

**NATIONAL OPEN UNVERSITY OF NIGERIA**

**University Village, Plot 91, Cadastral Zone,**

**Nnamdi Azikiwe Expressway, Jabi, Abuja**

**FACULTY OF SCIENCES**

**JULY, 2018 EXAMINATIONS**

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

***Course Title:*** Computer Networks

***Course Credit Unit*:** 3

***Instruction:*** Answer Question 1 (22 marks) and any other four questions (12 marks each)

1(a) List and describe briefly the three main classification of computer networks (9 marks)

1(b) Define the following types of network topologies (6 marks)

(i) Star (ii) Ring (iii) Bus

1(c) List seven characteristics of an Electronic Mail (7 marks)

2(a) List out the TCP/IP Network Architecture in a tabular form (4 Marks)

2(b) Explain briefly the OSI Reference model and the TCP/IP reference model (4 marks)

2(c) Describe the Tree type of computer network topology (4 marks)

3(a) Explain the following types of Network (4 Marks)

1. Point–to–Point networks (ii) Broadcast networks

3(b) State four benefits of asynchronous transfer mode (4 marks)

3(c) State four features of OSI Reference Model that distinguish it from TCP Reference Model (4 marks)

4(a) List the three IEEE Standards for LAN (3 marks)

4(b) Explain the main goal of computer networks (2 marks)

4(c) List the seven layers of ISO OSI Reference Model (7 marks)

5(a) State four features of TCP Reference Model that distinguish it from OSI Reference Model (4 marks)

5(b) Explain the following terms (4 marks)

1. Asynchronous transfer mode
2. Multiplexing

5(c) What is the difference between data rate and bandwidth? (4 marks)

6(a) Explain the following terms (4 marks)

(i) Repeaters (ii) Domain Name System

6(b) Define Electronic Mail (4 marks)

6(c )List and explain two different types of Switching Techniques (4 marks)