

CHUKA

UNIVERSITY



UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF
SCIENCE IN WILDLIFE ENTERPRISE AND MANAGEMENT**

WIEM 445: WILDLIFE STOCK ASSESSMENT

STREAMS: BSC WIEM Y4S2

TIME: 2 HOURS

DAY/DATE: TUESDAY 21/09/2021

2.30 P.M. – 4.30 P.M.

INSTRUCTIONS:

- **Answer all questions in section A and any two in section B**
- **Do not write anything on the question paper**

SECTION A (30 MARKS)

1. Briefly explain the following concepts used in wildlife stock assessment
 - a) Maximum sustainable yield. (2 marks)
 - b) Contest competition (2 marks)
 - c) Harvest rate (2 marks)
2. Outline four assumptions that tend to link fishing effort and fishing field. (4 marks)
3. Briefly explain the four main factors that are used to determine population increase or decrease. (4 marks)
4. Briefly describe the three main components of a conservation project conceptual model. (6 marks)
5. You have been consulted to manage Sagana Fish Farm, discuss three main management approaches you can employ. (6 marks)
6. As a manager for Kairini Fish Farm, explain briefly four broad objectives you can adopt in the management of the farm. (4 marks)

SECTION B (40 MARKS)

7. a) using relevant illustrations, describe the behavioral characteristics of exploited wildlife populations. (8 marks)
b) Explain the challenges you would encounter when promoting rearing of wildlife for commercial meat and milk production. (12 marks)
 8. Discuss the major factors determining the Grevy's zebra population dynamics at Ol Jogi Wildlife Conservancy. (20 marks)
 9. Mount Kenya Wildlife Conservancy is seeking a solution to the complex challenges in wildlife resource management. Describe the stepwise process you would follow implementing adaptive management in solving the challenges. (20 marks)
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