



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES
DEPARTMENT OF BIOLOGICAL SCIENCES
UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF
SCIENCE IN BIOLOGICAL SCIENCES
3RD YEAR FIRST SEMESTER 2016/2017 ACADEMIC YEAR
REGULAR

COURSE CODE: SBI3313
COURSE TITLE: ARTHROPOD BIOLOGY
EXAM VENUE: STREAM: (BSc Bio)
DATE: EXAM SESSION:
TIME: 2 HOURS

Instructions

- 1. Answer ALL questions in Section A (compulsory) and ANY TWO 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**
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SECTION A: SHORT ANSWER QUESTIONS (30 MARKS)

1. Distinguish any three arthropod sub phyla based on appendage morphology, body region and mouth type. (3 marks)
2. Explain why zoologists depend on comparative studies to explain arthropod ancestry. (3 marks)
3. Describe the importance of tagmosis in arthropods. (3 marks)
4. With specific examples, describe the chemical composition and functions of epicuticle. (3 marks)
5. "Arthropod habitats determine the organ they use for respiration". Explain this statement giving three examples. (3 marks)
6. List any three general characteristics of trilobites. (3 marks)
7. State any six adaptations for terrestrial habitats among members of class Arachnida. (3 marks)
8. With examples, describe any three characteristics of Class Cephalocorda. (3marks)
9. Describe three developmental adaptations for defense among members of the order scutigeromorpha. (3 marks)
10. Giving specific examples of arthropod species where they occur describe three types of head orientations. (3 marks)

SECTION B: ESSAY QUESTIONS (40 MARKS)

11. Giving specific examples, describe the economic importance of arthropods. (20 marks)
12. Write an essay on the biology and behavior of ticks. (20 marks)
13. Describe communication in insects. (20 marks)
14. With examples, describe the development adaptations that have led to arthropods being dominant animal group in the world. (20 marks)