



UNIVERSITY EXAMINATIONS

**FIRST YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF
BACHELOR OF ENVIRONMENTAL SCIENCE, NATURAL RESOURCE
MANAGEMENT, AND AQUATIC SCIENCE
SECOND SEMESTER 2023/2024
[JAN - APRIL, 2024]**

ENSC 102: INTRODUCTION TO PHYSICAL ENVIRONMENT

STREAM: Y1 S2

TIME: 2 HOURS

DAY: WEDNESDAY, 9:00 - 11:00 A.M.

DATE: 03/04/2024

INSTRUCTIONS

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

SECTION A (40 MARKS)

QUESTION ONE

- Define physical environment (2 marks)
- Explain five elements of physical environment (10 marks)
- Explain the importance of the following atmospheric gases (2 marks)
 - Oxygen (2 marks)
 - Carbon (iv) oxide (2 marks)
 - Nitrogen (2 marks)
- Explain the two broad classification of geomorphological processes (4 marks)
- Explain five differences between weather and climate (5 marks)
- Differentiate between climate change and climate variability (2 marks)
- Explain three anthropogenic causes of climate change (6 marks)
- Define pressure gradient (1 mark)

- i) Explain the effect of topography on pressure gradient (4 marks)

SECTION B (40 MARKS)

QUESTION TWO

- a) Describe the structure of the atmosphere based on temperature variations (12 marks)
- b) Explain the meaning of the following terms
- i. Environmental lapse rate (1 mark)
 - ii. Dry adiabatic lapse rate (1 mark)
 - iii. Wet adiabatic lapse rate (1 mark)

QUESTION THREE

Discuss the various forms of degradation as used in geomorphology (15 marks)

QUESTION FOUR

Discuss the various laws that influence atmospheric and oceanic air circulation (15 marks)