



MURANG'A UNIVERSITY OF TECHNOLOGY

SCHOOL OF COMPUTING AND INFORMATION TECHNOLOGY

DEPARTMENT OF INFORMATION TECHNOLOGY

UNIVERSITY ORDINARY EXAMINATION

2020/2021 ACADEMIC YEAR

**SECOND YEAR FIRST SEMESTER EXAMINATION FOR DIPLOMA IN
INFORMATION TECHNOLOGY**

SCS 054 – OPEN SOURCE SYSTEMS

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 (3marks)
 - (i) Open source software
 - (ii) proprietary software
 - (iii) free software
- b) Is Google open source? Justify (3marks)
- c) Explain three limitations of using open source software. (6marks)
- d) Distinguish between copyright and copy left (2marks)
- e) Give four examples of open- source software (4marks)
- f) Highlight at least four open source software license (4marks)
- g) Compare and contrast open source software and free software. (4marks)
- h) Distinguish between free open source software philosophy and open source initiative philosophy. (4marks)

SECTION B – ANSWER ANY TWO QUESTIONS IN THIS SECTION

QUESTION TWO (20 MARKS)

- a) What is a kernel? (2marks)
- b) Elucidate key feature of linux that make it different from unix (6marks)
- c) Explain the function of the following linux commands. (8marks)
 - (i) cd:
 - (ii) mkdir:
 - (iii) rmdir:
 - (iv) Ls:
- d) Discuss two reasons why open source projects are successful (4marks)

QUESTION THREE (20 MARKS)

- a) Can business benefit from open source software? Discuss (8marks)
- b) List the contents of an inode. (6marks)
- c) Discuss three major open source commercial organizations. (6marks)

QUESTION FOUR (20 MARKS)

- a) Explain two types of open source projects. (4marks)
- b) Various governments have embraced use of open source software. Discuss five ways in which governments have benefited from use of open source project management tools. (10marks)
- c) Explain three open source project management tools (6marks)