MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATIONS 2018/2019 ACADEMIC YEAR FOURTH YEAR SECOND SEMESTER AND SECOND YEAR SECOND SEMESTER

SCHOOL OF TOURISM AND NATURAL RESOURCE MANAGEMENT BSc. WILDLIFE MANAGEMENT AND CONSERVATION

COURSE CODE: WLM 468/WRM2206 COURSE TITLE: COMMUNITY ECOLOGY

DATE: **29TH APRIL 2019** **TIME:** **14:30-16:30 PM**

INSTRUCTIONS TO CANDIDATES

Answer **ALL** questions in section **A** and any other **THREE** in section **B.**

This paper consists of 2 printed pages. Please turn over.

SECTION A: ANSWER ALL QUESTIONS
(25 marks)

1. Describe the following terms using examples **(10 marks)**

i. Community stability
ii. Resource partitioning
iii. Character displacement
iv. Ecological niche
v. Predator-prey oscillation

2. Using a diagram describe predator prey dynamics **(4 Marks)**
3. Using examples differentiate: **(8 Marks)**
   i. Dominant species and key species
   ii. Batesian mimicry and mullerian mimicry
   iii. Parasitism and parasitoidism
   iv. Mutualism and commensalism
4. Name and explain models for community organization **(6 Marks)**

SECTION B: ANSWER ANY THREE QUESTIONS (45 MARKS)

5. Using diagrams, demonstrate your understanding of ecological succession and the types in a community **(15 Marks)**
6. Animals employ various tactics and strategies to avoid predation. Critically illustrate these defense mechanisms **(15 Marks)**
7. Exhaustively describe island biogeography highlighting factors that affect community distribution **(15 Marks)**
8. As an aspiring community ecologist, calculate the Simpsons Diversity Index based on the numbers below. **(15 Marks)**

Species	**Number of individuals**
Speckled pigeon	35
Superb starling	15
Common swift	17
Pied crow	9
Africa wagtail	10
DÁrnaud’s barbet	7
Hadada ibis	9
Sacred ibis	11
Marabou Stock	8
Yellow billed stock	5
Grey heron	6

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