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

COURSE CODE: CIT711
COURSE TITLE: Computer Fundamentals (3 units)
TIME ALLOWED: 2½ hrs
INSTRUCTION: Answer any other FIVE questions. Each question carry 14 marks

1a. . List (in the correct sequence) the OSI reference model layers (9 marks)
1b. State the functions of any five of the layers of the OSI model. (5 marks)

2a. State four possible ways to increase the computer memory speed. (6 marks)
2b. Enumerate the four time-honoured principles of ensuring security and recovery in case of breaches of security?
(8 marks)

3a. Enumerate the three basic steps in Cryptanalysis.
(6 marks)
3b. Diagrammatically illustrate the key features of the Von Neumann machine. (8 marks)

4a. Write short note on I/O module interface? (4 marks)
4b. State three reasons why an I/O module is needed
(6 marks)
4c. Briefly describe the Network Operating System (NOS). (4 marks)

5a. What is multiplexing?
(3marks)
5b. Enumerate the two ways of using multiplexing.
(6 marks)
5c.. What is the purpose of a looping statement in a programming language? (2 marks)
5d. What are the two components of the Application Software?
(3 marks)

6a. Mention any two reasons for increased complexity that led to Complex Instruction Set Computers (CISC)
(2 marks)

6b. Flynn's classification divides the computers into four categories as follow:

(i) Single Instruction Single Data (SISD)
(ii) Single Instruction Multiple Data (SIMD)
(iii) Multiple Instruction Single Data (MISD)
(iv) Multiple Instruction Multiple Data (MIMD)

You are required to explain what you understand by each of i, ii, iii, and iv above. (8 marks)

6c.) State and explain two advantages of having densely packed Integrated Circuits in the computer

7a. What is Routing?
(2 marks)

7b. Briefly describe each of the following routing devices:

i. Bridges)
ii. Routers)
iii. Gateways)
(6 marks each)