MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR

THIRD YEAR FIRST SEMESTER

SCHOOL OF NATURAL RESOURCE, TOURISM & HOSPITALITY

BACHELOR OF SCIENCE IN WILDLIFE RESOURCE MANAGEMENT

COURSE CODE: WRM 3116-1

COURSE TITLE: FIELD TECHNIQUES IN WILDLIFE MANAGEMENT

DATE: 14/12/2023 **TIME: 1100-1300 HRS**

INSTRUCTIONS TO CANDIDATES

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

SECTION A (20marks)

1. Differentiate between sample and total count (**2 marks**)

2. Explain why there is a need to determine wildlife populations in a given conservation area (**4 marks**)

3. Explain the assumptions made while using total counts to determine a wildlife population (**5 marks**)
4. (a) Define biotelemetry (**2 marks**)
   (b) Explain the importance of data obtained through biotelemetry to the conservation of a species (**3 marks**)

5. Explain the reasons behind wildlife life capture **(4 marks)**

SECTION B (30 MARKS)

6. Discuss three main techniques of sampling plant and animal populations. (1**0 marks**)

7. A wildlife student was requested by the Lecturer to determine the population size of a certain bird species at Impala sanctuary Kisumu using the capture-mark- recapture (CMR) method. During the first visit, he captured a total of 35 birds, marked and released all of them. On the second visit, he captured a total of 65 birds, but out of these only 20 were marked.

a) What are the assumptions for using this method? **(5 marks)**

b) Estimate the total population size of the bird in the sanctuary **(5 marks)**

8. a) Describe five methods used in live capture of wildlife species **(5marks)**
   b) Explain the characteristic of chemical restraints/immobilization drug

   (tranquilizer) that should be used for a given species of wildlife (**5 marks)**

9. Discuss how data obtained from animal and plant census can be applied in

   management and conservation of a given species. **(10 marks)**

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