(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

UNIVERSITY EXAMINATIONS

2020/2021 ACADEMIC YEAR

MAIN EXAMINATIONS
(SCHOOL-BASED)
WEBUYE CAMPUS

THIRD YEAR FIRST SEMESTER EXAMINATIONS

FOR T H E DEGREE
OF
BACHELOR OF SCIENCE IN EDUCATION (SCIENCE)

COURSE CODE: SZL 313

COURSE TITLE: ANIMAL GENETICS AND EVOLUTION

DATE: THURSDAY, 21ST APRIL 2022 **TIME: 8:00 – 10:00 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

SECTION A (SHORT ANWSER QUESTIONS, 40 MARKS)

1. Explain briefly the theory of panspermia. (5 marks)

2. Explain the diffrence between inbreeding depression and genetic drift. (5 marks)

3. Outline Mendel's first and second laws of ineritance. (5 marks)

4. List the major theories explaining the origin of life on earth. (5 marks)

5. Explain the role of paleontology in evolutionary studies. (5 marks)

6. Distinguish between any two types of variation an animals. (5 marks)

7. Explain the weakeness of Lamark's theory of use and disuse. (5 marks)

8. Outline five reasons why Hardy–Weinberg equilibrium hardly exists under natural conditions. (5 marks)

SECTION B (ESSAY QUESTIONS, 30 MARKS)

9. Discuss five evidences to support the theory of natural selection. (15 marks)

10. Describe the various types of speciation. (15 marks)

11. Citing relevant examples, describe the practical appllicaton of genetics in evolutionary studies. (15 marks)