



ZIMBABWE EZEKIEL GUTI UNIVERSITY

**FACULTY OF SCIENCE, TECHNOLOGY, AGRICULTURE AND FOOD
SYSTEMS DEVELOPMENT**

INFORMATION SYSTEMS DEPARTMENT

EXAMINATION PAPER

COURSE CODE : BIS414
COURSE TITLE : INFORMATION SYSTEMS SECURITY
DURATION : 3 Hours
LEVEL : 4.1
DATE : 2026 15 APR 2026

INSTRUCTIONS TO CANDIDATES:

1. Answer ALL 4 questions
2. Each question carries 25 Marks.

QUESTION 1

- a. Consider a scenario where a company's website is compromised via a cross-site scripting (XSS) attack. Discuss the steps an attacker might take during this attack and potential countermeasures the company could implement. [17 marks]
- b. Explain the concept of 'least privilege' in access control. [8 marks]

QUESTION 2

- a. Analyze a case where a phishing attack successfully leads to credential theft. What methodologies did the attacker employ, and how could the target have better protected themselves? [25 marks]

QUESTION 3

Analyze the importance of a remote work policy in today's organizational environment. What key elements should be included to ensure security? [25 marks]

QUESTION 4

- a. Consider a scenario where a company discovers unauthorized access to its systems. Discuss how a computer audit could help investigate the incident and prevent future occurrences. [15 marks]
- b. Critically assess the effectiveness of the **perimeter security** model in a world of remote work and zero-trust assumptions. [10 marks]

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