



TECHNICAL UNIVERISTRY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY
(DICT 12S)

EIT 2208: FUNDAMENTALS OF COMPUTER SECURITY

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2014

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions. Attempt question **ONE (Compulsory)** and any other **TWO** questions
Maximum marks for each part of a question are as shown
This paper consists of **TWO** printed pages

Question One (Compulsory)

- a) Explain the following security concept:
(i) Computer security
(ii) Internet security
(iii) Vulnerability
(iv) Threaty
(v) Proxy server **(10 marks)**
- b) Explain **THREE** main reasons why computer and network security is important. **(6 marks)**
- c) Explain any **TWO** goals of Information Security. **(4 marks)**

Question Two

- a) Explain the following information security characteristics:
(i) Availability
(ii) Confidentiality
(iii) Integrity
(iv) Authenticating
(v) Non-repudiation **(10 marks)**
- b) Attacks can be classified as Internal or External. Explain the difference between internal and external attacks and state **TWO** examples of each case. **(6 marks)**
- c) Explain how incompetent employees in an organization can be a threat to organization's information. **(4 marks)**

Question Three

- a) Explain **FIVE** threats to information stating possible solution to the threats. **(10 marks)**
- b) State and explain different approaches to disaster planning. **(6 marks)**
- c) Explain the danger of not performing risk analysis in an organization. **(4 marks)**

Question Four

- a) Distinguish between computer security and Information security. **(6 marks)**
- b) Discuss different attacks that may cause threats to information systems **(6 marks)**
- c) Discuss different recovery measures that may be taken of data loss. **(8 marks)**

Question Five

- a) Discuss why there is an increase in number of security threats to information systems. **(8 marks)**
- b) Explain the following types of risks attacks:
(i) Boot sector virus
(ii) File infecting virus

- (iii) Macro infecting virus
 - (iv) Trojan Horse virus
 - (v) Spy worms virus
- c) What is a security plan? Discuss.

(10 marks)
(2 marks)