



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES**  
**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF**  
**EDUCATION (SCIENCE)**  
**2<sup>ND</sup> YEAR 1<sup>ST</sup> SEMESTER 2013/2014 ACADEMIC YEAR**  
**MAIN**

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**COURSE CODE: SZL 205**

**COURSE TITLE: ARTHROPOD BIOLOGY**

**EXAM VENUE: LR 4**

**STREAM: (Biological Sciences)**

**DATE: 24/04/14**

**EXAM SESSION: 2.00 – 4.00 PM**

**TIME: 2.00 HOURS**

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**Instructions:**

- 1. Answer ALL Questions in Section A and ANY other 2 questions in Section B**
- 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.**

**SECTION A (30 marks)**

1. List any three characteristics of Class Branchiura. (3 marks)
2. State three ways by which insects can be distinguished from other arthropods.  
 . (3 marks)
3. Describe the circulatory system in crustaceans . (3 marks)
4. Giving specific examples of species where they occur, describe three types of excretory ducts in arthropods. (3 marks)
5. Name any three types of life cycle patterns exhibited by arthropods. (3 marks)
6. Outline any three-discharge mechanisms of defense secretions in arthropods. (3 marks)
7. List three distinctive features of Class Pauropoda. (3 marks)
8. Describe the characteristic features of segmentation in Class Malacostraca. (3 marks)
9. State three host finding strategies in the Order Acari. (3 marks)
10. List any three differences and three similarities between Sub-Phylum Trilobita and Chelicerata. (3 marks)

**SECTION B (40 marks)**

11. With relevant examples, discuss control of arthropod pests and disease vectors.  
 . (20 marks)
12. Discuss phylogenetic postulates of arthropod ancestry. (20 marks)
13. Write an essay on the external morphology of insects. (20 marks)
14. Using specific examples, discuss the qualities of successful arthropods. (20 marks)