

# Chinhoyi University of Technology



School of Engineering Science and Technology  
Department of ICT and Electronics

Course: Cyber Security (Main)  
Code: CUITM420  
Date: April 2023  
Duration: 3 Hours

## **INSTRUCTIONS TO CANDIDATES:**

1. Answer **any FOUR (4)** questions.

### Question 1

Discuss the security issues and possible solutions that could arise with the implementation of smart homes.

[25]

### Question 2

- a) You analyse an image of a hard drive to locate deleted RAR files. You complete your analysis and do not find any deleted RAR files. Your boss tells you not to write a report. Describe what you would do and why. [10]
- b) Name three types of software vulnerability; give an example for each and an explanation of how each could be exploited. [15]

### Question 3

Elaborate on the need to perform a balanced risk assessment, the techniques that can be used and why this is necessary.

[25]

### Question 4

You are considering the implementation of BYOD in your organisation. Write a detailed report explaining the security issues and possible solutions that could arise. Include any cybersecurity tools that you might use as part of your solutions.

[25]

### Question 5

Information security models provide a way to formalize security policies. State the information security model(s) you would use in an academic institution and explain why you would use the one you have stated.

[25]

### Question 6

- a) Using the Vigenere Cipher, **encrypt** plain text "TO BE OR NOT TO BE THAT IS THE QUESTION" using the key "RELATIONS". [15]
- b) Using the Vigenere Cipher, **decrypt** cipher text "HHWKSW XSLGNT CG" using the key "PASCAL". [10]

– END OF EXAM –