



TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR:

DICT – Y2S1

EIT 2203: WIRELESS TECHNOLOGY

SPECIAL/ SUPPLEMENTARY EXAMINATION

SERIES: SEPTEMBER 2018

TIME: 2HOURS

DATE: Sep 2018

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

Question ONE

- Discuss what Wireless Communication is? [5 marks]
- Wireless technologies have been adopted in several systems in the world, name and explain at least FIVE systems. [10 marks]
- What are the advantages and disadvantages of Wireless communication? [10 marks]
- Discuss about Wimax. [5 marks]

Question TWO

- How do you determine which network Topology to use? [3 marks]
- Give TWO advantages of Mesh Topology? [2 marks]
- Describe the following types of Network
 - Metropolitan Area Network (MAN) [2 marks]
 - Wide Area Network (WAN) [2 marks]
 - Wireless Local Area Network (WLAN) [2 marks]
 - Distinguish between a REPEATER and a SWITCH? [4 marks]

Question THREE

- a) List THREE characteristics of wired communication verses THREE of the wireless communication. [6 marks]
- b) List and explain FOUR limitations of wireless communication. [9 marks]

Question FOUR

- a) IEEE 802 is a family of IEEE standards dealing with local area networks and wide area networks; Discuss the following families:
- i. 802.11i [3 marks]
 - ii. 802.11e [4 marks]
 - iii. 802.15 [4 marks]
 - iv. 802.16 [4 marks]

Question FIVE

- a) Explain Handoff in cellular networks? [3 marks]
- b) What is Handshaking in communication? [2 marks]
- c) What is a Mobile Station? [2 marks]
- d) What is a Mobile Switching Center? [2 marks]
- e) What is a Transceiver? [2 marks]
- f) What is a Simplex System? [2 marks]
- g) What is a Half-Duplex System? [2 marks]
- h) What is a Full-Duplex System? [2 marks]