NATIONAL OPEN UNIVERSITY OF NIGERIA
University Village, 91 Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja
FACULTY OF SCIENCES
2022_2 EXAMINATION

COURSE CODE: CIT 423
COURSE TITLE: Computer Networks and Communication
CREDIT: 3 Units
TIME ALLOWED: 2½ Hours
INSTRUCTION: Answer Question ONE (1) and any other FOUR (4) Questions

QUESTION 1
    a) Describe two types of Multiplexing. (4 marks)
    b) In a tabular form, list four differences between Hubs and switches. (4 marks)
    c) Explain the differences between Point-to-point and Broadcast network. (4 marks)
    d) State five metrics (conditions) of Exterior Gateway Routing Protocol (EGRP) to determine the best route in a network. (5 marks)
    e) With a well labelled diagram, describe Open System Interconnection (OSI) reference model. (9 marks)
    f) Itemize four (4) differences between OSI and TCP/IP reference model. (4 marks)

QUESTION 2
    a) What is Domain Name System? (3 marks)
    b) Explain six (6) parameters associated with Transmission Control Protocol (TCP) header. (12 marks)
    c) What is the full meaning of the following domain name?
        i. **Com**
        ii. **Edu**
        iii. **Gov**
        iv. **Mil**
        v. **Org**. (5 marks)

QUESTION 3
    a) Itemize four functions of a MODEM. (4 marks)

b) Itemize the activities involved in network administration. (6 marks)

c) Itemize and explain two classifications of Transmission media. (4 marks)

d) Explain classifications of computer networks based on geographical coverage. (6 marks)

QUESTION 4

a) Define Computer Network. (2 marks)

b) What is the goal of setting-up a computer network? Hence, itemize some applications of computer network. (6 marks)

c) With an appropriate diagram, explain the possible classifications of compute network topologies. (12 marks)

QUESTION 5

a) Define Multiplexing. (3 marks)

b) Itemize the advantages small, fixed-sized cells. (3 marks)

c) Write short note on the following:
   i. Electronic mail.
   ii. World wide web (WWW)
   iii. File Transfer Protocol (FTP).
   iv. Asynchronous Transfer Mode. (8 marks)

d) List typical tasks performed by protocols. (6 marks)