

061206T4CYB

CYBER SECURITY TECHNICIAN LEVEL 6

SEC/OS/CS/CR/06/6/A

SECURE SOFTWARE APPLICATION

Nov. / Dec. 2023



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

WRITTEN ASSESSMENT

Time: 3 hours

INSTRUCTIONS TO CANDIDATES

1. This paper has three sections **A**, **B** and **C**.
2. You are provided with a separate answer booklet.
3. Marks for each question are as indicated.
4. Do not write on the question paper.

This paper consists of 3 printed pages

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

SECTION A: (20 Marks)

Answer ALL questions in this section.

1. Describe TWO categories of software giving two examples in each category. **(6 marks)**
2. State SIX elements that should be considered during software application hardening **(6 marks)**
3. Explain THREE benefits of monitoring logs. **(6 marks)**
4. Discuss THREE ways you can harden your software application. **(6 marks)**
5. Define the term *software license*. **(2 marks)**
6. Describe TWO categories of software licenses **(4 marks)**
7. Explain THREE factors to consider when selecting a software application **(6 marks)**
8. Outline FOUR standards applicable to application software assessment. **(4 marks)**

SECTION B: (60 Marks)

Answer any THREE questions in this section.

9. a). TechSoft development Company is in the process of conducting security assessment of their ERP system. As a software security expert, advice the company on the possible tools for assessing security of their system. **(10 marks)**
- b). Explain FIVE factors that TechSoft Development Company may consider when selecting software assessment tools. **(10 marks)**
10. a). As a software security consultant, BidiiSoft Development Company has approached you to advice on the process of conducting security assessment of their system. Describe **five** key steps that you would follow in assessing their system **(10 marks)**
- b). Juhudi College are mitigating security incidents that have been attacking their software applications. Discuss SIX steps that the college would follow to document security incidents. **(10 marks)**
11. a). Describe FIVE application practices that Juhudi College should implement to minimize security incidents. **(10marks)**
- b). Companies are looking for ways to improve their application security. One of the major concerns they must address is how to measure the performance of their application security. Discuss FIVE measures that can be used to assess the application security performance. **(10 marks)**
12. Software application monitoring is a critical component of application management. It helps identify and resolve issues that could cause downtime, performance degradation, or security breaches.
- a) Discuss FIVE types of software application monitoring. **(10 marks)**
- b) Discuss FIVE security measures used to secure software application. **(10marks)**

END