

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

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

WIEM 425: WILDLIFE NUTRITION

STREAMS: WIEM (Y4S2)

TIME: 2 HOURS

DAY/DATE: FRIDAY 12/4/2024

11.30 A.M. – 1.30 P.M.

INSTRUCTIONS:

- Answer ALL questions in Section A and ANY TWO from Section B
- Do not write on the question paper

SECTION A (30 MARKS)

1. Briefly explain the stages of animal nutrition. (5 marks)
2. Explain five main considerations or guidelines to ensure proper wildlife nutrition. (5 marks)
3. (a) Briefly define the term ‘apparent digestibility.’ (2 marks)
 (b) Suppose a buffalo with a live weight 450 kgs is fed with lucerne with a protein content of 12% (of dry matter.) After defecation the protein content in the fecal material was estimated at 4%. Based on proteins, estimate the apparent digestibility of the feed. (3 marks)
4. Using a suitable diagram, explain the flow of energy from the food taken by an animal. (5 marks)
5. Outline five guidelines for determining the essentiality of a nutrient in animals. (5 marks)
6. (a) Explain the meaning of the term ration. (2 marks)
 (b) Suppose you have been provided with grains (8.9% CP), legumes (36% CP) and alfalfa meal with 5% crude protein. Formulate 100kg animal diet with 14% crude protein using the Pearson Square method. (3 marks)

SECTION B(40 MARKS)

- 7. (a) Discuss the factors influencing vitamin requirements in animals. (8 marks)
 - (b) Discuss the significance of clean water provision to animals. (12 marks)

 - 8. Citing specific examples, discuss the reasons why animals need nutrients. (20 marks)
 - 9. (a) Discuss the importance of analyzing the feed given to animals. (8 marks)
 - (b) Discuss two methods used to study the nutritional value of a given animal food. (12 marks)
-