



2nd SEMESTER 2012/2013

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

PROGRAMME: BACHELOR OF SCIENCE IN HORTICULTURE
YEAR IV

COURSE CODE: HORT 407

TITLE OF PAPER: HYDROPONICS

TIME ALLOWED: TWO (2) HOURS

INSTRUCTION: ANSWER ANY FOUR (4) QUESTIONS

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

INSTRUCTION: ANSWER ANY FOUR (4) QUESTIONS

Question 1

- (a) What is hydroponics? [5 marks]
(b) Discuss the advantages and disadvantages of hydroponics [20 marks]
[25 marks]

Question 2

Discuss the merits and demerits of **FIVE (5)** different growing media used in hydroponics production.

[25 marks]

Question 3

- (a) What are the characteristics of a good hydroponics root environment? [10 marks]
(b) What is the purpose of the growing medium in hydroponics? [5 Marks]
(c) What factors influence the choice of growing medium in hydroponics? [10 marks]
[25 marks]

Question 4

Describe briefly the commercial hydroponics production of lettuce using the deep pool floating raft technology.

[25 marks]

Question 5

Describe briefly the following hydroponics methods:

- (a) Ebb and flow [5 marks]
(b) Sub-irrigation [5 marks]
(c) Grow bag technique [5 marks]
(d) Nutrient Film Technique [5 marks]
(e) Wick system [5 marks]

[25 marks]