



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

P.O. Box 972-60200 – Meru-Kenya

Tel: +254(0) 799 529 958, +254(0) 799 529 959, + 254 (0) 712 524 293,

Website: [info@must.ac.ke](mailto:info@must.ac.ke) Email: [info@must.ac.ke](mailto:info@must.ac.ke)

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## University Examinations 2024/2025

SECOND YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR  
OF SCIENCE IN ENVIRONMENTAL SCIENCE AND NATURAL RESOURCE  
MANAGEMENT

### SZL 3251: ANIMAL ECOLOGY

DATE: JANUARY 2025

TIME: 2 HOURS

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

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#### QUESTION ONE (30 MARKS)

- a) In reference to evolution, explain adaptation citing specific examples (6 marks)
- b) Describe the types of migration in biology (3 marks)
- c) Discuss competition of species in ecology (5 marks)
- d) Explain a food chain in an ecosystem (4 marks)
- e) Explain ecosystem stability and two ways of maintaining it (3 marks)
- f) Briefly describe Island structure (3 marks)
- g) Discuss the influence of predation on community structure (6 marks)

#### QUESTION TWO (20 MARKS)

Citing specific examples explain parasitism (20 marks)

#### QUESTION THREE (20 MARKS)

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Based on trophic organization only, describe the characteristics of a community of species  
(20 marks)

**QUESTION FOUR (20 MARKS)**

Discuss influx of energy in soil  
(20 marks)