NATIONAL OPEN UNIVERSITY OF NIGERIA
University Village, 91 Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja
FACULTY OF SCIENCES
COMPUTER SCIENCE DEPARTMENT
2021 EXAMINATIONS

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, hence determine if the following are multimedia system *(4 marks)*
  (i)   *Computer hard disk*
  (ii)   *ATM Machine*
c) In six sentences or less discuss your understanding of digital audio *(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 mark*)

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) Discus 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 description of router as used in multimedia technology (*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 (b) above (*2 marks*)

e) State and explain the two forms of Computer Telephony Integration (*4 mark*)

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 example 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)