

GWANDA STATE UNIVERSITY



FACULTY OF LIFE SCIENCES

DEPARTMENT OF ANIMAL SCIENCES

BACHELOR OF SCIENCE HONOURS DEGREE IN ANIMAL SCIENCE

Agriculture, the Environment and Climate change

LAS 4113

First Semester Final main Examination Paper

November 2019

This examination paper consists of 3 pages

Time Allowed: 3 hours
Total Marks: 100
Special Requirements: None
Examiner's Name: Ms L. Sebele

INSTRUCTIONS

1. Answer **all** questions in Section A
2. Answer **only two** questions in Section B

MARK ALLOCATION

QUESTION	MARKS
SECTION A	60
SECTION B	40
TOTAL ATTAINABLE MARKS	100

Copyright: Gwanda State University

SECTION A: ANSWER ALL QUESTIONS IN THIS SECTION

QUESTION 1

- a. Reducing Emissions from Deforestation and forest Degradation REDD projects often do not succeed in conserving forest. Why? [5]
- b. Describe a Convention on Biological Diversity Protocol which addresses issues of access and benefit sharing. [5]
- c. What are the major producers of the two most common greenhouse gases? [4]
- d. Outline the **three** main categories of climate change impacts on human health. [6]

QUESTION 2

- a. Climate change adaptation is essential to the survival of subsistence farmers. List ways in which they have been able to do this. [6]
- a. Agriculture is beneficial to the environment. Support this statement. [5]
- b. What effects has climate change had on fisheries? [6]
- c. Resistance development threatens the advances of agricultural development. What are the proposed strategies for delaying resistance development? [3]

QUESTION 3

- a. Why was the United Nations Framework Convention on Climate Change developed? [10]
- b. Describe in detail a protocol which ensures the safe handling, transport and use of Living Modified Organisms (LMOs) [8]

SECTION B: Answer only **TWO** questions in this section

QUESTION 4

- a. Describe the effects of climate change on livestock production. **[8]**

- b. According to the United Nations Development Programme (UNDP), climate change affects men and women differently. Expand on this statement. **[12]**

QUESTION 5

- a. Describe in detail any five goals of the Zimbabwe Climate Policy. **[10]**

- b. Explain in brief the crop adaptation strategies to climate change employed in Zimbabwe. **10]**

QUESTION 6

- a. Agriculture has had a negative effect of the environment. Discuss **[12]**

- b. Irrigation has greatly influenced the evolution of agriculture. Briefly describe economic and social impacts of irrigation. **[8]**

QUESTION 7

- a. Explain the relationship that agricultural pollutants have with the environment and climate change. **[10]**

- b. Outline the components of biodiversity that support ecosystem services upon which agriculture is based. **[10]**

END OF EXAMINATION