



**GWANDA STATE UNIVERSITY**  
**FACULTY OF LIFE SCIENCES**  
**DEPARTMENT OF CROP SCIENCE**  
**BACHELOR OF SCIENCE HONOURS DEGREE IN CROP SCIENCE**  
**NHC1101 INTRODUCTION TO HORTICULTURE**  
**FIRST SEMESTER EXAMINATION**  
**JUNE 2023**

**NHC 1101 INTRODUCTION TO HORTICULTURE**

**Time Allowed: 3 hours**

**Total Marks: 100**

**Special Requirements: None**

**Examiner's Name: Dr. P. Zanamwe**

**INSTRUCTIONS**

1. Answer **all** questions in Section A
2. Answer **TWO (2)** questions in Section B

**MARK ALLOCATION**

QUASTION	MARKS
SECTION A	60
SECTIONB	40
TOTAL ATTAINABLE MARKS	100

## SECTION A: ANSWER ALL QUESTIONS IN THIS SECTION

### QUESTION ONE

- a. State FIVE (5) characteristics of horticultural plants (5 Marks).
- b. Give TWO (2) roles of the seed industry and THREE (3) roles of the nursery industry in modern horticulture. (5 Marks).
- c. Discuss, giving specific examples, FIVE (5) benefits of horticulture in Zimbabwe (10Marks).

### QUESTION TWO

- a. Explain the term 'binominal nomenclature' and give an example. (3 Marks)
- b. Give TWO (2) reasons why scientific nomenclature is better compared to operational naming systems (2 Marks)
- c. Distinguish warm-season crops from cool-season crops and give TWO (2) specific examples (6 Marks)
- d) Give the importance of the members of following *Kingdoms* in production horticulture
  - i. *Animalia* (1 Mark)
  - ii. *Monera* (1 Mark)
  - iii. *Protoctista* (1 Mark)
  - iv. *Fungi* (1 Mark)

### QUESTION THREE

- a. Describe, giving examples, epigeal and hypogeal germination. (10 Marks)
- b. State and explain any FIVE (5) uses of grafting in horticulture. (10 Marks)

## **SECTION B: ANSWER ANY TWO QUESTIONS IN THIS SECTION**

### **QUESTION FOUR**

Discuss the following human assisted layering propagation methods giving specific examples.

- i. Simple Layering (4 Marks)
- ii. Serpentine Layering (4 Marks)
- iii. Trench Layering (4 Marks)
- iv. Mound Layering (4 Marks)
- v. Air Layering ( Marks)

### **QUESTION FIVE**

State and explain any FIVE (5) ways horticulturalists protect field-grown plants against frost (20 Marks)

### **QUESTION SIX**

Discuss the following dormancy breaking methods

- i. Mechanical (4 Marks)
- ii. Temperature (4 Marks)
- iii. Light (4 Marks)
- iv. Acid treatment (4 Marks)
- v. Leaching with water (4 Marks)