

**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: WEDNESDAY 08/04/2020**

**11.30 A.M. – 1.30 P.M.**

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**INSTRUCTIONS:**

- Answer ALL questions in section A and any two in section B.
- Do not write on question paper.

**SECTION A: 30 MARKS**

1. Define the following terms. (6 marks)
  - (a) Behaviour Plasticity
  - (b) Environmental physiology
  - (c) Habituation
2. Explain three ways through which animals respond to environmental change. (6 marks)
3. Highlight four physiological systems in wild animals. (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: 20 MARKS (ANSWER ONLY TWO QUESTIONS)**

7. Discuss the contribution of physiological and morphological adaptations to the spatial distribution of wildlife in savanna ecosystems. (20 marks)
  8. Discuss the relevance of environmental physiology knowledge in wildlife management. (20 marks)
  9. Discuss hibernation of mammals as an integrated environmental physiological process. (20 marks)
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