

**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**P.O. Box 972-60200 – Meru-Kenya.**

**Tel: 020-2069349, 061-2309217. 064-30320 Cell phone: +254 712524293, +254 789151411**

**Fax: 064-30321**

**Website:** [**www.must.ac.ke**](http://www.must.ac.ke) **Email:** [**info@must.ac.ke**](mailto:info@must.ac.ke)

**University Examinations 2016/2017**

THIRD YEAR, SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOLOGICAL SCIENCES.

**SZL 3303: ARTHROPOD BIOLOGY**

**DATE: DECEMBER, 2016 TIME: 2 HOURS**

**INSTRUCTIONS: -** *Answer question* ***one*** *and any other* ***two*** *questions*

**QUESTION ONE (30 MARKS)**

1. Explain meaning of the term sericulture (2 marks)
2. Distinguish between
3. Endophily, endophagy and anthropophily. (3 marks)
4. Cutaneous, mucocutaneous and visceral leishmaniasis. (3 marks)
5. (i) Explain why a millipede is able to wriggle for a considerable duration long after

its body has been cut into two. (2 marks)

1. Describe briefly the blood circulation in cockroach. (4 marks)
2. List the distinguishing features of;
3. Mosquito adults from other Dipteran flies. (3 marks)
4. Adult *Aedes* from adult *Anopheles.* (3 marks)
5. Illustrate the life cycle of a mite species of your choice indicting clearly the durations between stages. (3 marks)
6. (i) Explain what environmental management for vector control is. (2 marks)

(ii) Describe vegetation control as a strategy under e(i) above. (5 marks)

**QUESTION TWO (20 MARKS)**

1. Explain why the tsetse fly has been described as the ‘poverty insect’. (10 marks)
2. Discuss the Pan African Tsetse and Trypanosomiasis Eradication Campaign in Kenya. (10 marks)

**QUESTION THREE (20 MARKS)**

1. Discuss the central role of the jigger flea as a protagonist of the ‘vicious cycle of poverty’ (10 marks)
2. Describe the prevention and management of jiggers infestations. (10 marks)

**QUESTION FOUR (20 MARKS)**

Discuss why crustaceans are said to be ‘insects of the sea’. (20 marks)

**QUESTION FIVE (20 MARKS)**

Write an essay on facultative and obligate myiasis. (20 marks)