

LAIKIPIA



GEOG 125

UNIVERSITY

## UNIVERSITY EXAMINATIONS

**SECOND SEMESTER 2023/2024 ACADEMIC YEAR**

**FIRST YEAR EXAMINATION FOR THE DEGREE  
BACHELOR OF SCIENCE IN GEOGRAPHY**

**GEOG 125: INTRODUCTION TO BIOGEOGRAPHY**

***STREAM: R***

***TIME: 2 HRS***

***DAY: MONDAY [11.30A.M – 1.30 P.M]***

***DATE: 15/04/2024***

**THIS QUESTION PAPER CONSISTS OF TWO (2) PAGES**

**PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.**



**INSTRUCTIONS: ANSWER QUESTIONS ONE AND ANY OTHER TWO QUESTIONS**

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**QUESTION ONE (30 MARKS)**

- i. Differentiate between the following concepts;
  - a) Ecology and biogeography **(4 Marks)**
  - b) Functional and evolutionary biogeography **(4 Marks)**
  - c) Negative and positive spatial autocorrelation **(4 Marks)**
- ii. Write down the equation of the species – area relationship **(2 Marks)**
- iii. Giving relevant example, briefly explain how mutualism influences species distribution **(3 Marks)**
- iv. Using the mitigation hierarchy, clearly illustrate the net positives and net negatives as used in biodiversity baseline studies **(4 Marks)**
- v. Citing examples, describe **THREE** different patterns of biodiversity according to Charles Robert Darwin **(3 Marks)**
- vi. Briefly explain the equilibrium theory of island biogeography **(3 Marks)**
- vii. Give **THREE** characteristics of chaparral biomes **(3 Marks)**

**QUESTION TWO**

Elucidate on **FIVE** importance(s) of biogeography in understanding biodiversity and ecosystems **(20 Marks)**

**QUESTION THREE**

Identify and describe **FIVE** ways through which current changing climate can affect species distribution **(20 Marks)**

**QUESTION FOUR**

Identify and expound on **FIVE** geological events that have shaped the distribution of species **(20 Marks)**

**QUESTION FIVE**

Discuss **FIVE** conservation challenges posed by invasive species along with **FIVE** strategies to address each one of them **(20 Marks)**