

**UNIVERSITY EXAMINATIONS****FIRST SEMESTER 2025/2026 ACADEMIC YEAR****FIRST YEAR EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCE****ENSC 111: INTRODUCTION TO ENVIRONMENTAL SCIENCE*****STREAM: R******TIME: 2 HRS******DAY: TUESDAY [14.30 -16.30 P.M]******DATE: 03/02/2026*****THIS QUESTION PAPER CONSISTS OF TWO (2) PAGES****PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.**

SECTION A: ANSWER ALL THE QUESTIONS (30 MARKS)**QUESTION ONE (30 MARKS)**

- a) Define the following terms as used in environmental science
- i) Environment (2 Marks)
 - ii) Ecological system (2 Marks)
- b) State and briefly explain the levels of biodiversity (6 marks)
- c) Differentiate the following terms.
- i) Biome and biosphere (2 Marks)
 - ii) Birth rate and death rate (2 Marks)
 - iii) Food chain and food web (2 Marks)
 - iv) Threatened and endangered species (2 Marks)
 - v) Primary and secondary succession (2 Marks)
- d) Write short notes on the adaptation of herbivores in savannah grasslands (5 Marks)
- e) Discuss the problems facing wetland management in Kenya (5 Marks)

SECTION B: ANSWER ONLY TWO QUESTIONS**QUESTION TWO (20 MARKS)**

- a) Outline the effects of ozone layer depletion (10 Marks)
- b) Discuss the environmental and the social consequences of rising population in developing countries (10 Marks)

QUESTION THREE (20 MARKS)

- a) List **five** principles of sustainable development (5 Marks)
- b) Discuss the constraints of sustainable development in sub-Saharan Africa (15 Marks)

QUESTION FOUR (20 MARKS)

- a) State and briefly explain the three major processes that drives the hydrological cycle (10 marks)
- b) Discuss the anthropogenic impact on the hydrological cycle (10 Marks)

QUESTION FIVE (20 MARKS)

- a). Explain the principle of 3R's in solid waste management (6 Marks)
- b). Discuss the challenges facing solid waste management in Kenya (14 Marks)