NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI-ABUJA
FACULTY OF COMPUTING
DEPARTMENT OF COMPUTER SCIENCE
2025_1 EXAMINATION

Course Code: CIT722
Course Title: Computer Networks
Time: 3 Hours
Credit: 3 Units
Instruction: Attempt 4 questions. Question1 is Compulsory and any other three (3)

1a. Explain the development and significance of Alexander Graham Bell's invention in the context of networking history. (5marks)
1b. Analyze the impact of the Federal Communications Commission's (FCC) ruling in 1975 on the telecommunications industry. (5marks)
1c. List and explain five key issues that need to be addressed before establishing a computer network. (15marks)

2a. Describe the impact of the birth of the personal computer on the networking marketplace. (5marks)
2b. Explain the concept of networking and its importance in resource sharing. (10marks)

3a. Define Network Operating System (NOS) and list three examples. (5marks)
3b. Describe the function of a router and how it differs from a bridge in a network. (10marks)

4a. Describe the purpose and functionality of the User Datagram Protocol (UDP). (5marks)
4b. Differentiate between Peer-to-Peer and Client-Server Network Operating Systems. (10marks)

5a. What is the function of a network interface card (NIC) and what are the common types of NIC connections? (7marks)
5b. What are the key advantages and disadvantages of a Client/Server network? (8marks)

6a. What are the main functions of the Transmission Control Protocol/Internet Protocol (TCP/IP)? (7marks)
6b. Define a computer network and explain its basic establishment layer as per the OSI model. (8marks)