



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

**SCHOOL OF SCIENCE AND TECHNOLOGY**

**COURSE CODE:** CIT305  
**COURSE TITLE:** NETWORKING AND COMMUNICATION  
TECHNOLOGY

**Time:** 3 HOURS  
**INSTRUCTION:** *Answer any five questions out of Seven*

1.
  - a. Briefly describe what a Virtual Private Network is.
  - b. Write down four reasons for creating computers networks.
2.
  - a. Briefly explain the difference between Ethernet and Gigabit Ethernet.
  - b. Write short notes on the following types of physical media:
    - i. Unshielded Twisted Pair(UTP) cable
    - ii. Fibre-optic cable
    - iii. Coaxial cable
3.
  - a. Describe the Network layer of the OSI Reference model.
  - b. Write a brief note on the IEEE802.11b Wi-Fi standard.
4.
  - a. Briefly describe the addressing and other functions of the Internet Protocol (IP) in the IPv4 Internet suit.
  - b. Briefly explaining why TCP is considered a reliable protocol.
5.
  - a. Explain briefly four threats that may face an enterprise network that is connected to the Internet.
  - b. Distinguish between a MAN and a WAN.
6.
  - a. Give a brief description of the following:
    - i. Multiplexer
    - ii. Modem

- b. Briefly explain the following aspects of Network planning and design:
    - i. Business requirements
    - ii. Proof of concept.
- 7.
  - a. Describe four types of noise, indicating which type is particularly harmful to digital data.
  - b. Give a brief description of the ISDN technique highlighting its main advantage over other communication techniques.