



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2010/2011

INSTITUTE OF OPEN LEARNING

EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE

SZL 403: GENERAL ENTOMOLOGY

DATE: Tuesday 1st February, 2011

TIME: 8.00 a.m. – 10.00 a.m.

INSTRUCTIONS

Answer ALL questions in Section A and any one question in Section B. Within a section, all questions carry equal marks. Illustrate your answers with well-labeled diagrams wherever appropriate and give relevant examples.

SECTION A: Answer ALL questions.

1. Explain the types of metamorphosis found in pterygote insects.
2.
 - a) State morphological features that are unique to insects.
 - b) Explain the following terminologies:
 - i) Tagmosis
 - ii) Metamerism
 - iii) Haematophagous
 - iv) Mandibles
 - v) Aristate
 - vi) Fossorial
3. Describe briefly two main types of body segmentation in insects.
4. Explain five factors that account for the biological success of insects.
5.
 - a) Explain the structure of malpighian tubules.
 - b) Name four nitrogenous waste products eliminated by insects.

6. Describe briefly the structure of the internal reproductive system of a generalized female insect.
7. State one feature useful for taxonomic identification of the following:
 - i) Lepidoptera
 - ii) Diptera
 - iii) Coleoptera
 - iv) Thysanoptera
 - v) Hymenoptera
8. Explain briefly any FIVE methods used by entomologists for collecting insects.

SECTION B – Answer any ONE question.

9. Describe the structure and functions of the insect integument.
10. Write an essay on nutritional requirements of insects and state the effects of dietary deficiencies on growth and development.

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