



**GWANDA STATE UNIVERSITY**  
**FACULTY OF LIFE SCIENCES**  
**DEPARTMENT OF CROP SCIENCE**  
**BACHELOR OF SCIENCE HONOURS DEGREE IN ANIMAL SCIENCE**  
**LCS 2108 PRINCIPLES OF CROP PRODUCTION**  
**FIRST SEMESTER FINAL EXAMINATION PAPER**

**NOVEMBER 2019**

This examination paper consists of 3 pages, inclusive of cover page

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

**INSTRUCTIONS**

1. Answer **ALL** questions in Section A
2. Answer **ONLY THREE** questions in Section B

**MARK ALLOCATION**

<b>QUESTION</b>	<b>MARKS</b>
SECTION A	40
SECTION B	60
<b>TOTAL ATTAINABLE MARKS</b>	<b>100</b>

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## SECTION A: ANSWER ALL QUESTIONS

[40 marks]

### Question 1

- a. Explain the importance of the following crop production practices:
- i. Variety selection (2)
  - ii. Hardening of seedlings, (2)
  - iii. Scouting, (2)
  - iv. Knapsack sprayer calibration (4)
  - v. Irrigation scheduling (3)
- b. Examine the merits and demerits of the following weed management methods:
- i. Hand weeding (5)
  - ii. Chemical weed control (5)
  - iii. Mechanical weed control (5)
- c. Using examples, explain the following cropping systems:
- i. Intercropping (4)
  - ii. Relay cropping (4)
  - iii. Monocropping (4)

## SECTION B

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Answer any three questions. Each question carries 20 marks.

### Question 2

Identify any one field crop and examine its production under the headings:

- i. Ecology and growing conditions (4)
- ii. Land preparation and crop husbandry (6)
- iii. Harvesting and postharvest handling (6)
- iv. Utilisation (4)

### Question 3

Examine how climate change is affecting crop production in Southern Africa.(20)

### Question 4

Explain the production of any one forage crop under the headings:

- a. Climatic and soil requirements, (3)
- b. General agronomic practices, (8)
- c. Pests and diseases, (5)
- d. Silage and hay-making. (4)

**Question 5**

Examine how Information and Communication Technology can improve crop production in Africa. (20)

**Question 6**

Identify any one plantation crop and explain its production under the headings:

- a. Ecology and growing conditions (4)
- b. Land preparation and crop husbandry (6)
- c. Harvesting and postharvest handling (6)
- d. Processing and utilisation (4)