



**2<sup>ND</sup> SEMESTER 2019/2020**

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**UNIVERSITY OF ESWATINI**

**FINAL EXAMINATION PAPER**

**PROGRAMME: BACHELOR OF SCIENCE IN HORTICULTURE YEAR 4**

**COURSE CODE: HRT406**

**TITLE OF PAPER: HYDROPONICS**

**TIME ALLOWED: TWO (2) HOURS**

**INSTRUCTION: ANSWER ANY FOUR (4) QUESTIONS**

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

**INSTRUCTION: ANSWER ANY FOUR (4) QUESTIONS****Question 1**

- a) Discuss **five (5)** different types of hydroponics systems. [10]
- b) Discuss the factors that influence the growth rate and health of crops in hydroponics production. [15]

**[25 MARKS]****Question 2**

Discuss the proper care and maintenance of hydroponics system for successful crop production.

**[25 MARKS]****Question 3**

- a) What are the factors affecting the choice of media for hydroponics production. [10]
- b) What is the purpose of the growing medium in hydroponics? [5]
- c) What are the essential requirements in a commercial hydroponic production unit? [10]

**[25 MARKS]**

**Question 4**

Discuss the open hydroponics system.

**[25 MARKS]**

**Question 5**

After attending a workshop on hydroponics production, Mr. Dlamini lost his production manual. Explain to him the steps involved in mixing the nutrient solution in bulk tank system (one tank only) and in adjusting the pH of the nutrient solution.

**[25 MARKS]**