



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS**  
**MARCH/APRIL 2016 EXAMINATION**

**SCHOOL OF SCIENCE AND TECHNOLOGY**

**COURSE CODE:** CIT311  
**COURSE TITLE:** COMPUTER NETWORKS

**Time:** 3 HOURS

**INSTRUCTION:** *Answer any five questions out of Seven*

1.
  - a) Distinguish between point-to-point and broadcast networks.
  - b) Write short notes on the following types of network:
    - i. Wide Area Network WAN
    - ii. Metropolitan Area Network MAN
    - iii. Local Area Network LAN
2.
  - a) Using sketches describe three types of network topologies.
  - b) Briefly describe the layers of the OSI Reference model in their proper order.
3.
  - a) Distinguish between Transmission Control Protocol (TCP) and User Datagram Protocol (UDP)
  - b) Briefly explain what transmission medium is giving three examples.
4.
  - a) Explain clearly what is meant by multiplexing, describing two techniques used to implement it.
  - b) Briefly describe Media Access Control stating two types of protocols used for it.
5.
  - a) Distinguish between adaptive and non-adaptive routing algorithms.
  - b) Write brief notes on each of the following routing algorithms:
    - i. Shortest Path routing
    - ii. Flooding
6.
  - a) Briefly explain the function of a Domain Name System (DNS) in a TCP/IP Network.

b) Write a brief note on each of the following:

- i. Switch
- ii. Bridge
- iii. Hub
- iv. Router

7.

- a) Briefly explain what an ATM Network is listing four of its benefits.
- b) Distinguish between baseband and broadband communication using examples to illustrate.