



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

COURSE CODE: WAB 2110

COURSE TITLE: PROGRAMMING METHODOLOGIES

EXAM VENUE: LAB 1

STREAM:

DATE: 16/4/2025

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) Explain what the term programming methodology means (5 marks)
- b) Describe the difference between decision structures and selection control structures (4 marks)
- c) Describe the difference between a modular approach and bottom-up approach types of methodologies (4 marks)
- d) What are some of the questions that help in understanding a business? (5 marks)
- e) Explain the tips one can use to write simple instructions (6 marks)
- f) Describe the pointers one would use in identification of modules in a software (6 marks)

Question 2 [20 marks]

- a) Discuss the advantages of modular programming offers a programmer in solving a problem (10 marks)
- b) Discuss the advantages an algorithm offers to a programmer is their quest of solving a problem. (10 marks)

Question 3 [20 marks]

- a) Discuss the characteristics of a good program. (10 marks)
- b) Discuss the advantages of providing a step-by-step solution in the implementation of modules (10 marks)

Question 4 [20 marks]

- a) Discuss the different types of programming methodologies prevalent among software developers (10 marks)
- b) Discuss the problems that may crop up if a system analyst fails to create clear, concise and thorough requirements document (10 marks)

Question 5 [20 marks]

- a) Discuss some of the guidelines for creating documents (10 marks)
- b) Discuss some of the important documents that a software is associated with. (10 marks)