

CHUKA



UNIVERSITY

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**EXAMINATION FOR THE AWARD OF DIPLOMA IN WILDLIFE MANAGEMENT
ANSC 0221: ENVIRONMENTAL PHYSIOLOGY AND ETHOLOGY**

STREAMS: DIP WIEM

TIME: 2 HOURS

DAY/DATE: THURSDAY 07/08/2025

11.30A.M. –1.30 P.M

**INSTRUCTIONS: ANSWER ALL QUESTIONS IN SECTION A AND ANY TWO IN
SECTION B**

SECTION A (30 Marks)

1. List and explain 4 heat exchange mechanisms (8 Marks)
2. Distinguish natural and learned behaviours (2 Marks)
3. Briefly explain 5 reasons why sometimes animals can be aggressive (5 Marks)
4. Explain the importance of light to poultry reproduction (5 Marks)
5. Outline 5 reasons why air circulation is important in animal enclosures (5 Marks)
6. Outline five different types of behavioural anomalies among confined wild animals (5 Marks)

SECTION B (40 Marks)

7. A case is reported of a herder leading a herd of antelopes to a watering point 3 Km away in Mandera in January the year 2025. On the way some goats developed following signs; hypersalivation, increased breathing rates, weakness. Some collapsed and could not continue with the journey.
 - a. What could be the problem facing these antelopes? (1 Mark)
 - b. How may you assist the antelopes immediately and in the long-run to ensure the problem is addressed? (9 Marks)
 - c. Discuss the 'impacts of wildlife on and the environment' focusing on the One Health Concept (10 Marks)

8. a. Following a rabies outbreak, a suggestion to control the population of wild carnivores was considered through mass poisoning. After an year, the population of these carnivore doubled.
- a. Name and explain this phenomena (5 Marks)
 - b. Explain the reasons that cause animals the preffer certain habitats (10 Marks)
 - c. Is it possible to permanently relocate wild carnivores? Support your answer. (5 Marks)
9. a. A guide dog is able to ascend and descend Mt Kenya due to various acclimatization mechanisms. Discuss the mechanisms involved (8 Marks)
- b. Explain how “stress” is evaluated and measured in animals (8 Marks)
 - c. Discuss the various heat exchange mechanisms between animals and the environment (4 Marks)
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