NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND, LAGOS
SCHOOL OF MANAGEMENT SCIENCES
JANUARY/FEBRUARY 2013 EXAMINATION

COURSE CODE: MBF 844   **CREDIT UNITS:** 2
COURSE TITLE: COMPUTER NETWORK AND INTERNET
TIME ALLOWED: 2Hrs
Instructions: 1. Attempt question number one (1) and any other two (2).

2. Question number 1 is compulsory and carries 30 marks   while the other 2 questions carry 20 marks each.

3. Present all your points in coherent and orderly manner

Question 1:
a. Define the following:
i. Computer network, ii. Local Area Network, iii. Metropolitan Area Network, iv. Wide Area Network, v. Personal Area Network, vi. Voice Network, vii. Data Network, viii. Data Communications, ix. Telecommunication, x. Network Management.   10marks
b. List and explain the OSI reference model   10marks
c. What is the primary difference between the data link layer and the transport?   5marks
d. Consider a 3000-Hz signal with a power level of 0.2 and a noise level of 0.0002 watts. Calculate the data rate.   5marks

Question 2:
2a(i).   What is the difference between Data and Signals?   4marks
ii.   List the three basic components of all signals   3marks
iii.   Define the spectrum of a signal   2marks
iv.   Define the following terms:
Computer Network
Data Communication
             4marks
2b(i).   For what purposes are category 1 -7 twisted pair used for?   3marks
ii.   What is the difference between Terrestrial microwave and Satellite microwave?   4marks

Question 3:
a. State the main characteristics, and disadvantages of circuit-switched network.   5marks
3b(i).   Describe an electronic mail   5marks
ii. List the two parts of an electronic mail   4marks
3c.   explain the difference between Centralized and Distributed routing   6marks

Question 4:
a. Illustrate how to locate a document on the internet.   10marks

b. **Describe the concept of flooding as it relates to routing in computer network.** 5marks
c. **State the reasons for interconnecting.** 5marks

Question 5:
a. **State the major advantage and disadvantage of flooding** 6marks
b. **Briefly explain Broadcast Network** 10marks
c. **Explain the concept of cut-through architecture and mention the disadvantage(s) of using this architecture to interconnect devices in network environment.** 4marks

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