



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR
SECOND YEAR SECOND SEMESTER**

**SCHOOL OF NATURAL RESOURCE,
ENVIRONMENTAL STUDIES & AGRICULTURE
BACHELOR OF SCIENCE IN WILDLIFE
RESOURCE MANAGEMENT**

**COURSE CODE: WRM 2214-1
COURSE TITLE: POPULATION ECOLOGY**

DATE: 18TH APRIL 2024

TIME : 1100-1300 HRS

INSTRUCTIONS TO CANDIDATES

Answer **All** the Questions in Section A and any **THREE** IN SECTION B
This paper consists of TWO printed pages. Please turn over

SECTION A: Answer all questions (20 marks)

1. Citing specific examples, differentiate between r and k- life history reproductive strategies in living organisms **(4 marks)**
2. Define the following terms; **(3 marks)**
 - i) Population
 - iii) Iteroparity
 - iv) Carrying capacity
3. Explain how density dependent and density independent factors influence population growth of organisms **(4 marks)**
4. Expound the factors that influence population fluctuations **(4 marks)**
5. Using a labelled diagram, explain how prey-predator interaction influence each other population **(5 marks)**

Section B: Answer three (3) questions (30 marks)

6. Discuss the contribution of population ecology studies to management and conservation of wildlife **(10 marks)**
7. With specific examples and illustrations, discuss the different survivorship curves occurring in wild populations **(10 marks)**
8. Discuss the Maximum Sustainable Yield model as applied in wildlife harvesting while indicating its advantages and disadvantages **(10 marks)**
9. The diagram below shows different stages of a population growth of an organism. Discuss what is happening in each of the stages A-F **(10 Marks)**

Number of individuals

