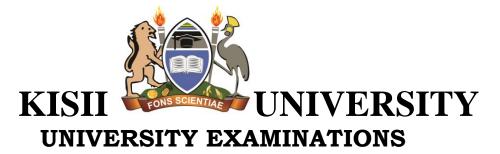# KISII UNIVERSITY
UNIVERSITY EXAMINATIONS

**FIRST YEAR EXAMINATION FOR THE AWARD OF
THE DEGREE OF BACHELOR OF SCIENCE IN MATHEMATICS
FIRST SEMESTER 2021/2022
(FEBRUARY-JUNE, 2022)**

COMP 121: INTRODUCTION TO JAVA PROGRAMMING

STREAM: Y1 S1   **TIME: 2 HOURS**

DAY: THURSDAY, 9:00 AM – 11:00 AM   **DATE: 2/06/2022**

INSTRUCTIONS:

1. *Do not write anything on this question paper.*
2. *Answer Question ONE (compulsory) and any other TWO Questions.*

QUESTION ONE

a. Differentiate the following terminologies

   i.   Syntax errors and Logical errors   [2 Marks]

   ii.   Source code and object code   [2 Marks]

   iii.   Compiler and interpreter   [2 Marks]

b. Write a program in java to find biggest of three numbers initialized   [4 Marks]

c. Demonstrate the initialization of variables in Java programming and how the values stored in variables can be displayed   [4 Marks]

d. Differentiate between procedural and object oriented programming   [5 Marks]

e. With clear illustrations, discuss the process of creating and running programs in java   [5 Marks]

f. List and explain the types of variables in Java [6 Marks]

g. Write a program in C that prompts the user to enter four numbers, then calculates and displays the sum, average and the multiplication results in different lines

[10 Marks]

QUESTION TWO

a. Write a program in java to accept and display student details   [5 Marks]

b. Consider the following statements and draw a flow chart to represent the information flow   [5 Marks]

Assume given marks are x for a student:
If given marks are more than 95, then
Student is brilliant
If given marks are less than 30, then
Student is poor
If given marks are less than 95 and more than 30,
then Student is average

c. Using relevant examples outline the difference between low level programming language and high level programming language   [5 Marks]

QUESTION THREE

a. List and explain the types of comments in Java[6 Marks]

b. List and explain the core computing environments

[4 Marks]

c. Using the do while statement, write a java program to generate numbers from 1 to 20   [5 Marks]

QUESTION FOUR

a. With reference to relevant examples, discuss the loop
   statement in Java programming   [5 Marks]

b. Write a Java program using the break statement to display
   numbers entered in words between 1 and 4. For example if
   a number 1 is entered, the program should be able to
   display "the number entered is one" otherwise it should exit
                                                    [10 Marks]

QUESTION FIVE

a. Discuss the categories of operators in programming
                                                    [5 Marks]

b. Withthe application of the increment operator, write a
   program in java to check if a number if odd or even
                                                    [5 Marks]

c. List and explain any five escape sequence characters used
   in java programming   [5 Marks]