



MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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University Examinations 2022/2023

SECOND YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN BIOTECHNOLOGY

SZL 3252: INTRODUCTORY ENTOMOLOGY

DATE: APRIL 2023

TIME: 2 HOURS

INSTRUCTIONS: Answer question *one* and any other *two* questions

QUESTION ONE (30 MARKS)

- a) Distinguish between basic and applied entomology (3 marks)
- b) Describe
 - (i) Three types of orientation of the head and mouthparts of insects (3 marks)
 - (ii) Three types of antennae based on external morphology (3 marks)
- c) Detail the biological significance of sound production in insects (3 marks)
- d) Outline
 - (i) The various forms/modes of food selection in insects (3 marks)
 - (ii) Differentiation of the insects hindgut (3 marks)
- e) Highlight three key characteristics of members of the order Lepidoptera (3 marks)
- f) Explain briefly how insect parasitism has been employed in biological control of pests (3 marks)
- g) List three merits of entomophagy (3 marks)

h) Sketch a typical insect growth curve (3 marks)

QUESTION TWO (20 MARKS)

Write an essay on insect biotechnology (20 marks)

QUESTION THREE (20 MARKS)

“Insects have long been associated with humans”. Discuss this statement (20 marks)

QUESTION FOUR (20 MARKS)

Elaborate on the statement that “integrated control entails the deliberate use of different methods to complement each other and minimize harmful effects on the environment”

(20 marks)