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**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS**

**SEPTEMBER/OCTOBER 2015 EXAMINATION**

**SCHOOL OF SCIENCE AND TECHNOLOGY**

**COURSE CODE: CIT 311**

**COURSE TITLE: COMPUT ER NETWORKS**

**INST RUCTION: *Answer anyfive questions out of Seven***

**Time: 3HOURS**

1 .

a) B riefly describe the follo wing network types:

i. **Local Area Network**

**ii. MetropolitanArea Network**

**iii. Wide Area Network**

b) D istinguish between **point‐to‐point** and **broadca t** networks.

2 .

a) U sing sketch es describe three different types of n etwork**topologies**.

b) B riefly describe the OSI Reference m odel listing all its layers i n their prop er order.

3 .

a) Write a brief note on each of the foll owing: i. Tran smission Control Protoc l (TCP) ii. User Datagram Protocol (UD P)

b) B riefly explain what trans mission medium is, listing three examples.

4 .

a) E xplain clearly what is m eant by multiplexing, de cribing two techniques used to i mplement it.

1. B riefly explain what Media Access Control is describing two t ypes of protocols used fo r i t.

5 .

a) D istinguish between **adaptive** and **non‐adaptive** routing algorithms. b) Write brief notes on each of the following routin algorithms:

i. Shor test Path routing ii. Flooing

6 .

a) B riefly explain the functi on of a Dom ain Name System (DNS) in a TCP/IP N etwork. b) Write a brief note on each of the foll owing:

i. Switc h ii. Bridg e iii. Hub iv. Router

7 .

a) B riefly explain what an A TM Network is listing fo r of its benefits.

1. Write a brief note on each of the following types of communication using examples to illustrate:
   1. Baseband
   2. broadband