



TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION

TECHNOLOGY

UNIVERSITY EXAMINATION FOR:

DICT JAN 2015

EIT 2208: FUNDAMENTALS OF COMPUTER SECURITY

END OF SEMESTER EXAMINATION

SERIES: APRIL 2016

TIME: 2 HOURS

DATE: Pick Date Select Month Pick Year

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt any **THREE** questions.

Do not write on the question paper.

Q1(a) Explain the term computer security.

(2 marks)

(b) Explain the following terms as used in information security.

- i. confidentiality
- ii. integrity
- iii. availability
- iv. authentication
- v. Access Control
- vi. Accountability

vii Nonrepudiation (14 marks)

c) Explain the two Types of computer security (4 marks)

Q2 (a) Explain the *Importance of Computer and Network Security*.

(9 marks)

(b) i. Define the term Threat as used in Computer Security (2 marks)

ii.Explain any four computer security threats. (8 marks)

Q3 (a) Explain the following malicious code that can cause damage to computer or network.

- i) Trojan horses,
 - ii) logic bombs,
 - iii) spyware,
 - iv) Adware,
 - v) Rootkit
- (20 marks)

Q4 (a) i. Explain the term cryptography (2 marks)

ii.Explain the three types of cryptography techniques. (12 marks)

(b) Explain the Authentication Considerations in Security Web Environment.

- i.Passwords
- ii.Certificates and Certificate Authorities
- iii.Secure Sockets Layer (SSL) Authentication and X.509v3 Digital Certificates
- iv.Single Sign-on

(8 marks)

Q5 (a) Explain the types of attack in electronic commerce security.

(14 marks)

(b) Explain any three of defenses available against attacks in Q5 (a) above.

(6 marks)