



# MANICALAND STATE UNIVERSITY OF APPLIED SCIENCES

**FACULTY OF ENGINEERING, APPLIED SCIENCE AND  
TECHNOLOGY**

**DEPARTMENT: COMPUTER SCIENCE AND INFORMATION SYSTEMS**

**MODULE: CYBER SECURITY AND PROFESSIONAL ETHICS**

**CODE: INSY414**

**SESSIONAL EXAMINATIONS  
DECEMBER 2023**

**DURATION: 3 HOURS**

**EXAMINER: MS G. MUTIPFORO**

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## INSTRUCTIONS

1. Answer *all* questions in *Section A*
2. Answer *any three (3)* questions from *Section B*.
3. Start a new question on a fresh page

*Total marks 100*

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## **SECTION A: Answer all questions in this section.**

### **Question 1**

A university student suspected that there was a vulnerability in a system in a public access laboratory. To test her suspicion, she tried to exploit the vulnerability and succeeded. She gained privileges that she would not normally have. She reported the vulnerability and her actions to the system staff. The system staff then reported the incident to the laboratory manager. The laboratory manager filed charges against the student for breaking into the computing system. The student had to appear before the university disciplinary board.

- a) Was the student's way of trying to exploit the vulnerability fair and just? [5]
- b) Was the student obligated to report the vulnerability after she exploited it? [4]
- c) Did the system staff and laboratory manager act in accordance with ethical standards in filing charges against the student? [5]
- d) What are the ethical implications of trying to exploit vulnerabilities in computer systems? [6]
- e) Highlight any legal implications of trying to exploit vulnerabilities in computer systems? [6]
- f) Highlight the best practices for reporting vulnerabilities in computer systems? [6]
- g) How can we ensure that computer systems are secure while still allowing for research to be conducted? [8]

## **SECTION B**

### **ANSWER ANY THREE QUESTIONS FROM THIS SECTION**

#### **Question 2**

Explain the following terms in relation to cyber law and professional ethics

- i. Intellectual property
- ii. Patent
- iii. Copy right
- iv. Trade mark
- v. Trade secrets

[20]

**Question 3**

- a) Explain in detail the major ethical issues faced by Information Technology. [20]

**Question 4**

- a) Define whistleblowing and explain why it is important. [5]  
b) “Being ethical is doing what the law always requires.” Discuss. [15]

**Question 5**

The Cyber law and Data Protection Act of Zimbabwe [CHAPTER 12:07] highlighted different cybercrimes that can be committed over the internet. Expound on any five (5) cybercrimes you are familiar with. [20]

**END OF EXAMINATION**