

NATIONAL OPEN UNIVERSITY OF NIGERIA,

**University Village, Plot 91, Cadastral Zone, Nnamdi Azikiwe Express Way, Jabi, Abuja**

**FACULTY OF SCIENCES**

JULY 2017 EXAMINATION

Course code: CIT461

Course Title: Internet Architecture and Communications

Time: 2 Hours

Instruction: Answer any Four (4) questions.

1a. Write short note on any security measures for E-Business Systems. [4.5 marks]

1b. Explain Internet Protocol. [5 marks]

1c. Explain classes C and D of IP Addresses. [8 marks]

2a. Explain Internet Control Message Protocol (ICMP). [4 marks]

2b. State and discuss two primary responsibilities of IP [6 marks]

2c. State five (5) useful messages generated by Internet Control Message Protocol (ICMP). [7.5 marks]

3a. State the two types of simple internet connection. [2.5 marks]

3b. Write short note on the two fields of IP Addresses [6 marks]

3c. Write short note on the following: [9 marks]

1. Bridges
2. Brouters
3. Gateway

4a. Explain class E of IP Address. [4 marks]

4b. Write short note on IP address. [4.5 marks]

4c. List and explain the two popular approaches to packet switching. [9 marks]

5a. State two advantages of Message switching and one disadvantage of Cell switching of Packet Switched Systems [4.5 marks]

5b. List and explain the two types of Ethernet Hubs. [6 marks]

5c. Describe classes A and B of IP Addresses. [7 marks]

6a. State three main equipment required for internet access. [2.5 marks]

6b. Explain Multicasting. [6 marks]

6c. Write short note on the four levels of ISPs. [9 marks]