



1st SEM 2015/2016

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

**PROGRAMME: BACHELOR OF SCIENCE IN HORTICULTURE YEAR
I AND BACHELOR OF SCIENCE IN HORTICULTURE
YEAR II**

COURSE CODE: HRT101 / HORT 201

TITLE OF PAPER: PRINCIPLES OF HORTICULTURE

TIME ALLOWED: TWO [2] HOURS

INSTRUCTIONS: ANSWER 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 classification of horticultural crops following the criteria:

(i) season of growth. (5 marks)

(ii) duration of growth. (5 marks)

(iii) harvested product. (5 marks)

(b) List ten (10) disciplines of the horticulture profession. (10 marks)

[25 MARKS]

QUESTION 2

a) Discuss the significance of light in horticultural crop production. (11 marks)

b) Compare photosynthesis and respiration by completing the following table:

	Photosynthesis	Respiration
Sugars		
Energy		
Site		
Oxygen		
Water		
Carbon dioxide		
Light		

(14 marks)

[25 MARKS]

QUESTION 3

a) What are the characteristics of good seed? (5 marks)

b) Describe the germination process in maize (*Zea mays* L). (10 marks)

c) Describe the germination process in lettuce (*Lactuca sativa* L). (10 marks)

[25 MARKS]

QUESTION 4

- a) What are the benefits of preparing your own liquid fertilizer? (9 marks)
 b) Provide the approximate nutrient composition of selected manures by completing the following table:

Source	N (%)	P (%)	K (%)	C:N Ratio
Chicken				
Duck				
Pig				
Cattle				

(16 marks)

[25 MARKS]**QUESTION 5**

- (a) Define companion planting (5 marks)
 (b) Discuss the benefits of companion planting following these guidelines:
- (i) Hedged investment (2 marks)
 (ii) Increased level interaction (3 marks)
 (iii) Protective shelter (2 marks)
 (iv) Pest suppression (2 marks)
 (v) Predator recruitment and positive hosting (8 marks)
 (vi) Trap cropping (3 marks)

[25 MARKS]