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**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**University Village, 91 Cadastral Zone, NnamdiAzikwe Expressway, Jabi, Abuja**

**FACULTY OF SCIENCES**

**NOVEMBER, 2018 EXAMINATIONS**

**COURSE CODE: CIT463**

**COURSE TITLE: Introduction to Multimedia Technology**

**CREDIT: 2 Units**

**TIME ALLOWED: 2Hours**

**INSTRUCTION: Answer Question ONE (1) and any other THREE (3) Questions**

1a) Outlineany five functions of software ***(5 marks)***

b)Enumerate four common ways digital image can be created ***(4 marks)***

c) State the function and any four components of:  i. System Software ii. programming software

d) What is a server?***(1 mark)***

e) State any two ways the term server is commonly used in computing. ***(2 marks)***

f) ATM is an attempt to meet the requirements of three different types of network traffic. Name them and give an example of each. ***(3 marks)***

g) State the compression types commonly used in video compression *(****2 marks)***

h) List the TWO (2) primary transport protocols used for Internet telephony ***(2 marks)***

2a) Write short notes on Microsoft DirectX ***(3 marks)***

b) List and state the uses of any six components of Microsoft DirectX ***(10½ marks)***

c) Enumerate the major classes of software ***(1½ marks)***

3a) List and write short notes on the broad categories of multimedia compression ***(10 marks)***

b) State five application areas of multicast *(****5 marks****)*

4a) Give a concise definition of Quality of Service (QoS) ***[1½ marks]***

b) Compare between Integrated Service and Differentiated Service. ***(4 marks)***

c) State the situation(s) in Multimedia Technology in which Quality of Service (QoS) is important ***[1½ marks]***

d) State the advantages of a Differentiated Services. ***(3 marks)***

e)What is multicasting? ***[2 marks]***

f) Enumerate the different aspects/characteristics of multicast communication. ***(3 marks)***

5a) What is the purpose of MBONE? ***(2marks)***

b) State the reasons for difficulty in commercialisation of multicast routers. ***(2 marks)***

c) State the specific characteristics of Mbone based on the following:

 i) Topology ***(1 mark)***

 ii) IP addresses ***(1 mark)***

 iii) Routing schemes ***(1 mark)***

 iv)Session registration ***(1 mark)***

d) What is *Internet telephony*? ***(2 marks)***

e) Briefly describe the basic operation of *Internet telephony* system *(****5 marks****)*