



GWANDA STATE UNIVERSITY
FACULTY OF ENGINEERING AND ENVIRONMENT
DEPARTMENT OF GEOGRAPHY AND ENVIRONMENTAL SCIENCE

METEOROLOGY AND CLIMATOLOGY

LES1204

Final Examination Paper

November 2023

This examination paper consists of 2 pages.

Time Allowed: 3 hours

Examiner's Name: Dr. E. Makwara

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 the origin, movement and characteristics of air masses and explain their role in influencing world climates. [25]
2. 'Precipitation follows the sun.' Assess this statement. [25]
3. Analyse the mechanism and significance of the tricellular meridional circulation of the atmosphere. [25]
4. 'Contemporary global climate change is an anthropogenic phenomenon.' Discuss. [25]
5. "The difference between the environmental lapse rate and the dry adiabatic process creates a number of environmentally significant atmospheric phenomena." (Kleenman, G., 1995:12). Discuss. [25]
6. Examine the drawbacks of Koppen's classification of climates and show how Thornthwaite attempted to overcome these limitations. [25]

THE END