



TECHNICAL UNIVERISTY OF MOMBASA

# Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY  
(DICM 12M)

**EIT 2208: COMPUTER SECURITY (FUNDAMENTALS)**

END OF SEMESTER EXAMINATION

**SERIES: DECEMBER 2013**

**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** and any other **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **THREE** printed pages

### Question One (Compulsory)

- a) Define the term encryption (2 marks)
- b) Explain the following types of computer attacks:  
(i) Brute force attack  
(ii) Distributed Denial of Service (DDOS)  
(iii) Hacking  
(iv) Spamming  
(v) Cracking (10 marks)
- c) How does physical and logical security affect computer security? (3 marks)
- d) With suitable examples, demonstrate how the following measures can be used to enhance security:  
(i) Anti virus software  
(ii) Regular software updating  
(iii) Access control  
(iv) Changing passwords regularly  
(v) Scanning your computer (10 marks)
- e) State any TWO disadvantages of installing computer networks. (2 marks)

### Question Two

- a) Discuss the following models of network computing:  
(i) Centralized computing  
(ii) Distributed computing  
(iii) Collaborative computing (9 marks)
- b) Give THREE situations where wireless networks are especially preferred. (6 marks)
- c) Outline FIVE best practices to ensure cable termination is successful. (5 marks)

### Question Three

- a) Explain any FOUR characteristics of transmission media. (12 marks)
- b) Kigeugeu wants to start up a cyber café' Assuming you have been consulted as the expert, advise on four hardware devices that he may have to acquire. (8 marks)

### Question Four

- a) Explain any THREE types of networks giving their major characteristics. (12 marks)
- b) Outline the procedure for enabling sharing of files on a network on a computer running Windows seven. (8 marks)

### Question Five

With the aid of diagrams, briefly describe each of the five physical topologies in which networks are based. (20 marks)