

CHUKA



UNIVERSITY

SUPPLEMENTARY / SPECIAL EXAMINATIONS

**FOURTH YEAR EXAMINATIONS FOR THE AWARD OF DEGREE OF BACHELOR
IN WILDLIFE ENTERPRISE AND MANAGEMENT**

WIEM 445 - WILDLIFE STOCK ASSESSMENT

STREAM: WILDLIFE ENTERPRISE AND MANAGEMENT Y4S2

TIME: 2 HOURS

DAY/DATE: MONDAY 16/11/2020

8.30 A.M – 10.30 A.M.

INSTRUCTIONS:

1. Answer **All** questions in **SECTION A** and **Any Two** in **SECTION B**
2. Do not write anything on the question paper

SECTION A (30MARKS)

1. Write short notes on the following concepts (6 Marks)
 - a. Current yield
 - b. Stock status
 - c. Maximum Sustainable yield
2. Using well labeled illustrations, describe the two models used in fish stock assessments. (6 Marks)
3. Outline five assumptions that connect fishing effort to fish yield. (5 Marks)
4. Briefly explain four aspects of a population used in determining whether the population is increasing or declining. (4 Marks)
5. Outline five principles that guide effective fisheries management. (5 Marks)
6. Soysambu Conservancy has consulted you to assess tilapia fish stock at Lake Elementaita. Briefly describe four aspects you will be required to include in the final report. (4 Marks)

SECTION B (40 MARKS)

7. a. Describe the management activities you would undertake at Kingwal Swamp to improve on its productivity. (12 Marks)
- b. Using a well-illustrated diagram, explain the two main growth forms explaining patterns of population change over time. (8 Marks)
8. You have been consulted by KWS to evaluate the distribution of various antelope species in Kenya, discuss the factors you would consider in your study giving relevant examples. (20 Marks)
9. Olpejeta Conservancy is considering removal of wildlife within their land and exclusively keep livestock. As an expert, discuss the challenges and opportunities you would provide the conservancy manager with, in order to consider wildlife ranching over livestock farming. (20 Marks)

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