



**JARAMOGI OGINGA ODINGA UNIVERSITY  
OF SCIENCE & TECHNOLOGY  
UNIVERSITY EXAMINATIONS 2012/2013  
2<sup>ND</sup> YEAR 1<sup>ST</sup> SEMESTER EXAMINATION FOR THE  
DEGREE OF BACHELOR OF SCIENCE IN COMPUTER  
SECURITY AND FORENSIC  
(MAIN)**

**COURSE CODE: IIT 3122**

**COURSE TITLE: SYSTEMS BUILDING**

**DATE: 12/8/2013**

**TIME: 2.00-4.00 PM**

**DURATION: 2 HOURS**

**INSTRUCTIONS**

- 1. This paper consists of 5 Questions.**
- 2. Answer Question 1 (Compulsory) and any other 2 questions.**
- 3. Write your answers on the answer booklet provided.**

### **QUESTION ONE 30MARKS**

- a) Define a system and highlight its major components. (6marks)
- b) Explain the different factors considered in the identification of a problem to be considered for systems building. (8marks)
- c) Explain the Phases in system development life cycle. (10 marks)
- d) Why it is necessary to give good system documentation. (6 marks)

### **QUESTION TWO 20MARKS**

- a) Explain the different ways in which data can be collected during system development. (6 marks)
- b) State and contrast the difference between a structured and object oriented approach of systems building. ( 8 marks)
- c) Explain and give an example of a requirement specification document. (6 marks)

### **QUESTION THREE 20MARKS**

- a) Defining the architecture of a software system involves the choice of architectural style. Expound on the statement. (5 marks)
- b) Discuss the models that can be adopted during system analysis and design. (10 marks)
- c) Explain why its necessary to have good documentation of the system processes and data about the target system. (5 marks)

### **QUESTION FOUR 20MARKS**

- a) Data dictionary is an important tool for documentation. Explain what data dictionary is and how it's used in system development. (10 marks)
- b) As a system developer, discuss five factors you will consider so as to design a user friendly system. (10 marks)

### **QUESTION FIVE 20MARKS**

- a) Organizational aspects of software development are crucial for all successful projects. Explain (5 marks)
- b) Efficient management of software projects must be based on some explicit, strategic goals and organization's interests. Outline some of these goals. (10 marks)
- c) When a project manager doesn't create a schedule, the organization is given an unrealistic view of how the project will progress. Discuss. (5 marks)