



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR
SECOND YEAR SECOND SEMESTER**

**SCHOOL OF NATURAL RESOURCES, TOURISM
AND HOSPITALITY**

**BACHELOR OF SCIENCE IN WILDLIFE
RESOURCE MANAGEMENT**

**COURSE CODE: WRM 2106-1
COURSE TITLE: INTRODUCTION TO
ECOLOGY**

DATE: 2ND DECEMBER 2022

TIME: 08:30-10:30

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

1. Define the following terms in relation to ecology;
 - I. Trophic levels (1 Marks)
 - II. Food chain (1 Marks)
 - III. Biome (1 Marks)
 - IV. Ecosystem (1 Marks)
 - V. Ecology (1 Marks)
2. Explain the main factors that determine productivity of terrestrial ecosystem (4 Marks)
3. Using an illustration, explain the flow of energy in an ecosystem (5 marks)
4. Describe the nested hierarchy that ecologists use to organize the biological world (6 Marks)

SECTION B: ANSWER ANY THREE QUESTIONS (10 MARKS EACH)

5. Discuss the human impacts on biogeochemical cycles (10 Marks)
6. Using a well-labelled diagram discuss the carbon cycle (10 Marks)
- 7 a) Explain the principal characteristics of r-selected species? (3 Marks)
b) Give some examples of r-selected species? (2 Marks)
c) Explain the characteristics of a k-selected species? (3 Marks)
d) List down examples of k-selected species? (2 Marks)
8. Using a diagram, discuss the ecological pyramids (10 Marks)

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