

**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

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**University Examinations 2016/2017**

FOURTH YEAR, FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOLOGICAL SCIENCES.

**SZL 2403: ENTOMOLOGY I**

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

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

**QUESTION ONE (30 MARKS)**

1. Distinguish between: (6 marks)
2. Epipharynx and hypopharynx
3. Prothoracic legs and prolegs
4. Dimorphism and polymorphism
5. Describe briefly the skeletal structure of insects (4 marks)
6. Illustrate four named specialized structures associated with leg modification in insects. (4 marks)
7. Describe briefly genital appendage modifications in insects (5 marks)
8. Describe five types of non-clubbed antennae with examples. (5 marks)
9. Explain briefly why blood circulation is sluggish in insects. (6 marks)

**QUESTION TWO (20 MARKS)**

Discuss insect migration citing appropriate examples. (20 marks)

**QUESTION THREE (20 MARKS)**

Discuss diversity of form at immature stages in holometabolous species. (20 marks)

**QUESTION FOUR (20 MARKS)**

Describe asexual reproduction as exhibited in the Insecta (20 marks)

**QUESTION FIVE (20 MARKS)**

Discuss respiratory adaptations in terrestrial and aquatic insects. (20 marks)