



NATIONAL OPEN UNIVERSITY OF NIGERIA
University Village, 91 Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja
FACULTY OF SCIENCES
COMPUTER SCIENCE DEPARTMENT
2020_2 EXAMINATION

CIT 463 – Introduction to Multimedia Technology **Credit: 3 units**

TIME ALLOWED: 2½ Hours

INSTRUCTION: Answer Question 1 and any other FOUR (4) Questions

QUESTION 1

- a) Define Multimedia *(2 marks)*
- b) Given the definition of multimedia system and determine if the following is a multimedia system. *(4 marks)*
 - i). Computer Hard disk
 - ii). ATM machine
- c) In 6 sentences or less discuss your understanding of digital audio. Mention the digital audio chain process and give 2 examples of digital audio storage device. *(3 marks)*
- d) What is multimedia compression *(2 marks)*
- e) Explain the concept of the integrated services architecture model *(3 marks)*
- f) What are the advantages and disadvantages of the Internet Telephony? *(4 marks)*
- g) Briefly explain the Session Control Protocol (SCP) and Real-time Transfer Protocol (RTP) *(4 marks)*

QUESTION 2

- a) Explain how Asynchronous transfer Mode (ATM) Works *(3 marks)*
- b) Discuss the types of circuits in an ATM network *(2 marks)*
- c) Outline level of services provides by Asynchronous transfer Mode (ATM) *(4 marks)*
- d) Identify 3 types of network traffic ATM attempt to meet its requirement *(3 marks)*

QUESTION 3

- a) Give a concise explanation of Router *(5 marks)*
- b) What makes dynamic router better than static router? *(2 marks)*
- c) Differentiate between routing and bridging *(3 marks)*
- d) Summarizes how to successfully route a packet through the internetwork *(2 marks)*

QUESTION 4

- a) Define the term Video Conferencing (2 marks)
- b) Identify the major components for a videoconferencing system and its corresponding hardware /software (2 marks)
- c) List and explain two types of videoconferencing systems (5 marks)
- d) State and describe the major types of dedicated videoconferencing devices (3 marks)

QUESTION 5

- a) State two advantages and disadvantages of WAN over LAN network (2 marks)
- b) With the aid of a diagram discuss the mesh topology (3 marks)
- c) Mention the major types of multimedia compression (1 mark)
- d) Compare the two types of multimedia compression mentioned in d) (2 marks)
- e) State and explain the two forms of Computer Telephony Integration (4 marks)

QUESTION 6

- a) Discuss the term transform coding? (2 marks)
- b) Why is color management considered to be both subjective and technical? (2 marks)
- c) State four application of multimedia (2marks)
- d) Discuss with relevant examples the benefits and challenges of color. (2 marks)
- e) What is psychoacoustic model and why is the model feasible in digital audio signal (2 marks)
- f) List four examples of system software. (2 marks)