TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION COUNCIL (TVET CDACC)

Qualification Code	**:** 061006T4ICT
Qualification	**:** ICT Technician Level 6
Unit Code	**:** IT/OS/ICT/CR/03/6/A
Unit of competency	**:** Control ICT Security Threats

WRITTEN ASSESSMENT

INSTRUCTIONS TO CANDIDATE

1. You have 3 **hours** to answer all the questions.
2. The paper consists of **two** sections: **A** and **B**.
3. Answer **ALL** questions in Section **A** and any **Three** from section **B**.
4. Marks for each question are indicated in the brackets.
5. A separate answer booklet will be provided.

This paper consists of 3 printed pages

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing

SECTION A (40 MARKS)

(Answer all the questions in this section)

1. Define the term computer security. (2 Marks)
2. List any **THREE** physical threats to a computer system. (3 Marks)
3. State any **THREE** ways attackers may use to identify an individual password. (3 Marks)
4. Outline **FOUR** important functions that information security performs for an organization. (4 Marks)
5. Giving an example explain the term **cyber security** threat. (3 marks)
6. Describe **identity Theft** as used in computer security. (3 Marks)
7. Differentiate between *Vulnerability Assessment* and *Penetration Testing.* (4 Marks)
8. Outline **TWO** reasons why it is important to use a VPN when accessing internet using a public network. (2 Marks)
9. Explain **THREE** ways in which data from within the organization may be exposed or accessed by unauthorized entity. (3 Marks)
10. Describe **THREE major** classifications of computer hackers. (6 Marks)
11. Highlight **FOUR** symptoms of a computer virus. (4 marks)
12. State **THREE** ways that you can use to prevent Brute Force attacks. (3 Marks)

SECTION B (60 MARKS)

(Answer any THREE questions in this section)

13. a) Discuss **FIVE** elements of an Information Security Policy. (10 Marks)

b) Discuss the following types of malicious ware. (10 Marks)

i. Viruses
ii. Trojans
iii. Worms
iv. Ransomware
v. Spyware

14. a) State any **FIVE** types of computer Security Testing. (5 Marks)

b) Outline any **SEVEN** ways one can use to prevent identity theft. (7 Marks)

c) Discuss any **FOUR** cyber security risks in the banking industry and suggest how each can be minimized. (8 Marks)

15. a) Explain each of the following terms as used in computer security. (10 Marks)

i. Firewall
ii. Hacking
iii. Threat
iv. Vulnerability
v. Risk

b) Explain **THREE** main objectives of Information security. (6 Marks)

c) Give **FOUR** rules that must be observed in order to keep within the law when working with data and information. (4 Marks)

16. a) Discuss any **SIX** measures you can advise an organization to apply to protect itself from cyber-attacks. (12 Marks)

b) Outline **FOUR** ways of preventing piracy with regard to data and information. (4 Marks)

c) Distinguish between data security and data integrity as used ICT security. (4 Marks)