



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL INFORMATICS AND INNOVATIVE SYSTEMS**  
**UNIVERSITY EXAMINATION FOR THE DEGREE OF SCIENCE**  
**COMPUTER SECURITY & FORENSICS**  
**1<sup>ST</sup> YEAR 2<sup>ND</sup> SEMESTER 2013/2014 ACADEMIC YEAR**  
**CENTRE: MAIN**

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**COURSE CODE: IIT 3122**

**COURSE TITLE: SYSTEM BUILDING**

**EXAM VENUE: LR 2**

**STREAM: BSc. Computer Security & Forensics**

**DATE: 13/12/2013**

**EXAM SESSION: 11.30 – 1.30 PM**

**TIME: 2 HOURS**

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**Instructions:**

- 1. Answer question 1 (Compulsory) and ANY other 2 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 ONE

- a) State the three (3) key components that need to be considered and understood when defining a project.
- b) Briefly discuss four (4) measures of project success.
- c) List and explain the steps of system development life cycle method of information systems development.
- d) Explain the different factors considered in the identification of a problem to be considered for computerization.
- e) Discuss different types of feasibility analysis.

**6+8+8+4+4**

## QUESTION TWO

- a) Differentiate between Top down functional decomposition and object oriented decomposition as forms of design approaches.
- b) Describe how prototyping can be used during requirements determination and outline if it is better or worse than traditional methods?
- c) What is a data flow diagram and why do systems analysts use them?

**6+8+6**

## QUESTION THREE

- a) Discuss four design constraints in system design
- b) Data dictionary is an important tool for documentation. Explain what data dictionary is and how it's used in system development.
- c) As a system developer, discuss five factors you will consider so as to design a user friendly system software

**4+6+10**

## QUESTION FOUR

- a) How can object oriented system development reduce time and cost of developing a system
- b) What are CASE tools and briefly give examples of how they are used in systems building
- c) Explain **an Information Systems Architecture giving specific examples.**

**8+8+4**

## QUESTION FIVE

- a) Compare and contrast between system designers and system builders and explain their roles in systems building
- b) Outline and describe the four distinct focuses in a system
- c) Explain the building blocks of systems interfaces

**6+8+6**