



**THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE**

**(A Constituent College of JKUAT)**

(A Centre of Excellence)

# **Faculty of Engineering & Technology**

**DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY**

**DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY  
(DICT 10M-EV)**

**EIT 2308: WIRELESS NETWORKS**

**END OF SEMESTER EXAMINATION**

**SERIES: DECEMBER 2012**

**TIME: 2 HOURS**

**Instructions to Candidates:**

You should have the following for this examination

- *Answer Booklet*

This paper consist of **FIVE** questions

Answer 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) Name any **THREE** wireless devices. **(3 marks)**
- b) Outline **FOUR** services offered within any wireless network. **(4 marks)**
- c) What are the frequency ranges for the following network communication. **(2 marks)**
  - (i) Mobile network
  - (ii) Wifi
  - (iii) Infra red **(6 marks)**
- d) Highlight **SEVEN** drawbacks of a wireless network.

**Question Two**

- a) Explain the following as used in wireless:
  - (i) Bandwidth
  - (ii) Access control **(6 marks)**
- b) List **FOUR** wifi IEEE 802.11 technologies. **(4 marks)**
- c) Explain any **TWO** wifi 802.11 security methods. **(6 marks)**
- d) Outline the advantages of infrastructure A.P mode an Access Point mode. **(4 marks)**

**Question Three**

- a) Explain any **TWO** parts of a mobile network architecture. **(8 marks)**
- b) Describe how a person on call can move around towns without his/her call being terminated. **(8 marks)**
- c) Explain call dropping. **(4 marks)**

**Question Four**

- a) Explain the difference between 3G and 2G of GSM network. **(6 marks)**
- b) Briefly explain how an international call is routed to its destination. **(10 marks)**
- c) List **FOUR** advantages of cellular network. **(4 marks)**

**Question Five**

- a) Name the **TWO** parts of a mobile network incharge of switching functionality. **(4 marks)**
- b) Explain the components that make up a mobile station MS. **(8 marks)**
- c) Using a well labeled diagram, shows **SIX** BTS Base transceiver station interconnect. **(6 marks)**