NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF APPLIED SCIENCES

DEPARTMENT OF COMPUTER SCIENCE

INFORMATION SECURITY AND AUDITING

SCS4110

Final Examination Paper

November 2024

This examination paper consists of 3 pages

Time Allowed:	3 hours
Total Marks:	100
Examiner's Name:	Mrs. N. Marabada
External Examiner:	Dr C Gorimbo

INSTRUCTIONS

1. Answer any four (4) questions
2. Each question carries 25 marks

MARK ALLOCATION

QUESTION	MARKS
1.	25
2.	25
3.	25
4.	25
5.	25
TOTAL	100

QUESTION ONE

a)   Explain any five (5) reasons why computer and network security is important   [10]

b) Describe the Critical Characteristics of Information.   [15]

QUESTION TWO

a) Compare and contrast the following:

i) Cyber security and computer security   [5]

ii) Authorisation and access control   [5]

b) Discuss the different generations of firewalls   [15]

QUESTION THREE

a) Decrypt the message below that was encrypted with rail fence cipher with four rails: TTTPT QDSYP RSHII XEDOH EIUNS ESLDY TEMES SERSE NELSC NEAUC FLERE GAMAE BHDIH SCUCD NG   [10]

b) Describe how a security policy is implemented in an enterprise.   [15]

QUESTION FOUR

a) Paul wants to set up his own public and private keys. He chooses p= 23 and q= 19 with e= 283. Find d so that ed has a remainder of 1 when divided by (p-1)(q-1).   [10]

b) Describe and explain 3 factors that affect a biometric feature for usability in data security, validation and verification.   [15]

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QUESTION FIVE

a) Discuss the four risk control strategies [12]

b) Explain the risks associated with poorly controlled computer operations [13]