



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS
UNIVERSITY EXAMINATION FOR THE DEGREE OF ACTUARIAL SCIENCE WITH
IT
YEAR 2, SEMESTER 1
2024/2025 ACADEMIC YEAR
MAIN CAMPUS

COURSE CODE: ITB 9203

COURSE TITLE: Object Oriented Programming in Java

VENUE:.....MAIN.....STREAM.....

DATE: EXAM SESSION: AUGUST-DECEMBER 2024

TIME: 2.00 HOURS

INSTRUCTIONS:

- 1) Answer QUESTION ONE (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**
- 4) Mobile phones are NOT allowed in the examination room.**

QUESTION ONE (30 MARKS)

- i) The team members that started Java are also known as (2 Marks)
- a) Green Team
 - b) OOP developers
 - c) The Red team
 - d) The POP, OOP, Red developers
- ii) list the 3 types of comments in java. (3 Marks)
- iii) Discuss any five Features of Java programming (10 Marks)
- iv) Discuss any five areas of Java application (10 Marks)
- v) Define what is Java (2 Marks)
- vi) Discuss the popular Java Editors that you know (3 Marks)

QUESTION TWO (20 MARKS)

- a) Explain what you understand by Java Virtual Machine (JVM) and its functions (5 Marks)
- b) Explain any Five advantages and disadvantages of Java language (10 Marks)
- c) What is the function of a super keyword (2 Marks)
- d) Name three operators that can't be overloaded (3 Marks)

QUESTION THREE (20 MARKS)

- a) State the limitations of inheritance (4 Marks)
- b) What is the difference between a base class and a superclass (2 Marks)
- c) Discuss any five limitations of Object-Oriented programming. (10 Marks)
- d) State the main features of Object oriented programming (4 Marks)

QUESTION FOUR (20 MARKS)

- a) Explain the difference between object oriented programming and structural programming. (10 Marks)
- b) Discuss the difference between a class and an object (10 Marks)

QUESTION FIVE (20 MARKS)

- a) State different types of inheritance java. (5 Marks)
- b) An algorithm should have some characteristics, explain them (8 Marks)
- c) The programming paradigm is referred to the technique or approach of writing a program. The programming paradigms can be classified into different types. Discuss the programming paradigms types in diagram form. (7 Marks)