



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI-ABUJA
FACULTY OF COMPUTING
DEPARTMENT OF COMPUTER SCIENCE
2025_2 EXAMINATIONS

COURSE CODE: CIT423

COURSE TITLE: COMPUTER NETWORKS AND COMMUNICATION

COURSE CREDIT: 2 UNITS

TIME ALLOWED: 2 HOURS

INSTRUCTION: ANSWER QUESTION (1) AND ANY OTHER TWO (2) QUESTIONS

QUESTIONS

- 1a. List seven (7) benefits of ATM network **(7Marks)**
- b. Describe how the following ATM switch interfaces operate **(5Marks)**
- c. Explain the functions of a Virtual Path Identifier in ATM network **(5Marks)**
- d. What are the functions of Cell Loss Priority in ATM cell header format **(6 Marks)**
- e. List four (4) advantages of the small, fixed-sized cells of ATM network **(4Marks)**
- f. List the three (3) kinds of interfaces ATM switches support **(3marks)**

- 2a. Differentiate between LANs and WANs **(5marks)**
- b. Define network resource management **(5marks)**
- c. List the network traffic control mechanisms **(5marks)**
- d. What do you understand by stop and wait? **(5marks)**

- 3a. Briefly explain what a modem is all about. **(5marks)**
- b. What are the key components of a computer network? **(5marks)**
- c. When a network is said to experience congestion **(5Marks)**
- d. Outline the classes of service defined for ATM network **(5Marks)**

- 4ai. List the classification of transmission media **(2marks)**
- 4ai. What is a computer network? **(3marks)**
- b. What is TCP/IP? **(5marks)**
- c. How do the OSI and TCP/IP models differ? **(5marks)**
- d. What is the OSI model? **(5marks)**

- 5a. When is a system administration? **(3Marks)**
- b. Explain the mode of transmission used when a mobile phone call is made between a student in class and the desk officer in the office **(5marks)**
- c. What is network and system administration? **(5marks)**
- d. What are the challenges of system administration? **(7marks)**