



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2010/2011

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE (CROP IMPROVEMENT AND PROTECTION)

KST 301: AGRICULTURAL ENTOMOLOGY

DATE: TUESDAY, 30TH NOVEMBER 2010

TIME: 11.00 A.M. - 1.00 P.M.

INSTRUCTIONS

Answer All Questions in Section A and Two Questions in Section B

SECTION A: ANSWER ALL QUESTIONS (40 Marks)

1. Define the following terms (5 Marks)
 - (a) Parthenogenesis
 - (b) Pest- Host plant interactions
 - (c) Predators
 - (d) Parasitoids
 - (e) Sex pheromones
2. Describe the characteristics you would use to identify the pest *Helicoverpa armigera* at
 - (a) Phylum level
 - (b) Order level(5 marks)
3. Distinguish between ametabolous and holometabolous insects (5 Marks)
4. List down the adverse effects of pesticide use in agriculture (5 Marks)
5. Differentiate between oligophagy and polyphagy (5 Marks)
6. Briefly explain why it is crucial for farmers to understand the biology of insect pests (5 Marks)
7. Describe the types of damage caused to plants by insects in the order Homoptera (5 Marks)

8. Enumerate ways farmers should use to conserve natural enemies of crop pests (5 Marks)

SECTION B: ANSWER ANY TWO QUESTIONS (30 Marks)

9. Citing examples discuss the characteristics of good natural enemies of insect crop pest
(15 Marks)
10. Describe the biology, host plant range, crop damage and management of diamondback moth, *Plutella xylostella*.
(15 Marks)
11. Write an essay on cultural control of agricultural insect pests
(15 Marks)
12. Thrips are one of the most important insect pests in agriculture, describe its life cycle and discuss its economic importance and management
(15 Marks)