



DEPARTMENT OF SOFTWARE ENGINEERING

QUALIFICATION: BACHELOR OF COMPUTER SCIENCE (HONS SOFTWARE DEVELOPMENT)	
QUALIFICATION CODE: 08BCHS	LEVEL: 8
COURSE: SECURE SYSTEMS	COURSE CODE: SSS811S
DATE: JUNE 2025	SESSION: THEORY
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
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THE QUESTION PAPER CONSISTS OF 2 PAGES
(Including this front page)

INSTRUCTIONS

1. Answer ALL the questions.
2. Write clearly and neatly.
3. In answering questions, be guided by the allocated marks.
4. Number your answers clearly following the numbering used in this question paper.

PERMISSIBLE MATERIALS

1. None

Question 1

- (a) What is Cyber Kill Chain? Explain the attack example for each stage of the Cyber kill Chain with the examples of defence techniques. [10 Marks]
- (b) How do the threat actors carry out their attack? Explain the attack methods. [10 Marks]

Question 2

- (a) How can organisations design effective frameworks to identify, manage, and mitigate insider risks? [10 Marks]
- (b) While implementing the least privilege model, what are the best practices that need to be followed? [10 Marks]

Question 3

- (a) What are the key characteristics that all changes should possess to remain effective, secure, and sustainable in such a dynamic landscape? [10 Marks]
- (b) In a world where technology, threats, and business needs are constantly evolving, how can you architect your infrastructure and operational processes to remain responsive and adaptive to inevitable changes? [10 Marks]

Question 4

- (a) What kinds of incidents or errors require a recovery process? [10 Marks]
- (b) What are the common motivations behind cyberattacks? [10 Marks]

Question 5

- (a) Define Trojan Horse and its multi-stage lifecycle to achieve its objective. [05 Marks]
- (b) For each of the stages, suggest one specific defence mechanism that could prevent, detect, or respond to the attack. [05 Marks]
- (c) Define the term blast radius in the context of securing the systems. [05 Marks]
- (d) Explain the key strategies to control and reduce the blast radius during a security breach. [05 Marks]

----- END OF EXAMINATION -----