



ZIMBABWE EZEKIEL GUTI UNIVERSITY

FACULTY OF HEALTH, SCIENCE AND TECHNOLOGY

DEPARTMENT INFORMATION SYSTEMS

EXAMINATION PAPER

COURSE CODE : MIS212
COURSE TITLE : OBJECT ORIENTED PROGRAMMING
SPECIAL REQUIREMENTS : None
DURATION : 3 Hours
LEVEL : 2.1
DATE : November 2022
02 DEC 2022 01 DEC 2022

INSTRUCTIONS TO CANDIDATES:

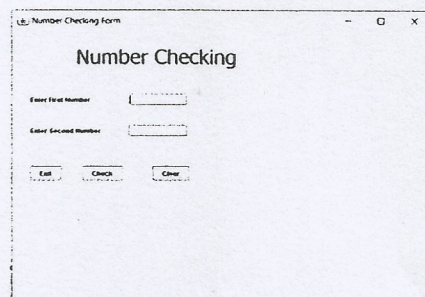
1. Answer all questions in Section A and any 3 in Section B.
2. Show all the working.
3. Calculators and slide rules are allowed.

SECTION A: Answer all questions

1. Explain the following terms in relation to OOP giving examples where necessary:
 - a) Keywords
 - b) Instance
 - c) Constructor
 - d) Variable (2 marks each)
2. Discuss the 3 types of variables in Java and use code snippets to demonstrate their implementation. (12 marks)
3. Discuss the 4 pillars of OOP (20 marks)

SECTION B: Answer any 3 questions

4.
 - a) What are the 2 types of packages in java. (2 marks)
 - b) Discuss the importance of implementing Packages in Java. (4 marks)
 - c) Using code snippets clearly show how inheritance is applied in packages. (14 marks)
- 5.



Write a program that accepts user input for the 2 text boxes in the diagram above and checks which number is greater than the other when user click **Check** button and clears the textboxes when user clicks the **Clear** button. (20 marks)

6. Create an abstract class **Shape** which has an abstract method **area**. Create another class Square that inherits Shape and calculates the area of a square (length x width). Use the main method to create objects of the classes and display the area of square. (20 marks)
7. Write a program that calculates the perimeter of a circle, a square and a triangle implementing method overloading (20 marks)
8. Write a program using control statements that produces the following sequence after user has input the number of rows:

12345

1234

123

12

1

(20 marks)

THE END