

NATIONAL OPEN UNIVERSITY OF NIGERIA,
PLOT 91, CADASTRAL ZONE, UNIVERSITY VILLAGE, JABI – ABUJA
FACULTY OF SCIENCES
DEPARTMENT OF COMPUTER SCIENCE
2023_1 POP EXAMINATION

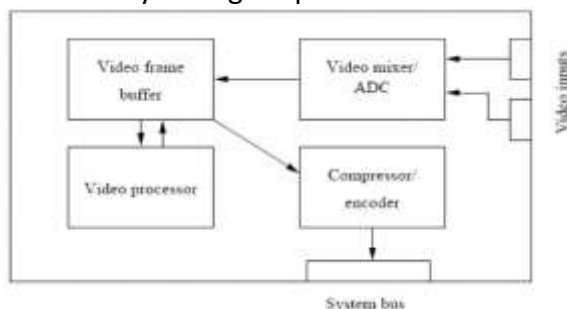
COURSE CODE: CIT735
COURSE CREDIT: 3
COURSE TITLE: APPLICATION SOFTWARE DESIGN AND MULTIMEDIA
TIME ALLOWED: 3 HOURS
INSTRUCTION: ANSWER QUESTION ONE (1) AND ANY OTHER THREE (3) QUESTIONS

QUESTIONS

- 1a. Within the context of Application Software Design and Multimedia, the loop of interaction comprises of a number of aspects. Classify and briefly explain any five (5) of these aspects. (10 marks)
- 1b. Explain the process of transferring video recording from a camcorder to a desktop computer. (3 marks)
- 1c. What criteria would you adopt to ensure that your multimedia presentation is legible? (2 marks)
- 1d. State any four (4) tips you would adhere to while maintaining the legibility of the multimedia presentation. (4 marks)
- 1e. Ordinarily, a user requires a collection of 3 vital packages for creating and editing images in multimedia applications. Write down these (3) packages. (3 marks)
- 1f. Describe the **Direct Changeover Delivery Strategies** within the Application Software Design and Multimedia context. (3 marks)

[Total = 25 marks]

2. Study the figure provided and answer the questions that follow:



- 2a. i. Give a suitable title for the figure provided. (1 mark)
- ii. State the key role of the Compressor. (1 mark)
- iii. Write down the purpose of the Video Frame Buffer. (1 mark)

- iv. State the key role Video Input. (1 mark)
- v. What is the function of the Video Processor? (2 marks)
- vi. State the key role Video Input Mixer. (2 marks)
- 2b. Explain the concept of 'Digitization of Video'. (3 marks)
- 2c. In the event that a scam video system transmits at 25 frames/s, and if a sample is taken at 360 x 240 resolutions at 16 bits per pixel, determine the raw video size. (2 marks)
- 2d. Identify the main difference between Metamedia and Hypermedia (2 marks)
- [Total = 15 marks]
- 3a. State in precise terms how the rollover effect in DHTML is accomplished? (7 marks)
- 3b. Write down the full meaning of the acronym **DHTML** (1 mark)
- 3c. Essentially, online collaboration is based on 4 key principles. State these principles. (4 marks)
- 3d. Distinguish between **linear** and **non-linear** categories of Multimedia (3 marks)
- 4a. The Graphical User Interface (GUI) is generally designed for the precise requirements of a vertical market. Write down any five (5) classic forms of GUIs. (5 marks)
- 4b. State the two (2) critical points that must be considered in the course of designing a user interface. (4 marks)
- 4c. Give a brief description of the concept of 'Zooming User Interface'. (3 marks)
- 4d. List any 3 deliverables that must be taken into consideration in developing a pilot project or prototype before starting a full-scale development. (3 marks)
- [Total = 15 marks]
- 5a. Within the context of User-centred design, write short notes on the following:
- i. **Audience** (2 marks)
 - ii. **Body storming:** (2 marks)
 - iii. **Context** (2 marks)
 - iv. **Focus group** (2 marks)
 - v. **Rhetorical situation** (2 marks)
- 5b. Determine the dimension of a video, If a scam video system transmits at 44 frames/s, and a sample is taken at 520 x 310 resolutions at 32 bits per pixel.
- 5c. Elucidate on the CD-ROM as a common acronym in Application Software Design and Multimedia

6a. E-Learning has been found to be beneficial for facilitating learning in schools and has an excellent setting for effective corporate training. List and explain five good reasons to support this statement.

(10 marks)

6b. What is the rationale for Multimedia Learning?

(2 marks)

6c. Distinguish between the terms **podcast** and **vodcast**

(3 marks)

[Total = 15 marks]