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: APRIL2016

TIME: 2HOURS

DATE: Pick DateSelect MonthPick 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. Attemptany 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)