

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

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

WIEM 423: ENVIRONMENTAL PHYSIOLOGY

STREAMS: BSC WIEM Y4S2

TIME: 2 HOURS

DAY/DATE: MONDAY 20/09/2021

2.30 P.M – 4.30 P.M

INSTRUCTIONS

■ Answer all questions in section A and other two in section B

■ Do not write anything on the question paper

SECTION A (30 MARKS)

1. Explain three ways through which animals respond to environmental change. [6 marks]
2. Describe how behavioral responses facilitate adaptation to the environment. [6 marks]
3. Highlight two ways through which altered behavior can affect species interaction.
[4 marks]

4. Describe three different types of adaptations by wildlife. [6 marks]
5. Explain four environmental factors that affect thermal regulation in animals. [4 Marks]
6. Briefly describe the animal response strategies to heat stress in an ecosystem. [4 marks]

SECTION B (40 MARKS)

7. Discuss the relevance of environmental physiology knowledge in management of wildlife in protected areas. [20 marks]

8. Discuss the contribution of physical and morphological adaptations to the spatial distribution of wildlife in savanna ecosystems. [20 marks]
 9. Discuss hibernation of mammals as an integrated environmental physiological process. [20 marks]
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