

GWANDA STATE UNIVERSITY



FACULTY OF LIFE SCIENCES

DEPARTMENT OF CROP SCIENCE

BACHELOR OF SCIENCE (HONOURS) DEGREE IN CROP SCIENCE.

LCS2211 HORTICULTURE

SECOND SEMESTER FINAL MAIN EXAMINATION PAPER

AUGUST 2021

This examination paper consists of 2 pages

Time Allowed: 3 hours

Total Marks: 100

Special Requirements: None

**INSTRUCTIONS**

1. Answer all questions in Section A, and any three in Section B
2. Section A carries 40 marks and Section B carries 60 marks

**SECTION A (40 MARKS) ANSWER ALL QUESTIONS**

1. a. Draw up a planting calendar for a Zimbabwean farm specializing in the following crops:
  - i. Butternut [1]
  - ii. Cabbage [1]
  - iii. Green beans [1]
  - iv. Green mealies [1]
  - v. Onion [1]
  - vi. Peas [1]
  - vii. Potato [1]
  - viii. Squash [1]
  - ix. Water melon [1]
  - x. Tomato [1]
- b. Explain the biological factors that are involved in deterioration of harvested horticultural crops. [20]
- c. Explain the importance of the following field management practices in tomato:
  - i. Staking and training [5]
  - ii. Fruit thinning [5]

**SECTION B (60 MARKS) ANSWER ANY THREE QUESTIONS**

2. Explain the production of any one crop either the Solanaceae or Cruciferae family, from land preparation to harvesting: [20]
3. With the aid of a flow diagram, explain how citrus trees are propagated. [20]
4. Examine spider plant (*Cleome gynandra*) production under the headings:
  - i. Seeds [2]
  - ii. Land preparation and fertiliser application [4]
  - iii. Sowing and transplanting [3]
  - iv. General crop management [4]
  - v. Irrigation [3]
  - vi. Harvesting and utilisation [4]
5. Explain the environmental factors that should be monitored for successful greenhouse crop production. [20]
6. Describe the major causes of the following disorders, indicating how they can be prevented:
  - (a) English cucumber abortion. [5]
  - (b) Rain check in tomato [5]
  - (c) Brown core and hollow heart in Irish potato [5]
  - (d) Bitter pit in apples [5]

End of Examination Paper