



TECHNICAL UNIVERISTRY OF MOMBASA

Faculty of Engineering & Technology

UKUNDA CAMPUS

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY
(DICT 14J Y2 S1)

EIT 2203: WIRELESS TECHNOLOGIES

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) How do the following affect wireless networks:
(i) Mobility
(ii) Security
(iii) Compatibility
(iv) Band Width **(8 marks)**
- b) Explain how the following affect the Network range in Wireless technologies.
(i) Antennae types
(ii) Access Point Connecting
(iii) Line of Sight **(6 marks)**
- c) What are **THREE** advantages and **THREE** disadvantages of using wireless Networks. **(6 marks)**

Question Two

Using a well detailed diagram, list the layers of OSI model, listing the functions of each layer, the protocols that function at the layer and the type of network equipment used. **(20 marks)**

Question Three

- a) Define the following terms as used in wireless technologies:
(i) Wireless Spectrum
(ii) Frequencies
(iii) Amplitude
(iv) Line of sight
(v) Access Point **(10 marks)**
- b) Explain **FIVE** measures that can be implemented to ensure secure wireless communication in a network. **(10 marks)**

Question Four

- a) What factors will promote the effective deployment and implementation of a wireless network over a wired network. **(10 marks)**
- b) Differentiate between the following types of access point:
(i) Hardware Access Point
(ii) Software Access Point **(5 marks)**
- c) Explain how one can configure a wired network system to a shared wireless network. **(5 marks)**

Question Five

You have been contracted by XYZ inc to survey recommend and implement a wireless network system for the company. Based on the following points, explain how you will perform the following;

- (i) Site survey
- (ii) Access Point Moulding
- (iii) Security

- (iv) Configuration of Equipment
- (v) Geographic Scoping
- (vi) Reliability
- (vii) Bandwidth

(20 marks)