



GWANDA STATE UNIVERSITY

**FACULTY OF NATURAL RESOURCES MANAGEMENT AND AGRICULTURE
DEPARTMENT OF GEOGRAPHY AND ENVIRONMENTAL SCIENCE**

WEATHER AND CLIMATE

NGE1101

Final Examination Paper

December 2024

This examination paper consists of 2 pages

Time Allowed: 3 hours

Examiner's Name: Mr. S. Zhou

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.

1. Discuss any **three** anthropogenic activities that cause climate change. [25]
2. Examine the influence of the Inter-Tropical Convergence Zone (ITCZ) on the climate of Africa. [25]
3. Investigate the various factors that account for the spatial and temporal distribution of rainfall in Zimbabwe. [25]
4. a. Differentiate warm front from cold front. [10]
b. Discuss the life cycle of a mid-latitude depression and the weather associated with its passage. [15]
5. a. With the aid of an annotated diagram, describe the layers of the atmosphere. [15]
b. Explain the temperature variations in each of the layers outlined in 5(a). [10]
6. With the aid of diagrams, differentiate the Saturated Adiabatic Lapse Rate (SALR) from the Dry Adiabatic Lapse Rate (DALR). [25]

THE END!!!