



ZIMBABWE EZEKIEL GUTI UNIVERSITY

FACULTY OF HEALTH, SCIENCE AND TECHNOLOGY

DEPARTMENT OF DIGITAL TECHNOLOGY

EXAMINATION PAPER

COURSE CODE : CDT 410
COURSE TITLE : Mobile Computing
SPECIAL REQUIREMENTS : None
DURATION : 3 Hours
LEVEL : 4.2
DATE : May 2022
29 JUN 2022

INSTRUCTIONS TO CANDIDATES:

1. This paper consists of 2 sections
2. Answer **ALL** Questions in SECTION A and **ANY THREE** Questions from SECTION B in booklet provided.
3. Start each Question on a new page

There are 3 printed pages for this question paper

SECTION A

Answer **ALL** questions from this section

QUESTION 1

- a) What is Mobile Computing [1 mark]
- b) Identify and briefly explain the two different kinds of mobility [4 marks]
- c) List any FIVE characteristics of Mobile Computing [5 marks]
- d) Briefly explain any FIVE applications of Mobile Computing [10 marks]

QUESTION 2

- a) What is ALOHA? [4 marks]
- b) Briefly explain the following multiple access schemes:
 - i) FDMA
 - ii) TDMA
 - iii) CDMA
 - iv) SDMA[4 x 4 marks]

SECTION B

Choose any **THREE** questions from this section each question carries **20 marks**.

QUESTION 3

Illustrate and clearly describe the Hidden and Exposed terminal problem [20 marks]

QUESTION 4

- a) Draw a neat diagram of WAP architecture and explain in detail. [10 marks]
- b) Explain how mobile TCP improves the TCP performance in wireless and mobile environment. [10 marks]

QUESTION 5

- a) What is the basic purpose of DHCP? Name the entities of DHCP. [10 marks]
- b) Explain standard routing protocols for mobile communication. [10 marks]

QUESTION 6

Clearly explain the following terms as associated with mobile IP:

- a) Home network
- b) Foreign Agent
- c) Foreign Address (FA)
- d) Correspondent Node (CN)
- e) Care-of-Address (COA)

[5 x 4 marks]

*** Wish you all the best ***

12/0 AM

