



# TECHNICAL UNIVERSITY OF MOMBASA

School of Humanities and Social Sciences

Social Sciences

## UNIVERSITY EXAMINATION FOR: BACHELOR OF INFORMATION SCIENCE

HIS 4402: OPEN SOURCE SOFTWARE AND TOOLS FOR LIBRARY & INFORMATION CENTERS

**SERIES:** JULY 2025

**TIME:** 2 HOURS

**DATE:** Pick Date Jul 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. Describe FIVE essential criteria from the Open Source Definition that software must meet to be considered open-source. (10 Marks)
- ii. Explain FIVE phases in the OSS Community Development Process. (10 Marks)
- iii. Discuss FIVE key features of the GNU project and its significance in the open source movement. (10 Marks)

### **Question TWO**

Explain five essential processes that every open-source community needs to clearly define for effective functioning. (10 Marks)

Highlight five best practices for building an open-source community. (10 Marks)

### **Question THREE**

Discuss five main components of MARC (Machine-Readable Cataloging) formats. (10 Marks)

Explain five prominent examples of open standards used in libraries and information management. (10 Marks)

Marks)

### **Question FOUR**

Describe five key differences between copyleft and permissive open-source licenses. (10 Marks)

Explain five significant characteristics of the GNU General Public License (GPL) that make it a strong copyleft license (10 Marks)

### **Question FIVE**

Explain five key ways in which Apache HTTP Server establishes and manages communication between servers and clients. (10 Marks)

Describe five essential components that enable Apache Web Server to function as an intermediary between servers and clients. (10 Marks)