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**University Examinations 2015/2016**

THIRD YEAR, FIRST SEMESTER EXAMINATION FOR BACHELOR OF SCIENCE IN BIOLOGICAL SCIENCES

**SZL 2306 – ARTHROPOD BIOLOGY**

**DATE: NOVEMBER, 2015 TIME:** $2$**HOURS**

**INSTRUCTIONS:** *Answer question* ***one COMPULSORY*** *and any other* ***two*** *questions.*

**QUESTION ONE – (30 MARKS)**

1. (i) Differentiate between apiculture and meliponiculture. (2 Marks)

(ii) Explain one advantage and disadvantage each of myiasis (3 Marks)

1. (i) List the distinguishing features of mosquito larvae from other legless aquatic insects.

 (3 Marks)

(ii) Highlight the uniqueness of *Mansonia* form other mosquito genera. (2 Marks)

1. Write explanatory notes on the following arthropod hormones;
2. Juvenile hormone (2 Marks)
3. Ecdysone (2 Marks)
4. (i) Explain why when one slices and earthworm it wriggles for a considerable duration before eventual death. (2 Marks)



1. Highlight the medical importance of culicine mosquitoes. (5 Marks)
2. Distinguish morphologically and classes Diplopoda and chilopoda. (6 Marks)

**QUESTION TWO (20 MARKS)**

Discuss in details environmentally friendly approaches of controlling arthropod populations during an El Ni$\tilde{n}$o period. (20 Marks)

**QUESTION THREE (20 MARKS)**

Discuss the biology and ecology of *Glossina* sp. (20 Marks)

**QUESTION FOUR (20 MARKS)**

Write an essay on tick control and management in Kenya. (20 Marks)

**QUESTION FIVE (20 MARKS)**

Relate the functions of the following systems to their anatomical construct in the cockroach : Circulatory and Nervous systems. (20 Marks)