



*"Investing in Africa's Future"*

DEPARTMENT OF AGRICULTURE AND NATURAL SCIENCE

AHC 301: Introduction to Horticulture

END OF SECOND SEMESTER EXAMINATIONS

April/May 2019

LECTURER: MTAITA TA

DURATION: 3 HOURS

### **INSTRUCTIONS**

1. Write your Registration Number **[NOT YOUR NAME]** on the answer sheet

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2. Use Answer Sheets Provided To Answer **Four** Questions Only

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3. Begin your answer for Each Question on a New Page

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4. Credit is Given for Neat Presentation

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## **AHC 301: Introduction to horticulture**

### **Answer Four Questions**

#### **Question One**

- a) Subjects in agriculture dealing with plants include agronomy, horticulture, and forestry. What then determines whether a plant will be considered as agronomic, horticultural or forestry? [6]
- b) Explain five characteristics of horticultural crops which an entrepreneur has to consider to succeed in any horticultural venture [10]
- c) Elucidate any six divisions of horticultural science [9]

#### **Question Two**

- a) With special reference to your country of origin, clarify the importance of horticulture in society. [10]
- b) Explain five major constraints faced by the small holder horticultural producers. [15]

#### **Question three**

- a) With the aid of a well labeled figure, elaborate major steps in micro-propagation. [6]
- b) Discuss the physiological basis of pruning and training of horticultural crops. [10]
- c) Delineate any nine of the following: totipotency, horticulture, phyto-hormones, de-differentiation, air layering, frost, tissue culture, somatic embryogenesis, budding, fertigation. [9]

#### **Question four**

- a) Identify and elaborate the commercial uses of the five major groups of the plant growth regulators. [15]
- b) Discuss the direct and indirect methods of frost control [10]

### Question Five

Write about any **five** of the following:

- i) Key principles in horticulture science. [5]
- ii) Marketing of horticultural crops. [5]
- iii) Natural and artificial classification of horticultural crops. [5]
- iv) Rotations in horticulture. [5]
- v) Grafting. [5]
- vi) Green house production. [5]

### Question six

- a) Discuss the advantages and disadvantages of asexual propagation. [10]
- b) Differentiate home gardening from market gardening. [5]
- c) Discuss the five conditions necessary for grafting success. [10]