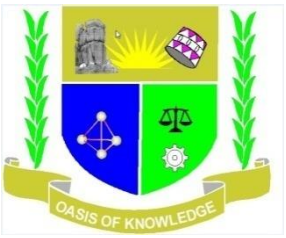

JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN INFORMATION COMMUNICATION TECHNOLOGY/BIS

1ST YEAR 2ND SEMESTER 2024/2025 ACADEMIC YEAR

MAIN CAMPUS

COURSE CODE: ITB 1104

COURSE TITLE: PROGRAMMING IN JAVA

EXAM VENUE: CL 1 STREAM:

DATE: 24/4/2024 EXAM SESSION: 15.00-17.00

TIME: 2HOURS

INSTRUCTIONS

1. **Answer Question 1 (Compulsory) and ANY other TWO questions**
2. **Candidates are advised not to write on the question paper**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room**

Question 1 [30 marks]

a) Write a java program that will print "Hello World!" **(3 marks)**

b) Describe the naming conventions in Java **(4 marks)**

c) Describe the rules to be followed when using Java identifiers **(4 marks)**

d) What are the types of access modifiers in Java? **(3 marks)**

e) Describe the non-primitive data types in Java **(6 marks)**

f) Describe the advantages of using Object Oriented Programming in Java **(4 marks)**

g) Describe the Java class variables **(6 marks)**

Question 2 [20 marks]

a) Discuss any five features of Java **(10 marks)**

b) Discuss any five Object Oriented Concepts **(10 marks)**

Question 3 [20 marks]

a) With an aid of a diagram, illustrate the flow diagram a decision-making statement **(5 marks)**

b) With an aid of a diagram, illustrate the flow diagram of a loop statement **(5 marks)**

c) Write a program that uses a for loop to print numbers starting from 10 to 19 **(5 marks)**

d) Write a program that uses the if statement to check if a value of a variable, x is less than 20 **(5 marks)**

Question 4 [20 marks]

a) Write program that will find the maximum value of five numbers **(10 marks)**

b) Write program that will find the minimum value of six numbers **(10 marks)**

Question 5 [20 marks]

a) Discuss any five Java primitive Data Types that are supported by Java **(10 marks)**

b) Discuss the rules for using the Classes and Objects Concepts **(10 marks)**