



# ZIMBABWE EZEKIEL GUTI UNIVERSITY

## FACULTY OF SCIENCE, TECHNOLOGY, AGRICULTURE & FOOD SYSTEMS DEVELOPMENT

### DEPARTMENT OF DIGITAL TECHNOLOGY

#### EXAMINATION PAPER

COURSE CODE : CDT 410  
COURSE TITLE : Mobile Computing  
SPECIAL REQUIREMENTS : None  
DURATION : 3 Hours  
LEVEL : 4.2  
DATE : 2024

13 JUN 2024

#### INSTRUCTIONS TO CANDIDATES:

1. This paper consists of 2 sections
2. Answer **FOUR** questions only.
3. Start each Question on a new page

There are 3 printed pages for this question paper

### QUESTION 1

- a) What is handoff [2 marks]
- b) Give any FOUR reasons why handoff occurs [8 marks]
- c) Identify and briefly explain any 5 types of handoff [10 marks]

### QUESTION 2

- a) Identify and briefly explain on any FIVE limitations and challenges of mobile computing [10 marks]
  - b) Illustrate the objectives of Bluetooth technology [10 marks]
- 

### QUESTION 3

- a) What is an IP? [2 marks]
- b) Clearly explain why the traditional IP cannot be used in a mobile network. [8 marks]
- c) What are the main differences between the traditional IP and the mobile IP? [6 marks]
- d) How does mobile IP support mobile hubs? [4 marks]

### QUESTION 4

- a) Identify and clearly explain the FOUR important steps for the discovery of care-of-address in the context of movement of a mobile to a foreign network. [16 marks]
- b) Differentiate the functionalities of a foreign agent & Home agent? [4 marks]

**QUESTION 5**

Illustrate cellular network architecture

**[20 marks]**

**\*\*\* Wish you all the best \*\*\***

Q | 1 | (am)