

CHUKA



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

NARE 444: MANAGEMENT OF AQUATIC ECOSYSTEMS

STREAMS: BECO Y4S2 BSC WIEM Y4S2

TIME: 2 HOURS

DAY/DATE: MONDAY 08/04/2024

11.30 A.M – 1.30 P.M.

INSTRUCTIONS:

- Answer ALL in SECTION A and any other TWO in SECTION B.
- Do NOT write anything on the question paper.

SECTION A (30 MARKS)

- Q1. Briefly describe the factors that limited the productivity of aquatic habitats. (5 marks)
- Q2. Write short notes on the following vertical zonation in lake ecosystems.
- (a) Thermal stratification (3 marks)
 - (b) Sunlight stratification (3 marks)
 - (c) Oxygen stratification (3 marks)
- Q3. Briefly describe the function of wetlands in climate change mitigation and biodiversity conservation. (6 marks)
- Q4. Briefly describe the role of two institutions in the management of fresh water ecosystems in Kenya. (6 marks)
- Q5. Describe four categories of ecosystem service derived from aquatic ecosystems in Kenya. (4 marks)

SECTION B (30 MARKS)

- Q6. With appropriate examples discuss the threats to aquatic ecosystems in Kenya. (20 marks)

- Q7. Using examples, discuss the market based instruments in the threats to aquatic ecosystems. (20 marks)
- Q8. Discuss the role of indigenous and local communities in conservation and governance of aquatic resources in Kenya. (20 marks)
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