

Uganda Martyrs University

Faculty of Agriculture

B. Agriculture I, Semester II Final Assessment: 2015/2016

Course Unit: ENT 2101: INTRODUCTION TO ENTOMOLOGY

Time: 09:30 am – 12:30 pm

Date: Monday 02nd May 2016

Instructions:

- Answer Four (4) questions
 - Do not write anything on a question paper
 - Time: Three hours
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1. Mr Otim noticed ovoid eggs, 0.6 mm in length and 0.2 mm in diameter among his stored produce.
 - a) Citing both the common and scientific name, identify the pest 3 marks
 - b) List at least four commodities stored which are affected by the above pest 4 marks
 - c) Explain the life cycle and the nature of damage caused by the pest 10 marks
 - d) How should Mr Otim control this pest? 8 marks
2. Selecting any five insect orders and describe their characteristics 25 marks
3. Give a relevant example of an insect which belongs to each of the insect families below 25 marks
 - i- Eriococcidae
 - ii- Miridae
 - iii- Tettigoniidae
 - iv- Formicidae
 - v- Libellulidae
 - vi- Noctuidae
 - vii- Heptageniidae
 - viii- Culicidae
 - ix- Blattidae
 - x- Scarabaeidae
 - xi- Cicadellidae
 - xii- Kalotermitidae

- xiii- *Pentatomidae*
4.
 - a) Using suitable examples, explain how insect wings have been modified for flight. 15 marks
 - b) Describe the modifications of insect legs to different habitats 10 marks
 5. Outline the host plants and explain the life cycle, damage and control of the Mediterranean fruit fly. 25 marks
 6.
 - a) Biological control is a strategy that can be used in the reduction of pests. Listing five examples of biological control agents and the respective pests they control, explain how each agent controls the pest. 15 marks
 - b) Describe the different types of insect mouth parts 10 marks
 7. Mobility and flight, migration and passive defences are adaptations employed by insects to flourish in the ecosystem. Discuss how insects survive their predators using these adaptations 25 marks
 8. Define the following terminologies as used in entomology 25 marks
 - i- Physogastry 2 marks
 - ii- Off-season pest 2 marks
 - iii- Deutonymph 2 marks
 - iv- Mullerian mimicry 2 marks
 - v- Action threshold 3 marks
 - vi- Reflex bleeding 2 marks
 - vii- Push-pull strategy 2 marks
 - viii- Exarate pupae 2 marks
 - ix- Economic injury level 3 marks
 - x- Protonymph 2 marks
 - xi- Naiad 2 marks