



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

**MAIN EXAMINATIONS
WEBUYE CAMPUS**

**FOURTH YEAR SCHOOL BASED FIRST SEMESTER
EXAMINATIONS**

**FOR THE DEGREE
OF
BACHELOR OF SCIENCE IN EDUCATION SCIENCE**

COURSE CODE: SZL 412

COURSE TITLE: ENTOMOLOGY

DATE: TUESDAY, 19TH APRIL 2022 TIME: 9:00 – 11:00 A.M.

INSTRUCTIONS TO CANDIDATES

Answer ALL questions in section A and ANY TWO selected from section B

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over. 

SECTION A (SHORT ANSWER QUESTIONS, 40 MARKS)

1. Outline the functions of the insect integument (4 Marks)
2. An insect without the antennae is helpless. Give reasons (5 Marks)
3. Briefly describe the functions of wings in insects with examples (4 Marks)
4. Distinguish between open and closed circulatory systems. Which one had an advantage over the other? (4 Marks)
5. Outline the factors that determine molting in insects (4 Marks)
6. List the four types of hormone producing cells in insects (4 Marks)
7. Differentiate between the stomodeum and the mesenteron (4 Marks)
8. Highlight five ways by which aquatic insects respire (5 Marks)
9. Differentiate between the following (a) Allomones (b) Kairomones (iii) Synomones (6 Marks)

SECTION B (ESSAY QUESTIONS, 30 MARKS)

10. Discuss the insect taxonomy based on their leg adaptations (15 Marks)
11. Describe the process of molting in insects (15 Marks)
11. Insects are the most organized organisms. Explain how they communicate. (15 Marks)