



NATIONAL OPEN UNIVERSITY OF NIGERIA
14/16 AHMADU BELLO WAY, VICTORIA ISLAND, LAGOS
SCHOOL OF SCIENCE AND TECHNOLOGY
JUNE/JULY EXAMINATION

COURSE CODE: CIT723

COURSE TITLE: OPERATING SYSTEM DESIGN AND PROGRAMMING

TIME ALLOWED: 2½ HOURS

INSTRUCTION: ANSWER ANY FOUR QUESTIONS IN ALL

- 1
 - a. List any 3 operating system views.(7.5 marks)
 - b. Using examples, explain the WIMP paradigm of interaction.
(10 marks)
2.
 - a. With the aid of appropriate examples, explain post-WIMP interfaces.
(10 marks)
 - b. Define the term, Network Architecture.
(7.5 marks)
3.
 - a. Outline the 2 major functionalities provided by the Internet Protocol (IP).
(7.5 marks)
 - b. List 5 pieces of information about system processes that the Linux Kernel must keep track of. (10 marks)
4.
 - a. Briefly explain fault tolerant systems making reference to data redundancy.
(7.5 marks)
 - b. List 5 data redundancy alternatives offered by fault tolerant systems (10 marks)
5.
 - a. List and describe any 4 backup methods.
(10 marks)
 - b. Specify the Linux commands to perform the following operations:
 - i. finds all lines in **hello.txt** that contain the string "dog" (2.5marks)

- ii. forcefully terminate a process with PID 1515 (1.5 mark)
- iii. sort the lines of **hello.txt** alphabetically and redirect the output to a file called **hello2.txt**(2 marks)
- iv. remove duplicate adjacent lines from the sorted file **hello2.txt** (1 mark)and redirect the output to **hello3.txt** (1.5 marks)

6.

- a. State and write short note on the 4 basic functions of an operating system
(10 marks)
- b. Enumerate any 7 human acts and naturalcauses of a network disaster.
(7.5 marks)