



MURANG'A UNIVERSITY OF TECHNOLOGY

SCHOOL OF COMPUTING AND INFORMATION TECHNOLOGY

DEPARTMENT OF INFORMATION TECHNOLOGY

UNIVERSITY ORDINARY EXAMINATION

2020/2021 ACADEMIC YEAR

**THIRD YEAR FIRST SEMESTER EXAMINATION FOR, DIPLOMA IN
INFORMATION TECHNOLOGY**

SCS 058– COMPUTER SYSTEM SECURITY

DURATION: 2 HOURS

Instructions to candidates:

1. Answer question One and Any Other Two questions.
2. Mobile phones are not allowed in the examination room.
3. You are not allowed to write on this examination question paper.

SECTION A: ANSWER ALL QUESTIONS IN THIS SECTION

QUESTION ONE (30 MARKS)

- a) Define the following terms (6marks)
 - i. Buffer
 - ii. Sandbox
 - iii. Mobile agent system
 - iv. Malware
 - v. Access control
 - vi. Policy
- b) State and explain three damages caused by malwares (6marks)
- c) Explain three advantages of using a firewall in a network (6marks)
- d) Describe two types of encryptions that can be used to secure a connection between two or more systems in a virtual private network (6marks)
- e) Describe the three phases of security policy (6marks)

SECTION B – ANSWER ANY TWO QUESTIONS IN THIS SECTION

QUESTION TWO (20 MARKS)

- a) Describe 5types of access control models (10marks)
- b) State and explain 5 types of malwares (10marks)

QUESTION THREE (20 MARKS)

- a) Discuss 4types of logical access controls (8marks)
- b) Describe what in a computer memory when program is ran (12marks)

QUESTION FOUR (20 MARKS)

- a) Discuss 4 applications of sandbox (12marks)
- b) Discuss 2 types of intrusion detection systems (8marks)