

**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

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**University Examinations 2015/2016**

THIRD YEAR, FIRST SEMESTER EXAMINATION FOR BACHELOR OF SCIENCE IN BIOLOGICAL SCIENCES

**SZL 3250/2303: ANIMAL ECOLOGY**

**DATE: NOVEMBER, 2015 TIME:** $2 $**HOURS**

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

**QUESTION ONE – (30 MARKS)**

1. Explain the two major opposing forces operating in the growth and development of every population . (3 Marks)
2. Explain what population life tables are. (3 Marks)
3. Enumerate types of decisions made by a forager. (3 Marks)
4. State four animal defenses against predators. (4 Marks)
5. Determinants and classification of biomes. (6 Marks)
6. Distinguish a generalist from a specialist using an optimal diet model. (6 Marks)
7. Describe mechanisms and impacts of animals dispersal using recent examples of invasive species. (8 Marks)

**QUESTION TWO (20 MARKS)**

Discuss animal adaptations trends in biomes of the earth. (20 Marks)

**QUESTION THREE (20 MARKS)**

Discuss the marginal value theorem and optimal foraging. (20 Marks)

**QUESTION FOUR (20 MARKS)**

Discuss types of herbivory and its effects at plant community level. (2 0 Marks)