

NATIONAL OPEN UNVERSITY OF NIGERIA

University Village, Plot 91, Cadastral Zone,

Nnamdi Azikiwe Expressway, Jabi, Abuja

FACULTY OF SCIENCES

APRIL 2019 EXAMINATION

***Course Code:*** CIT311 ***Time Allowed:*** 3 Hours

***Course Title:*** Computer Networks

***Course Credit Unit*:** 3

***Instruction:*** Answer Question 1 and any other four questions

**Question 1**

1. Mention any five properties that are desirable in a routing algorithm? (5 marks)
2. Give any five examples of domain names **(5 marks)**
3. Mention three kinds of interfaces that ATM interfaces supports? (3 marks)
4. Describe the basic operations of an ATM switch? (6 marks)
5. State the goals of the services of the network layer of the OSI model? (3 marks)

**Question 2**

1. In appropriate order, mention the seven layers of ISO OSI Reference Model (7 marks)
2. What is the difference between data rate and bandwidth? (5 marks)

**Question 3**

1. List six characteristics of an Electronic Mail (6 marks)
2. List and explain the three services provided by data link layer (6 marks)

**Question 4**

1. Computer networks have been classified into three, list and describe briefly these three main classifications (9 marks)
2. The BRI line provides two types of ISDN communications channels. Name them

(3 marks)

**Question 5**

1. Define the term routing algorithm (2 marks)
2. Describe any four fundamental differences between non–adaptive and adaptive routing algorithm? (4 marks)
3. Describe any six functions of a MODEM (6 marks)

**Question 6**

1. List four main tasks of the session layer (4 marks)
2. State five features of OSI Reference Model that distinguish it from TCP Reference Model

(5 marks)

1. Enumerate 3 different IEEE Standards for LAN configuration (3 marks)