



2<sup>nd</sup> SEMESTER 2013/2014

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

PROGRAMME:                    BACHELOR OF SCIENCE IN HORTICULTURE  
YEAR III.

COURSE CODE:                HORT 302

TITLE OF PAPER:             GREENHOUSE MANAGEMENT AND  
UTILIZATION

TIME ALLOWED:              TWO (2) HOURS

INSTRUCTION:                ANSWER ANY FOUR (4) QUESTIONS

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BY THE CHIEF INVIGILATOR

**ANSWER ANY FOUR (4) QUESTIONS**

**Question 1**

(a) List the physiological effects of temperature on greenhouse crop production [9 marks]

(b) Discuss the characteristics of the following greenhouse covering materials:

(i) Glass [8 marks]

(ii) Polythene film plastic [8 marks]

[25 marks]

**Question 2**

Discuss the operations and management of an Environment Controlled Computers (ECC) greenhouse [25 marks]

**Question 3**

Describe the maintenance operations you will employ as the manager of LINDOKUHLE SIXTEEN GREENHOUSE Inc. Swaziland [25 marks]

**Question 4**

What factors will you consider before choosing an area for a greenhouse enterprise? [25 marks]

**Question 5**

You have a 1:205 injector in a greenhouse and want to use potassium nitrate (13%N-0%P<sub>2</sub>O<sub>5</sub>-44%K<sub>2</sub>O) and calcium nitrate (15.5%N-0%P<sub>2</sub>O<sub>5</sub>-0%K<sub>2</sub>O) to supply 255 PPM of N and K with each watering. How many **grams** of each fertilizer would you weigh out to make **1-liter** of concentrate? (Given %K and %P equals 1.2 and 2.3 of K<sub>2</sub>O and P<sub>2</sub>O<sub>5</sub> respectively, and 10 as the conversion constant C).

[25 Marks]