

## NATIONAL OPEN UNIVERSITY OF NIGERIA 14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS SCHOOL OF SCIENCE AND TECHNOLOGY MAY/JUNE 2012 EXAMINATION

CIT611 Computer Fundamentals (3 CR)

Time Allowed: 2½ hrs

*Instruction:* Answer any FIVE questions

- The computer memory system can be considered to consist of three groups of memories. List and briefly describe these three groups (10 marks)
- b) Enumerate the two ways of using multiplexing. (2 marks)
- c) State the two major qualities of vector computers (2 marks)
- 2a) In the context of data communication/transmission, what do you understand by 'Switching'? (1 mark)
- b) List and describe the three switching technique commonly employed in data communication. (13 marks)
- 3a) Define Cryptography (2½ marks)
- b) What do you understand by Cryptanalysis? (2½ marks)
- c) Enumerate the basic steps involved in the art of Cryptanalysis and state what each step requires. (9 *marks*)
- 4a) In the context of computer programming, define the following: (10 marks)
- i) Variable
- ii) Functions
- iii) Data type

iv)

Array

- v) Subroutine
- b) What are the main advantages of multiprogramming? (4 marks)
- 5a) What do you understand by 'WAN'? (3 marks)
- b) Briefly describe the two types of WAN (6½ mark)
- c) Write short note on Software security?  $(4\frac{1}{2} \text{ marks})$
- 6a) Compare and contrast RAM and ROM. (8 marks)
- b) What is the importance of read mostly memories? (2 marks)

- c) State the essential difference(s) between Spooling and Buffering. (4 marks)
- 7a)
- b)
- What is a system call? (3 marks)
  Write short notes on Physical Security (6 marks)
  List the important aspects to be considered while designing a network c) (4 marks)