



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS**  
**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR SCIENCE IN**  
**SECURITY AND FORENSICS**  
**3<sup>rd</sup> YEAR 1st SEMESTER 2016/17 ACADEMIC YEAR**  
**MAIN CAMPUS**

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**COURSE CODE: IIT 3311**

**COURSE TITLE: COMPUTER FORENSIC II**

**EXAM VENUE: LAB 10**

**STREAM: BSC COMP SECURITY**

**DATE: 19/12/16**

**EXAM SESSION: 9.00 – 11.00 AM**

**TIME: 2.00 HOURS**

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**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) What do you understand by the term Disk Imaging? **(2 marks)**
- b) List down three methods used in preventing data loss **(3 marks)**
- c) State three methods of ensuring data integrity in a file system **(6 marks)**
- d) Outline three techniques of data recovery. **(9 marks)**
- e) You have been working on computer on a Microsoft word doc in a lab and took a few minutes break, on return you realize that power has just gone off as a result, the file you were working on has been deleted before you saved the contents. At the same time a document that you had saved on the desktop has been deleted by some unknown person. Briefly explain how you would go about retrieving the two documents and the steps you would take to track the person who deleted the second document on the desktop. **(10 marks)**

### **QUESTION 2 20 MARKS**

- a) Distinguish between steganography and stegaanalysis **(4 marks)**
- b) Outline three factors that are considered during tools analysis in computer forensics **(6 marks)**
- c) Briefly describe the importance of network forensics in the investigation of cybercrime. **(10 marks)**

### **Question 3 20 MARKS**

Compare and contrast NTFS and FAT32 file systems **(20 marks)**

### **QUESTION 4 20 MARKS**

A software company has approached you for advice on whether to use patent or trademark property right to protect their software.

Discuss the advantages and disadvantages of each right and use that to come up with the better of the two Intellectual property rights to recommend to the company. **(20 marks)**

### **QUESTION 5 20 MARKS**

Identify three contents of a log file and in each case briefly describe how it can be used to track an offender. **(20 marks)**