



1st SEM 2016/17

PAGE 1 OF 3

UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

PROGRAMME:

**BACHELOR OF SCIENCE IN HORTICULTURE YEAR
I**

COURSE CODE:

HRT101

TITLE OF PAPER:

PRINCIPLES OF HORTICULTURE

TIME ALLOWED:

TWO [2] HOURS

INSTRUCTIONS:

ANSWER FOUR (4) QUESTIONS.

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS

**DO NOT OPEN UNTIL PERMISSION HAS BEEN GRANTED BY THE
INVIGILATOR**

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS**QUESTION 1**

- a) Discuss the importance of water in horticultural crops production (16 marks)
- b) What are the negative aspects of rainfall in horticultural production? (4 marks)
- c) Discuss the significance of wind in horticultural production (5 marks)

[25 MARKS]**QUESTION 2**

Describe the sectors of horticultural production following these guidelines:

- (i) Protected cropping (5 marks)
- (ii) Nursery stock (5 marks)
- (iii) Landscaping (5 marks)
- (iv) Professional gardening (5 marks)
- (v) Garden centres (5 marks)

[25 MARKS]**QUESTION 3**

Describe the symptoms of mineral nutrient toxicity in horticultural plants by completing the table below: (25 marks)

Element		Toxicity symptoms
Nitrogen	(3 marks)	
Phosphorus	(3 marks)	
Potassium	(2 marks)	
Sulphur	(2 marks)	
Calcium	(5 marks)	
Manganese	(3 marks)	
Chlorine	(3 marks)	
Boron	(4 marks)	

[25 MARKS]

QUESTION 4

- (a) Define a phytohormone (8 marks)
- (b) Describe briefly the significance of the following phytohormones in plant growth and development:
 - (i) Cytokinins (5 marks)
 - (ii) Auxins (5 marks)
 - (iii) Brassinosteroids (3 marks)
 - (iv) Strigalactones (4 marks)

[25 MARKS]

QUESTION 5

Describe the following terminologies used in horticulture:

- (a) Monoecious (3 marks)
- (b) Sympodial (7 marks)
- (c) Staminate (3 marks)
- (d) Receptacle (6 marks)
- (e) Callus (6 marks)

[25 MARKS]