



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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## University Examinations 2015/2016

THIRD YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF  
BACHELOR OF SCIENCE IN HORTICULTURE

### AHS 2302: OLERICULTURE I

DATE: NOVEMBER 2015

TIME: 2 HOURS

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INSTRUCTIONS: Answer question *one* and any other *two* questions

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#### QUESTION ONE (30 MARKS)

- a) Describe the following vegetable production systems (9 Marks)
- i) Home garden
  - ii) Market garden
  - iii) Vegetable garden for processing
- b) Botanical classification is one type of vegetable classification. State other types. Classify Onion and cauliflower in terms of these four classifications (7 Marks)
- c) What are major pests of Brassicaceae family? (5 Marks)
- d) What are the challenges of vegetable production faced by Kenyan farmers? (4 Marks)
- e) Explain the term “conditions of transplants” and outline four methods of undertaking it. (5 Marks)

**QUESTION TWO (20 MARKS)**

- a) Describe Soilless culture (5 Marks)
- b) Solid soilless culture are most commonly used media culture systems in greenhouse vegetables farming because it offers major advantages over their types of soilless culture. Discuss (15 Marks)

**QUESTION THREE (20 MARKS)**

- a) Discuss the key pest and diseases of potato (*Solanum tuberosum* L.) (10 Marks)
- b) The reducing sugar content of potatoes and processing quality are markedly affected by cultural and environmental conditions. During storage and growing period, describe the factors that affect potato processing quality. (10 Marks)

**QUESTION FOUR (20 MARKS)**

- a) What is integrated pest management? (3 Marks)
- b) Describe the four basic principles of integrated pest management? (4 Marks)
- c) What steps are recommended in order to carry out these principles of integrated pest management? (6 Marks)
- d) An effective integrated pest management uses a number of tools. Describe seven of these tools? (7 Marks)