



“Investing in Africa’s future”

COLLEGE OF HEALTH, AGRICULTURE & NATURAL SCIENCES

NACP 403: ENTOMOLOGY

END OF FIRST SEMESTER FINAL EXAMINATIONS

NOVEMBER/ DECEMBER 2022

LECTURER: W. MANYANGARIRWA

DURATION: 3 HOURS

INSTRUCTION

ANSWER ANY FOUR QUESTIONS

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EACH QUESTION IS WORTH 25 MARKS

Question One

With the use of relevant examples of insect orders, explain how an ecologist can be able to assess the quality of the water in a major river ecosystem. [25 marks]

Question Two

- a) List ten major orders found in the insect collection that you made as part of this course. [5 marks]
- b) The order Hymenoptera is considered to be the most beneficial of all insect orders. From your understanding of the benefits obtained from insects and insect activity, give evidence to support this statement. [5 marks]
- c) With reference to agro-ecosystems of Eastern and Southern Africa, explain why it is important to conserve certain insect species. [15 marks]

Question Three

- a) For a crop that you have studied in detail, give a concise outline of the insect pest spectrum encountered. Suggest ways in which **growers** of the crop can control the insects pests encountered. [15 marks]
- b) With reference to ecosystems of Eastern and Southern Africa, explain why the region is considered a biodiversity hotspot for insects. [10 marks]

Question Four

Explain the factors that have enabled insects to be the most dominant group of animals on planet earth. [25 marks]

Question Five

With the use of a relevant diagram, explain how you can classify larvae of endopterygote insects into their respective orders. [25 marks]

Question Six

With the use of relevant examples, give a detailed outline of survival strategies used by insects in order to survive in their competitive natural environment. [25 marks]

END OF EXAMINATION PAPER