a working group within the International Standard Organization (ISO) targeted at entertainment video. Explain three versions of MPEG standard **(6 marks)**
- 6c. Describe the focus group within the context of the user-centred design. **(3 marks)**

[15 marks]