



NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
SCHOOL OF MANAGEMENT SCIENCES
MAY/JUNE 2012 EXAMINATION

MBF 744/844 Computer Networks and Internet
Times Allowed: 2:00 Hours

Instruction: a) Attempt any Three (3) questions of your choice. Each question carries 23.3 marks.

b) Present your answers legibly and logically using relevant examples

Questions:

1. The primary function of Transmission Control Protocol (TCP) is to turn an unreliable network into a reliable network that is free from lost and duplication of packets. Discuss 23.3 marks
2. (a) Explain precisely the causes and possible solutions to network congestion in telecommunication and networking. 9 marks
(b) Evaluate critically basic difference between Centralized Routing and Distributed Routing. 14.3 marks
3. (a) Explain the term 'Local Area Network 8.3 marks
(b) Discuss three (3) applications areas of a local area network. 15 marks
4. (a) Despite error prevention mechanism, errors still occur in data transfer over a communication line. Discuss three (3) basic error detection techniques. 12 marks
(b) Explain three (3) factors considered in designing data transmission systems. 11.3 marks
5. Explain the following in details:
 - a) The World Wide Web. 8 marks
 - b) Electronic Mail (e-mail) 8 marks
 - c) Listserv. 7.3 marks



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SCHOOL OF MANAGEMENT SCIENCES
JUNE/JULY, 2013 EXAMINATIONS

COURSE CODE: MBF844 **COURSE UNITS:** 2
COURSE TITLE: COMPUTER NETWORKS AND INTERNET
TIME ALLOWED: 2HRS.
Instructions: 1. Attempt question Number one (1) and any other two
2. Question number 1 is compulsory and carries 30 marks, while the other questions carry equal marks each.
3. Present all your points in coherent and orderly manner

Question 1:

- a. Define the following:
 - i. Computer network, ii. Hardware, iii. Software, iv. Wide Area Network, v. Personal Area Network, vi. Servers, vii. Operating System, 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 Token Management and Synchronization? 4marks
- ii. Enumerate the three basic components of all signals 3marks
- iii. Expatriate the spectrum of a signal 2marks
- iv. Define the following terms:
 - Computer Network 4marks
 - Data Communication 4marks
- 2b(i). For what purposes is category 1 -7 twisted pair used for? 3marks
- ii. What is the difference between Terrestrial microwave and Satellite microwave? 4marks

3a: State the main characteristics, and disadvantages of circuit-switched network.

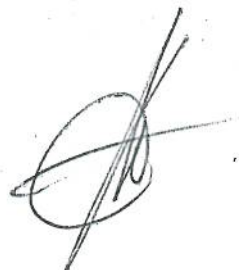
- 3b(i). Describe an electronic mail 5marks
- ii. List the two parts of an electronic mail 5marks
- iii. What is the difference between analog and digital data 2marks
- 3c. explain the difference between Centralized and Distributed routing 2marks

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 merit and demerit 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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OCTOBER 2013 EXAMINATION

COURSE CODE: MBF 844

COURSE UNITS: 2

COURSE TITLE: COMPUTER NETWORK AND INTERNET

TIME ALLOWED: 2 HRS

- 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 questions carry equal marks each
3. Present all your points in coherent and orderly manner

Question 1:

- a. Define the following:
i. Computer network, ii. Workstations, iii. Servers, iv. Network hub, v. Switches, vi. Routers, vii. Nodes, 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 NETWORK ARCHITECTURE? 4marks
- (ii) Enumerate the three basic components of all signals 3marks
- ii. Expatriate the spectrum of a signal 2marks
- iii. Define the following terms:
Computer Network
Data Communication 4marks
- 2b(i). For what purposes is 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 2marks
- iii. what is the difference between analog and digital data 2marks
- 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 merit and demerit of flooding 6marks
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