



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS
DEGREE OF MASTER OF SCIENCE IN IT SECURITY AND AUDIT
1ST YEAR 2ND SEMESTER 2024/2025 ACADEMIC YEAR
(KISUMU CAMPUS)

COURSE CODE: ICM 1104

COURSE TITLE: SECURING E-COMMERCE

EXAM VENUE: _____ STREAM:

DATE: 23/4/2025 EXAM SESSION: 14.00-17.00

TIME: 3HOURS

INSTRUCTIONS

1. Answer any **THREE** questions
2. Candidates are advised not to write on the question paper
3. Candidates must hand in their answer booklets to the invigilator while in the examination room
4. No mobile devices (e.g. laptops, phones. e.t.c.) are allowed into the Examination Room

QUESTION ONE**(20 MARKS)**

- (a) Explain **FOUR** features of security of an e-commerce site. (8 Marks)
- (b) Discuss **FOUR** secure online shopping guidelines. (12 Marks)

QUESTION TWO**(20 MARKS)**

- (a) Discuss **THREE** ecommerce regulations you should be in compliance with when trading online. (6 Marks)
- (b) Social engineering is a type of crime that manipulates people into giving up their confidential information to bad actors. Masters of social engineering work to acquire sensitive information through means of trust, as opposed to hacking someone's account. The theory behind social engineering is that humans have a natural tendency to trust others, which makes it easier to trick someone into divulging personal information than it is to hack an account. This is negatively affecting e-commerce transactions environment.

Required:

- (i) Describe how social engineering attacks are designed (4 Marks)
- (ii) With relevant examples, describe common types of social engineering attacks commonly experienced in e-commerce environment. (10 Marks)

QUESTION THREE**(20 MARKS)**

- (a) Discuss **FOUR** security methods for E-Commerce (8 Marks)
- (b) Discuss the best practices for the Payment Card Industry Data Security Standard (PCI DSS) (12 Marks)

QUESTION FOUR**(20 marks)**

- (a) Discuss the processes that must be supported by a typical E-commerce software (8 Marks)
- (b) Evaluate the **SIX** layers of functionality or services that make up the E-Commerce application architecture. (12 Marks)

QUESTION FIVE**(20 MARKS)**

- (a) Describe **FOUR** phases of an E-commerce transaction. (8 Marks)

(b) Discuss security measures for each of the phases in (a) above.

(12 Marks)

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JOOUST OBSERVES ZERO TOLERANCE TO EXAM CHEATING