



# ZIMBABWE EZEKIEL GUTI UNIVERSITY

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## FACULTY OF HEALTH, SCIENCE AND TECHNOLOGY

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### DEPARTMENT OF INFORMATION SYSTEMS

#### EXAMINATION PAPER

**COURSE CODE** : MIS 109  
**COURSE TITLE** : COMPUTER ORGANISATION AND ARCHITECTURE  
**SPECIAL REQUIREMENTS** : None  
**DURATION** : 3 Hours  
**LEVEL** : 1.2  
**DATE** : June /July 2022

05 JUL 2022

06 JUL 2022

#### INSTRUCTIONS TO CANDIDATES:

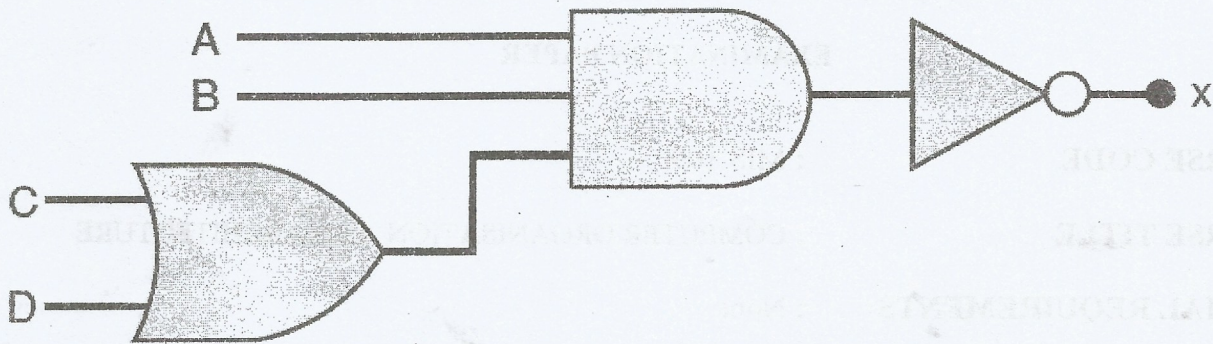
1. No cell phones are allowed in the examination venue.
2. Answer any **FOUR (4)** questions.
3. Begin each question on a new page.
4. Each question carries 25 marks.

### QUESTION 1

a) Define each of the following:

- i. Accumulator. [3]
- ii. Stack. [3]
- iii. Registers. [3]
- iv. System bus. [3]
- v. Addressing modes [3]

b) Consider the following logic circuit:



Compute the output [10]

### QUESTION 2

- a) Compare and contrast the RISC architecture and CISC architecture. [15]
- b) Explain the concept of pipe lining and how it improves performance. [10]

### QUESTION 3

Discuss the factors which affect the performance of a computer [10]

### QUESTION 4

- a) Explain the importance of cache memory in a computer system. [10]
- b) Explain with the aid of a diagram, the bus structure of a computer. [15]

### QUESTION 5

Discuss the brief history of computers generation [25]

\*\*\*\*\*END OF PAPER\*\*\*\*\*