



**KISII UNIVERSITY**  
**UNIVERSITY EXAMINATIONS**  
**SECOND YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF**  
**BACHELOR OF SCIENCE IN PUBLIC HEALTH**  
**SECOND SEMESTER 2022/2023**  
**[JAN – APRIL, 2023]**

**PHES 205: ECOLOGY AND HEALTH**

**STREAM: Y2 S2**

**TIME: 3 HOURS**

**DAY: WEDNESDAY, 2:00 – 5:00 P.M.**

**DATE: 29/03/2023**

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**INSTRUCTIONS**

- 1. Do not write anything on this question paper.**
- 2. Attempt ALL the questions in section A (Compulsory) and any other TWO questions in section B.**

**SECTION A ATTEMPT ALL QUESTIONS**

1. Define the following terms as used in ecology (4 marks)
  - i) Niche
  - ii) Nitrogen fixation
  - iii) Ecosystem
  - iv) Biogeochemical cycle
2. Briefly explain **TWO** categories of ecosystem (4 marks)
3. Highlight functions of an ecosystem (4 marks)
4. Outline two types of food chains (4 marks)
5. What are the roles of decomposers (4 marks)
6. Highlight process of nitrogen fixation (4 marks)
7. Briefly explain why carbon cycle is most important in ecology (4 marks)
8. Outline causes of ecological succession (4 marks)
9. Highlight manners in which ecological stability can be **attained** (4 marks)

10. Highlight processes of nitrogen fixation (4 marks)

**SECTION B ATTEMPT ANY TWO QUESTIONS**

**11.i)** Using a suitable diagram explain the hydrological cycle (7 marks)

**ii)** What are the health impacts of polluting water bodies?

(8 marks)

12. Explain principles of ecosystem (15 marks)

13.i) describe the classification of aquatic ecology (7 marks)

ii) What are the effects of parasites to the host? (4 marks)