



**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 FORENICS**

**4<sup>TH</sup> YEAR 2<sup>ND</sup> SEMESTER 2014/2016 ACADEMIC YEAR**

**SPECIAL RESIT**

**MAIN CAMPUS**

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**COURSE CODE: IIT 3416**

**COURSE TITLE: COMPUTER GRAPHICS**

**EXAM VENUE: STREAM: BSc SEC & FORE**

**EXAM VENUE: LAB 1**

**DATE: 04/05/16 EXAM SESSION: 2.00 – 4.00 PM**

**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) Define the following terms: [12 marks]
  - i) Computer graphics.
  - ii) Computer animation
  - iii) Graphics system
  - iv) Text clipping
- b) Briefly discuss important applications in computer graphics [6 marks]
- c) Discuss the hardware devices used for computer graphics? [3 marks]
- d) State the complementary colors used in Computer graphics [3 marks]
- e) Color perception usually involves three quantities, list these quantities [3 marks]
- f) Outline three kinds of transformations in computer graphics [3 marks]

**Question 2 [20 marks]**

Using example(s) discuss any ten applications of Computer graphics of the modern world [20 marks]

**Question 3 [20 marks]**

Discuss different types of computer animation techniques. [20 marks]

**Question 4 [20 marks]**

- a) There are three basic classes of transformations: Giving an example, briefly list and explain [6 marks]
- b) Briefly explain any three display technologies [6 marks]
- c) Outline any four line drawing algorithms [4 marks]
- d) Briefly discuss texture mapping? [4 mark]

**Question 5 [20 marks]**

With an aid of a diagram, explain the working of Cathode Ray Tube (CRT) [20 marks]