



UNIVERSITY OF EMBU

2016/2017 ACADEMIC YEAR

FIRST SEMESTER EXAMINATION

SECOND YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE
IN HORTICULTURE AND BACHELOR OF SCIENCE IN ENVIRONMENTAL
CONSERVATION

ACP 202/213: AGRICULTURAL ENTOMOLOGY

DATE: NOVEMBER 29, 2016

TIME: 2:00-4:00

INSTRUCTIONS:

Answer Question ONE and ANY other TWO Questions

QUESTION ONE (30 MARKS)

- a) Explain six distinguishing characteristics of arthropods. (6 marks)
- b) Briefly explain three adaptive factors which are attributed to insect success as a class of terrestrial animals. (5 marks)
- c) Differentiate between hemimetabolous and holometabolous insects (4 marks)
- d) Explain four functions of saliva in the foregut of a cockroach. (4 marks)
- e) Explain the economic importance of arthropods. (5 marks)
- f) Using a well labeled diagram describe the structure of a generalized insect leg. (6 marks)

QUESTION TWO (20 MARKS)

- a) Briefly discuss five major methods of insect pest control. (10 marks)
- b) Describe the common trapping devices used in collection of insect pests. (10 marks)

QUESTION THREE (20 MARKS)

- a) Briefly explain the functions of wings. (6 marks)
- b) Discuss the order Lepidoptera under the following sub-headings;
- i) Distinguishing characteristics. (4 marks)
 - ii) Host crops. (4 marks)
- c) Explain the role of hormones in molting and metamorphosis in insects. (6 marks)

QUESTION FOUR (20 MARKS)

- a) Describe types of damages caused by insects to crops. (10 marks)
- b) Describe four modifications of the mouth parts in piercing and sucking insects. (10 marks)

QUESTION FIVE (20 MARKS)

- a) Describe three types of pupae. (6 marks)
- b) Explain four characteristics of the order coleoptera. (4 marks)
- c) Explain the secondary functions of the insect exoskeleton. (10 marks)

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