



TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY
DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY
(DICT 13M)

EIT 2206: WIRELESS TECHNOLOGIES

END OF SEMESTER EXAMINATION

SERIES: APRIL 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** 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) Discuss SIX factors to consider when deploying a wireless network. **(12 marks)**
- b) List and explain any FOUR limitations for using wireless networks. **(8 marks)**

Question Two

- a) Distinguish the difference between analog and digital signals. **(4 marks)**
- b) Define the following terminologies as used in wireless networking. **(10 marks)**
- (i) Propagation
 - (ii) Resonance
 - (iii) Modulation
 - (iv) Demodulation
 - (v) Receiver
- c) List and explain any THREE differences between wireless networks and wired network. **(6 marks)**

Question Three

- a) Assuming you are the ICT Network Manager in an organization. Highlight and explain FIVE key points you will use in your proposal to convince the CEO of the company to run a parallel network of wired and wireless network in the organization. **(10 marks)**
- b) Discuss FIVE strategies you can use to improve the performance of a wireless network in an organization. **(10 marks)**

Question Four

- a) Define the following terminologies as used in wireless technologies. **(10 marks)**
- (i) Receiver sensitivity
 - (ii) Wireless technology
 - (iii) Pigtail
 - (iv) Data transmission mode
 - (v) Spread spectrum
- b) Discuss any FIVE factors which have led to the rise of mobile cellular networks in the world today. Give examples. **(10 marks)**

Question Five

- a) With aid of diagrams, describe the THREE types of data transmission modes. **(9 marks)**
- b) Define the term 'radio' as used in wireless networks. **(2 marks)**
- c) List FIVE uses of using wireless networks. **(5 marks)**
- d) Distinguish between amplitude modulation and frequency modulation. **(4 marks)**