



MOSHOD ABIOLA POLYTECHNIC, ABEOKUTA
DEPARTMENT OF COMPUTER SCIENCE
FIRST SEMESTER EXAMINATION 2023/2024 SESSION

COURSE TITLE: MULTIMEDIA TECHNOLOGY
CLASS: COMP. SCI. HND II (FT & PT)

COURSE CODE: COM 415
TIME ALLOTTED: 3HRS

INSTRUCTION: 1. Attempt ANY FOUR QUESTIONS from SECTION A and ANY ONE QUESTION in SECTION B
2. Write only your matric number on the question paper, nothing else.

SECTION A

- 1a. What differentiate traditional multiple media from digital multimedia is the notion of Interactivity. Relate the interactivity of a multimedia system to both mass media and digital multimedia.
- b. Expatriate on any five (5) stages of multimedia production
- c. Itemize five (5) output formats of representing computer information.
- d. To your best knowledge on visualization and creative visualization, discuss briefly (with crucial point) five stages of creative visualization

(20mks)

- 2a. Text in multimedia can be designed using fonts (like font type, font size, and font style). Mention five guidelines to follow in choosing any font in a multimedia presentation
- b. Provide the one(1) role each to the following multimedia production crew: (i) Multimedia Designer (ii) Scriptwriter (iii) Webmaster (iv) Instructional Designer (v) Computer Graphic Artist
- c. Provide the appropriate measurement unit for the followings: (i) Volume of sound (ii) Frequency (iii) Bandwidth (iv) Period (v) Size of text
- d. Discuss briefly on any five classification of media

(20mks)

- 3a. Define the following properties of sound: (i) Wavelength (ii) Doppler Effect (iii) Amplitude (iv) Pitch (v) Timbre
- b. Analyze audio editing in respect to: (i) Recording (ii) Modification (iii) Unwanted sound (iv) Adding effects (v) Mistakes
- c. Give five (5) reasons for compression
- d. Explain the difference between the two types of compression using the following parameters: (i) Data alteration (ii) Data loss (iii) Data accuracy (iv) Algorithms

(20mks)

- 4a. Highlight five reasons behind the effects of compression as an important aspect of communication
- b. Define the following terms in respect to digital audio: (i) Sampling rate (ii) Fidelity
- c. Discuss briefly on any five special effects built into audio editors
- d. Place the following sound effects under Content and Ambient Sound: (i) Music (ii) Voice-overs (iii) Sound effect (iv) Testimonials (v) Background music

(20mks)

- 5a. Classify the following image file formats under lossy and lossless compression: (i) JFIF (ii) TIFF (iii) BMP (iv) RAW (v) PPM
- b. Differentiate between: (i) Kinematics and Morphing (ii) Still image and Moving image
- c. What do you understand by (i) CODEC and (ii) DCT?
- d. What is the relationship between real-time and multimedia system with respect to the following parameters: (i) Response time (ii) Schedulability (iii) Security (iv) Fault tolerance (v) Speed (20mks)

SECTION B (ALTERNATIVE TO PRACTICAL)

- 6a. Describe the key features of multimedia and provide an example of how each feature can be utilized in an educational application.
- b. Describe the importance of multimedia compression and name two tools used for compressing multimedia files. What are the benefits of using these tools?
- c. Explain the different multimedia file formats for video, web, and point presentations.
- d. Explain the steps involved in the site design and page layout process.
- e. Describe the basic concept of multimedia and list three different multimedia tools with their respective functions. (20mks)
- 7a. What are some effective strategies for optimizing multimedia content for online distribution and faster loading times? (i) Response time (ii) Schedulability (iii) Security (iv) Fault tolerance (v) Speed
- b. Multimedia often involves large file sizes. Explain the purpose of multimedia compression and name three common compression formats, specifying the type of media each one is used for.
- c. What are the best practices for creating engaging and visually appealing multimedia presentations?
- d. Outline the steps involved in developing a website and briefly describe each step.
- e. Describe the basic concept of multimedia and list three application areas where multimedia tools are used. (20mks)