



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF AGRICULTURAL AND FOOD SCIENCES
UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE
IN HORTICULTURE
SECOND YEAR SECOND SEMESTER 2013/2014 ACADEMIC YEAR
REGULAR

COURSE CODE: AHT 3226

COURSE TITLE: Plant Propagation and Nursery Management

EXAM VENUE:LR 3

STREAM: BSc (Horticulture)

DATE:10/12/14

EXAM SESSION: 2.00 – 4.00PM

TIME: 2.00 HOURS

Instructions:

- 1. Answer ALL question in Section A (compulsory) and ANY TWO questions in Section B.**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

SECTION A [30 MARKS]

Question 1

- (a) Explain the essential environmental requirements for successful rooting OF cuttings. [4 marks]
- (b) Give five reasons for grafting and budding. [5 marks]
- (c) Describe the methods for overcoming seed dormancy in sexual propagation. [4 marks]
- (d) What is micro propagation? Explain the applications of micro propagation. [5 marks]
- (e) Highlight the physical and chemical properties of a good propagation medium for nursery plants. [5 marks]
- (f) Explain:
 - i. Types of nursery beds. [3 marks]
 - ii. What is meant by a rootstock and a scion? [4 marks]

SECTION B [40 MARKS]

Question 2

Write notes on the following:

- (a) Vermiculite [5 marks]
- (b) Chimera [5 marks]
- (c) Apomixis [5 marks]
- (d) Clone. [5 marks]

Question 3

- (a) Explain propagation inventory in nursery management. [10 marks]
- (b) What is graft incompatibility? Describe the symptoms and causes of graft incompatibility. [10 marks]

Question 4

A prospective vegetable grower is contemplating growing cucumbers for domestic and export markets. Provide an analysis of factors considered in the selection of nursery site for the seedling production. [20 marks]