



MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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University Examinations 2022/2023

FIRST YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE IN ENTOMOLOGY

SZB 5101: INSECT PHYSIOLOGY AND BIOCHEMISTRY

DATE: APRIL 2023

TIME: 3 HOURS

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

QUESTION ONE (20 MARKS)

- a) Explain briefly the mechanisms of ventilation in aquatic insects (10 marks)
- b) Describe the functions of haemolymph in insect circulatory system (5 marks)
- c) Outline moulting stages in insects (5 marks)

QUESTION TWO (20 MARKS)

Give an account of the process of osmoregulation in insects

QUESTION THREE (20 MARKS)

Discuss the structure and functions of insect integument

QUESTION FOUR (20 MARKS)

- a) Describe the main specialized organs of the insect endocrine system (10 marks)
- b) Give an account of the chemical/biochemical nature of pheromones and their origins (10 marks)