



NATIONAL OPEN UNIVERSITY OF NIGERIA
University Village, Plot 91, Cadastral Zone,
Nnamdi Azikiwe Expressway, Jabi, Abuja

FACULTY OF SCIENCES

Created during the 2022_2 Semester

Course Code:	CIT832
Course Title:	Introduction To Operating Systems and Networking Management
Credit Unit:	2
Time Allowed:	2 hours
Instruction:	Answer Question 1 and any other two (2) questions

(30 marks)

- Q1
- a. Why is it necessary to study operating systems? (4 marks)
 - b. The seven layers of the OSI reference model can be divided into two categories: upper and lower layers. Differentiate between these two categories. (8 marks)
 - c. Four major components make up the development environment for most GUIs. Identify and briefly explain them. (12 marks)
 - d. A system administrator's work can be divided into various specialties in a large organization, with each specialty being handled by a different person or group. Discuss three of these specialties. (6 marks)

(20 marks)

- Q2
- a. Describe the Gestalt Principle (4 marks)
 - b. Explain the concept of multiprogramming and briefly explain two categories of multiprogramming systems. (8 marks)
 - c. List three ways of grouping displayed information to ensure high readability and highlighted relationships between the information. (6 marks)
 - d. Explain two common failure modes in distributed systems (2 marks)

(20 marks)

- Q3
- a. Describe the term **virtual machine** and discuss three of its benefits (8 marks)
 - b. List two benefits provided by Windows 2000 domains (4 marks)
 - c. Explain the following Windows Domain concepts (8 marks)
 - (i) Objects
 - (ii) Organizational Unit
 - (iii) Trees
 - (iv) Forest

(20 marks)

- Q4
- a. Briefly describe multiprocessor operating systems. (4 marks)
 - b. Discuss two advantages and disadvantages of mesh topology. (5 marks)
 - c. List and explain the three goals of computer security: (6 marks)
 - d. Distinguish between Local Area Networks (LANs) and Wide Area Networks (WANs) (5 marks)

Q5 (20 marks)

- a. Explain the following by stating their features and functions: (10 marks)
 - i. File Transfer Protocol (FTP)
 - ii. Network Filing System (NFS)
 - iii. Remote Terminal Emulation (TELNET)
 - iv. User Datagram Protocol (UDP)
 - v. Internet Control Message Protocol (ICMP)
- b. Mention four drawback of LINUX Operating Systems (4 marks)
- c. What do the following Linux file manipulation commands do? (6 marks)
 - i. TAIL
 - ii. CMP
 - iii. DIFF