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) Describe the term "Multimedia" in a Computer Environment" *(3 marks)*
b) With the aid of diagram discuss Star Topology *(4 marks)*
c) Summarize the features of Digital Audio *(3 marks)*
d) What makes color management Subjective and Technical? *(2 marks)*
e) Discuss the advantages of the Digital Television over the Analogue Television *(3 marks)*
f) Highlight the types of dedicated Video conferencing Devices *(3 marks)*
g) Outline two types of circuit in Asynchronous transfer Mode (ATM) network *(2 marks)*
h) State at least four examples of Application Software *(2 marks)*

QUESTION 2
a) Briefly describe Quality of Service (QoS) *(3 marks)*
b) Distinguish between Digital Audio and Analogue Audio *(2 marks)*
c) Highlight at least two (2) types of Authoring tools and summarize their usage *(3 marks)*
d) Discuss the functions of Computer Telephony Integration *(3 marks)*
e) Outline the compression types commonly used in video compression *(1 marks)*

QUESTION 3
a) Discuss the processes to convert Analogue Audio to Digital Audio *(2 marks)*
b) Summarize the benefits and challenges of using Color *(4 marks)*
c) State the difference between Differentiated Services and Integrated Services *(2 marks)*
d) Describe at least three (3) ways to create digital image *(3 marks)*
e) Mention two unique ways to specify color *(1 marks)*

QUESTION 4
a) Identify the limitation of psychoacoustics model. *(2 marks)*
b) Differentiate between Wider Area Network (WAN) and Local Area Network (LAN) *(2 marks)*
c) Explain the term "Pixel" as used in multimedia technology.

(3 marks)
d) Outline the features of Image and digital image *(4 marks)*
e) Explain the term "Chromatic" *(1 marks)*

QUESTION 5
a) Briefly explain the term "Peer-To-Peer Architecture" *(3 marks)*
b) Highlight the characteristics of Metropolitan Area Network (MAN) *(2 marks)*
c) Differentiate between Real-time Transfer Protocol and Session Control Protocol *(2 marks)*
d) Describe Digital Subscriber Line *(3 marks)*
e) What are the advantages and disadvantages of the Internet Telephony? *(2 marks)*