



MERU UNIVERSITY COLLEGE OF SCIENCE & TECHNOLOGY

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University Examinations 2012/2013

SECOND YEAR, FIRST SEMESTER EXAMINATION FOR DIPLOMA IN AGRICULTURE

BIO 0112: ENTOMOLOGY AND PLANT PATHOLOGY

DATE: DECEMBER 2012

TIME: 1 ½ HOURS

INSTRUCTIONS: Answer question **ONE** and any other **TWO** questions

QUESTION ONE – 30 MARKS

- (a) Define the following terms: (5Marks)
- (i) Homeometabolous development
 - (ii) Ecdysis
 - (iii) High fecundity
 - (iv) Disease triangle
 - (v) Parthenogenesis
- (b) Describe the disease cycle. (7Marks)
- (c) How do pest control tactics work on the various agricultural pests? (4Marks)
- (d) Distinguish between the following terms:
- (i) Morphogenesis and metamorphosis
 - (ii) Contactants and systemic types of chemicals. (4Marks)
- (e) List down any two insect orders that contain agricultural pests and indicate how they cause damage to plants. (2Marks)

QUESTION TWO – 15 MARKS

- (a) Discuss the factors contributing to the biological success of insects. (15Marks)

QUESTION THREE – 15 MARKS

- (a) What characteristics should a biocontrol agent exhibit for it to be effective in agricultural production. (7Marks)
- (b) The economic impact of insects is measured not only by the market value of products they destroy and cost of damage they inflict but also the money and resources expended on prevention and control of outbreaks. Discuss. (8Marks)

QUESTION FOUR – 15 MARKS

- (a) Discuss the value of insects in relation to science and technology, cultural and economic importance. (10 Marks)
- (b) Explain the steps to follow in identifying and solving pest problem. (5Marks)

QUESTION FIVE – 15 MARKS

- (a) Discuss the methods commonly used to reduce or eliminate diseases in agricultural production. (12Marks)
- (b) State the means used to identify insect pests. (3Marks)