



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY
SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE (BIOLOGICAL SCIENCES)
3RD YEAR 1ST SEMESTER 2016/2017 ACADEMIC YEAR
MAIN CAMPUS - REGULAR

COURSE CODE: SBI 3313

COURSE TITLE: ARTHROPOD BIOLOGY

EXAM VENUE: CHEM LAB

STREAM: (BIO)

DATE: 26/04/16

EXAM SESSION: 9.00 – 11.00 AM

TIME: 2 HOURS

Instructions:

- 1. Answer ALL questions in Section A and Any two questions in Section B**
- 2. Candidates are advised not to write on question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

SECTION A: ANSWER ALL QUESTIONS (30 MARKS)

1. State three ways by which insects can be distinguished from other arthropods. (3 marks)
2. Describe the circulatory system in crustaceans. (3 marks)
3. Giving specific examples of species where they occur, describe three types of excretory ducts in arthropods. (3 marks)
4. Outline any three discharge mechanisms of defense secretions in arthropods. (3 marks)
5. Describe the characteristic features of segmentation in Class Malacostraca. (3 marks)
6. State three host finding strategies in the order Acari. (3 marks)
7. Name the three layers of arthropod cuticle. State their chemical composition and functions of each layer. (3 marks)
8. List any three characteristics of class Branchiura. (3 marks)
9. Compare and contrast Class Ostracoda with Class Copepoda. (3 marks)
10. Outline six factors that have contributed to the success of Class Insecta in terrestrial environment. (3 marks)

SECTION B: ANSWER ANY TWO QUESTIONS (40 MARKS)

11. With reference to specific arthropods, give a detailed account of arthropod reproduction and life cycle patterns. (20 marks)
12. Giving specific examples, write an essay on the ecology and behavior of social insects. (20 marks)
13. Discuss arthropod ancestry. (20 marks)
14. Describe the external morphology of insects. (20 marks)