



# THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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**MAIN EXAMINATION**

**JANUARY – APRIL 2017 TRIMESTER**

**FACULTY OF SCIENCE**

**DEPARTMENT OF BIOLOGY**

**REGULAR PROGRAMME**

**BIO 205: General Entomology**

**Date: April 2017**

**Duration: 2 Hours**

**INSTRUCTIONS: Answer Question ONE and any other TWO Questions**

- Q1. (a) Describe the following mouth positions
- i. Hypognathous position (2 marks)
  - ii. Prognathous position (2 marks)
  - iii. Opsitognathous position (2 marks)
  - iv.
- (b) Describe wing coupling mechanism in insects (5 marks)
- (c) Describe six types of antennae found in insects (3 marks)
- (d) Explain various types of respiration in aquatic insects (5 marks)
- (d) Describe the endocrine centres in insects (5 marks)
- (e) State the characteristics of the following sub classes of insects
- i. Apterigota (3 marks)
  - ii. Pterigota (3 marks)
- Q2. Discuss biological success of insects (20 marks)
- Q3. Discuss the process of moulting in insects (20 marks)
- Q4. Describe the internal male reproductive system in a generalized insect, giving the function of each organ (20 marks)
- Q5. Describe the anatomy of the alimentary canal of a typical insect stating the functions of various regions (20 marks)

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