

GWANDA STATE UNIVERSITY



DEPARTMENT OF CROP SCIENCES

BACHELOR OF SCIENCE HONOURS DEGREE IN ANIMAL SCIENCE

Principles of Crop Production

LCS2108

First Semester Examination Paper

June 2020

This examination paper consists of 3 pages

Time Allowed: 3 hours
Total Marks: 100
Special Requirements: None
Examiner's Name: H. TIBUGARI

INSTRUCTIONS

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

MARK ALLOCATION

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

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SECTION A: Answer ALL questions in Section A

Question 1

- a. Examine the importance of the following practices of crop production:
 - i. Seedbed preparation [2]
 - ii. Knapsack sprayer calibration [2]
 - iii. Irrigation scheduling [2]
 - iv. Scouting [2]
 - v. Soil testing [2]
 - vi. Pesticide rotation [2]
- b. Assume a field is planted to sunflower at a plant spacing of 20 cm and row spacing of 60 cm. Calculate plant population (plants ha⁻¹). [8]
- c. Explain the tools that can be used to empower smallholder African farmers to commercialize crop production. [8]
- d. Outline how policies can affect crop production and food security. [8]
- e. Examine the possible causes of the current maize meal shortage in Zimbabwe, highlighting possible solutions. [24]

SECTION B: Answer TWO questions in Section B

2. Discuss key technologies that can improve efficiency and sustainability of crop production in arid areas. [20]
3. a. Explain the important factors that should be managed for successful maize production in Zimbabwe. [20]
4. Examine modern glasshouse tomato production under the headings:
 - i. Transplanting, [2]
 - ii. Irrigation and fertiliser management, [5]
 - iii. Pollination, [3]
 - iv. Trellising, [5]
 - v. Pruning, [5]
5. Examine the importance of Information Communication Technologies in crop production. [20]

END OF EXAMINATION