



GWANDA STATE UNIVERSITY

FACULTY OF NATURAL RESOURCES MANAGEMENT AND AGRICULTURE

DEPARTMENT OF GEOGRAPHY AND ENVIRONMENTAL SCIENCE

METEOROLOGY AND CLIMATOLOGY

NGE 1204

FINAL EXAMINATION PAPER

JUNE 2025

This examination paper consists of 2 pages

Time Allowed: 3 hours

INSTRUCTIONS

1. Answer any **four** questions.
2. Each question carries 25 marks.
3. Credit will be given to answers that are clear, illustrated, concise, and grammatically well-constructed.

1a Explain the composition of the earth's atmosphere. (5)

b. With the aid of a diagram, describe the structure of the atmosphere. (20)

2. Examine the Koppen's classification of climate. [25]

3. Understanding weather patterns is essential for promoting safety, economic and social well-being and protecting the environment. Elaborate. [25]

4a. Outline the impacts of ENSO (El-Nino Southern Oscillation) [5]

b. Examine the international agreements on policy adopted to mitigate the impacts of Climate Change. [20]

5. Using clearly labelled diagrams, explain the global circulation of air [25]

6. Assess the causes of climate change and its impacts on global food security. [25]

END OF PAPER