UNIVERSITY OF GHANA

BA/BSc. INFORMATION TECHNOLOGY,
FIRST SEMESTER UNIVERSITY EXAMINATIONS
2016/2017 ACADEMIC YEAR

CSIT 311: INFORMATION SECURITY PRINCIPLES

TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS:
There are Six (6) Questions in ALL. Answer ALL Questions in Your Answer Booklets.
Answer Question One (1) And Any Three (3) Questions. Each Question Carries Equal Marks.

Q1. .

    a. The University of Ghana as academic institution deals with a lot of information circulation. What is the Security Policy governing how Information is to be treated in this institution? **[15 marks]**

    b. State and explain the Information Security Principles that governs how information in Ghana is treated. **[10 marks]**

Q2.

    a. Define the following terms: **[6 marks]**

        i. Policy?

        ii. Standards?

        iii. Practices?

    b. Briefly discuss any four (4) types of Security Policies. **[8 marks]**

    c. State five (5) guidelines for effective policy? **[5 marks]**

    d. State and explain four (4) factors of Risk Assessment? **[6 marks]**

Q3.

    a. What is Trusted Computing Base (TCB)?   **[5 marks]**

    b. Briefly describe the features of a defensive technology infrastructure?

        [5 marks]

    c. What is the full meaning of AUP?   **[1 mark]**

        i. Mention four (4) tools that enforce AUP by detecting violations?

        [7 marks]

    d. Define Liability Exposure?   **[2 marks]**

    e. State five (5) assets that are at risk in liability exposure?   **[5 marks]**

Q4.

    a. What is a computer crime?   **[2 marks]**

    b. Explain three ways of preventing spams?   **[6 marks]**

    c. Define the following   **[4 marks]**

        i. Cyber terrorism?

        ii. Privacy threat?

    d. State and explain four (4) common ways in which individuals give away information about themselves that they should be protecting?   **[5 marks]**

    e. Describe four (4) technologies that are used to gather information secretly on the web.?   **[8 marks]**

Q5.

    a. Define Security Architecture?   **[2 marks]**

    b. Illustrate with a diagram the Enterprise Security Architecture?   **[7 marks]**

    c. List the six (6) implementation processes of an Information Security management system?   **[6 marks]**

    d. What are Secure-use Practices?   **[3 marks]**

    e. State the seven (7) Secure Use Practices?   **[7 marks]**

Q6.

    a. What is information security?   **[2 marks]**

    b. Discuss four (4) reasons why it is important to study Information security?

         [8 marks]

    c. Discuss any four (4) principles of information security?   **[4 marks]**

    d. Briefly explain the following Security goals;   **[3 marks]**

         i. Confidentiality?

         ii. Integrity?

         iii. Availability?

    e. Discuss four (4) factors that drive the need for diverse technology layer?

         [8 marks]