MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATIONS
2022/2022ACADEMIC 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 WILDLIFE MANAGEMENT

DATE:14TH DECEMBER 2022   TIME: 14:30 – 16:30

INSTRUCTIONS TO CANDIDATES

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

1. Define the following terms as applied in wildlife management :   (**5 marks**)
(a) Total counts
(b) Minimum convex polygon
(c) Species diversity
(d) Relative abundance
(e) Translocation
2. Explain three reasons why we need to count or sample animal populations
(**3 mark**)

3. (a) Explain the advantages and disadvantages of using samples to estimate
wildlife/plants populations.   (**5 marks**)
4. (a) State the importance of aging and sexing wild animal populations.
                                                                (**2 marks**)
    (b) Describe **three (3)** ways you can sex adult mammals.   (**3 marks**)

5. State four assumptions made when using of Mark-recapture method to estimate
population size.   **(2 marks)**

SECTION B (30 MARKS)

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

7. An ecologist randomly selected 5 fixed-width transects each running 500m long and 5m
wide in a sanctuary measuring 60km². Using his feet, he spread all the impala dung piles
found on the transects. He returned the second day and counted 250 dung piles fresh
impala dung piles. Impala are known to have a defecation rate of 5 dung piles/day.

a) What are the assumptions for using this method?   **(3 marks)**

b) Calculate the Impala density   **(3 marks)**

c) Estimate the total population size of impalas in the sanctuary   **(4 marks)**

8. a) Explain the importance of animal tagging/collaring in wildlife studies
                                                                (5marks)
b) Highlight the advantages and disadvantage of animal tagging/collaring **(5 marks)**

9. Discuss how data obtained from animal and plant census can be applied for
        management or conservation of protected area.   **(10 marks)**

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