GWANDA STATE UNIVERSITY

FACULTY OF NATURAL RESOURCES MANAGEMENT AND AGRICULTURE

CROP SCIENCE DEPARTMENT

BACHELOR OF SCIENCE HONOURS DEGREE IN CROP SCIENCE

Farming Systems

LCS 4211

Second Semester Final Examination Paper

June 2023

This examination paper consists of 3 pages

Time Allowed:	3 Hours
Total Marks:	100
Special Requirements:	None
Examiner's Name:	R. Mapuranga

INSTRUCTIONS

1. Answer any **five (5)** questions
2. Start each question on a new page

MARK ALLOCATION

QUESTION	MARKS
EACH QUESTION	20
TOTAL ATTAINABLE MARKS	100

1. (a) Define the term farming system [2]

   (b) Explain the meaning of the following terms: inputs, processes, outputs, and feedback. Give at least two examples in each case [12]

   (c) Compare and contrast specialised farming system (SFS) and integrated farming system (IFS) [6]

2. (a) Using adequate examples, prove that climatic factors influence farming systems chosen by farmers in different agroecological regions [5]

   (b) Discuss any FIVE (5) socio-economic determinants of farming system types [15]

3. (a) Define the term agro-ecological region [2]

   (b) Outline the characteristics of the different agro-ecological regions of Zimbabwe and explain how they influence farming systems which can be adopted by farmers in those ecological regions [18]

4. (a) Outline the characteristics of small-scale farming systems in Zimbabwe [14]

   (b) Recommend strategies to mitigate the effects of aridness in Southwestern Zimbabwe to improve crop productivity [6]

5. (a) List any five types of environmental assessments [5]

   (b) Using a well labelled flow chart, illustrate the Environmental Impact Assessment (EIA) process, indicating all the key stages involved [10]

   (c) Discuss the challenges faced by organizations in implementing Environmental Impact Assessment (EIA) in Zimbabwe [5]

6. (a) State any FIVE (5) types of crop models used in agriculture [5]

   (b) Discuss the advantages of using crop models in agriculture [15]

7. (a) Define the following terms:

       i. Agroforestry [2]

       ii. Agro-silviculture [2]

   (b) Prepare a report on the benefits of incorporating agroforestry in the semi-arid regions of Zimbabwe [16]

End of Examination Paper