



TECHNICAL UNIVERSITY OF MOMBASA

School of Humanities and Social Sciences

Social Sciences

**UNIVERSITY EXAMINATION FOR:
BACHELOR OF INFORMATION SCIENCE
HIS 4309: INFORMATION SECURITY**

SERIES: APRIL 2025

TIME: 2 HOURS

DATE: 18Apr 2025

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

Question ONE

- i. Explain FIVE fundamentals of information security (10 Marks)
- ii. Malicious hacking is an adversarial threat to information. Discuss five categories of Malicious hackers (10 Marks)
- iii. Discuss how records are classified in relation to information security. (10 Marks)

Question TWO

- i. Explain records administrative control protective measures used to protect systems and information. (10 Marks)
- ii. Highlight the complications that arise from dual storage measure of protecting records (10 Marks)

Question THREE

- i. Highlight FIVE types of access control mechanisms that can be administered to record. (10 Marks)
- ii. Discuss the application and uses of cryptography in records protection. (10 Marks).

Question FOUR

- i. Highlight the need for software security in records and information protection. (10 Marks)
- ii. Discuss the latest trends in information security and how they can be adopted by information centers (10 Marks)

Question FIVE

- i. Describe the physical aspects of information security that an information Centre should consider. (10 Marks)
- ii. Discuss approaches to risk treatment in information security (10 Marks).