



"Investing in Africa's Future"

COLLEGE OF HEALTH, AGRICULTURE & NATURAL SCIENCES

AHC 302: Vegetable Production

END OF FIRST SEMESTER EXAMINATIONS

November/December 2019

LECTURER: MTAITA TA

DURATION: 3 HOURS

INSTRUCTIONS

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

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

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

4. Credit is Given for Neat Presentation

Question One

- a) Discuss the components and importance of human and material environment in vegetable production [5]
- b) With practical examples, discuss the five major classification methods of vegetables and indicate the importance of each approach [10]
- c) Discuss the importance of vegetables in human diet. [10]

Question Two

- a) There are at least 10 principles required in the production of vegetable crops which are very important and well known to the grower. Discuss any 10 principles with practical examples. [15]
- b) Discuss any five vegetable production practices which have been developed as a result of rapid urbanization and socio economic and political situations. Recommend with reasons the two practices suitable for a local community of your own choice. [10]

Question Three

- a) Elaborate the five factors determining vegetable nursery location [5]
- b) Advise a vegetable grower on the 10 vegetable nursery tools and their use. [10]
- c) Vegetable cultivation and cropping systems include mono-cropping, mixing farming, multiple cropping, intercropping, sequential cropping, crop rotation, agroforestry and Alley cropping. Discuss any five of these cultivation and cropping systems. [10]

Question Four

With the aid of realistic examples, expound any 10 major routine operations in vegetable production. [25]

Question Five

Discuss any **five** of the following major categories of challenges facing most of the vegetable enterprises:

- | | |
|----------------------|------------|
| 1) Biological, | [5] |
| 2) Agronomic, | [5] |
| 3) Climatic, | [5] |
| 4) Economic, | [5] |
| 5) Sociological, and | [5] |
| 6) Environmental. | [5] |

Question Six

- a) Advice farmer on why adoption of vegetable greenhouse production is sometimes imperative. **[5]**
- b) Using tomato or another fruit vegetable as an example, present a detailed discussion of how high fruit quality is achieved by following appropriate practices in the growth – to – harvest cycle of the crop **[20]**

Question Seven

- a) Explain any five practical reasons why a good rotation system must be followed to prevent the deterioration of production **[5]**
- b) Explain the planning of a crop rotation system in cases where several vegetable crops are to be grown on a small area of arable land **[5]**
- c) Develop a vegetable rotation plan/system over a period of 4 years for 1 ha soil for the cultivation of: Tomatoes, Sweet peppers, Cauliflower, Cabbage, Beetroot, Green beans and sweet potatoes **[15]**