



# UNIVERSITY OF EMBU

2019/2020 ACADEMIC YEAR

SECOND SEMESTER EXAMINATIONS

SECOND YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN  
AGED

ACP 202: AGRICULTURAL ENTOMOLOGY

DATE: NOVEMBER 11, 2020

TIME: 2:00 PM – 4:00 PM

INSTRUCTIONS:

Answer Question ONE and ANY Other TWO Questions

QUESTION ONE (30 MARKS)

- a) State Four (4) limitations of classifying arthropods (4 marks)
- b) List four features that distinguish arthropods from other organisms. (4 marks)
- c) Describe the cuticle of the insect integument (4 marks)
- d) Distinguish between primary and secondary pests in storage (2 marks)
- e) Name two hormones involved in the moulting process and briefly explain their role (4 marks)
- f) Briefly describe the order Lepidoptera (4 marks)
- g) Draw and label the hind leg of the grasshopper (4 marks)
- h) Name four disadvantages of using the chemical method to control insect pests (4 marks)



ISO 27001:2013 Certified *Knowledge Transforms*



ISO 9001:2015 Certified

**QUESTION TWO (20 MARKS)**

Discuss the type of plant injury caused by; a) biting and chewing b) piercing and sucking insects giving examples in each case (20 marks)

**QUESTION THREE (20 MARKS)**

Most farmers use one or more methods to control insect pests. Using relevant examples, explain how cultural method can effectively be applied to control crop pests (20 marks)

**QUESTION FOUR (20 MARKS)**

- a) Insects are important arthropods. Discuss their success and usefulness in the ecosystem (10 marks)
- b) Briefly describe the structure and function of the insect's midgut (5 marks)
- c) Insects use plasma as a defensive mechanism. Qualify the statement (5 marks)

**QUESTION FIVE (20 MARKS)**

Discuss the maize weevil (*Sitophilus zeamais*) and Angomous grain moth(*Sitotroga cerealla*) as major pests of storage detailing their life cycles and the damage they cause on stored products and their management (20 marks)

**END**

