



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND
TECHNOLOGY**

SCHOOL OF AGRICULTURAL AND FOOD SCIENCES

**FOURTH YEAR SECOND SEMESTER EXAMINATION FOR THE
DEGREE OF
BACHELOR OF SCIENCE IN HORTICULTURE
2017/2018 ACADEMIC YEAR**

REGULAR

COURSE CODE: AHT 3421

COURSE TITLE: GREENHOUSE PRODUCTION AND MANAGEMENT

EXAM VENUE:

STREAM: BSC. HORT.

DATE:

EXAM SESSION:

TIME: 2 HOURS

Instructions:

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

SECTION A[30 MARKS]

Answer ALL questions in this section

1a.Outline the benefits of greenhouse crop cultivation.

[10 marks]

b. Explain recycling method as a way of plastic waste disposal in greenhouse production.

[10 marks]

c. Greenhouses are commonly used in Kenya to produce vegetables, nursery stock / plants. But sometimes outside ambient temperature rises causing inside greenhouse temperature not ideal for production of good quality crop. Explain how the temperature inside the greenhouse can be modulated by **ventilation, evaporative cooling** and **shading**.

[10 marks]

SECTION B[40 MARKS]

Answer ANY TWO questions in this section

2.Explain the following in greenhouse production and management:

a. Thermostats

[8 marks]

b. Analogs

[6 marks]

c. Tensiometers.**[6 marks]**

3. Modern greenhouse production procedures emphasize quality assurance in all production processes. Explain some alternative cropping systems currently in use. **[20 marks]**

4. Describe the following in greenhouse management:

a. Crop and product quality

b. Spectral light quality

c. Temperature and energy flows

d. Media fertility management.

[20 marks]