



(Knowledge for Development)

KIBABII UNIVERSITY COLLEGE

**A CONSTITUENT COLLEGE OF
MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY**

UNIVERSITY EXAMINATIONS

2014/2015 ACADEMIC YEAR

FOURTH YEAR SECOND SEMESTER

MAIN EXAMINATION

FOR THE DEGREE OF

BACHELOR OF SCIENCE COMPUTER SCIENCE

COURSE CODE: CSC 474 E

COURSE TITLE: SECURITY IN NETWORKS

DATE: 28th APRIL, 2015

TIME: 8.00AM-10.00AM

INSTRUCTIONS TO CANDIDATES

Answer Question One in Section A and Any other TWO (2) Questions in Section B

TIME: 2 Hours

Answer all Questions in Section A and any other three in Section B

SECTION A (30 MARKS)

Question 1 (30 MARKS)

- a. Differentiate between the two methods of website defacement. [4 MKS]
- b. A DoS attack may include execution of malware. What could the intention be? [6 MKS]
- c. A packet sniffer located at one of the servers of your ISP would potentially be able to monitor all of your on-line activities. Which information would of particular interest for this packet sniffers? [6 MKS]
- d. Explain the concept of IP-Based prevention. [6 MKS]
- e. There are two main categories of mobile code security risks. Explain each exhaustively. [8 MKS]

SECTION B (40 MARKS)

Answer any Two Questions

Question 2 (20 MARKS)

- a. Differentiate between the two ways in which packet sniffers can be set up. [4 MKS]
- b. How do you know if an attack is happening? [4 MKS]
- c. Public Key Infrastructure offers each user a set of services, related to identification and access control, Explain what it does. [6 MKS]
- d. Using a diagram, explain the mobile code security model. [6 MKS]

Question 3 (20 MARKS)

- a. Kerberos is not a perfect answer to security problems in distributed systems. Explain [12 MKS]
- b. The theoretical principles of effective surveillance have got basic axioms. Explain these axioms exhaustively. [8 mks]

Question 4 (20 MARKS)

- a. Give the specific actions of a certificate authority. [6 MKS]
- b. Explain Code modification or code injection threat scenario. [6 MKS]
- c. There are four main methods used to perpetrate a session hijack. Explain them. [8 MKS]

Question 5 (20 MARKS)

- a. Before employing a PKI you need to considerate flexibility, What questions should you ask yourself here? [5 MKS]
- b. Explain the error correction code method used in security of networks. [5 MKS]
- c. How are VPNs secured? [5 MKS]
- d. What is a packet sniffer? A packet sniffer can usually be set up in one of two ways. Explain them. [5 MKS]