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**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**University Village, 91 Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja**

**FACULTY OF SCIENCE**

**DEPARTMENT OF COMPUTER SCIENCE**

**CIT463: Introduction to Multimedia Technology Credit Units: 2**

**Instruction**: *Answer Question (1) (25marks) and any other three questions each carrying 15 marks* **Time:** *2 hours*

1a) What is multimedia technology? ***(2marks)***

b) State six essential features desirable to multimedia system ***(12 marks)***

c) Give four areas in which multimedia system is applicable ***(1 mark)***

d) Compare the Client-Server architecture and Peer-to-Peer architecture ***(10 marks)***

2a) Describe the key elements of protocol ***(6 marks)***

b) Enumerate the differences between an *analogue videotape* and a *digital video format* (**6 marks**)

c) Identify the differences between an *analogue audio* and a *digital audio* (**3marks**)

3a) Explain the concept of *video conferencing* (**3 marks**)

b) What are the components required for a *videoconferencing* system (**5 marks**)

c) List the types of dedicated *videoconferencing* devices (**3 marks**)

d) Briefly explain the process of creation of digital audio ***(4 marks)***

4). Write short notes on the following topologies giving advantage(s) of each. Draw diagram where necessary.

a) Ring ***(5 marks)***

b) Tree ***(5 marks)***

c) Mesh ***(5 marks)***

5a) Describe the characteristics of the following types of computer network:

i) Metropolitan Area Network (MAN) ***(3 marks)***

ii) Wide Area Network (WAN) ***(3 marks)***

iii) Local Area Network (LAN) ***(3 marks)***

b) What is a multimedia software? (**2 marks**)

c) List FOUR (4) functions of multimedia software ***(4 marks)***

6a) Describe the three major forms of multimedia hardware ***(14 marks)***

b) How is *videoconferencing* different from *videophone call* (**1 mark**)