



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

**SCHOOL OF AGRICULTURAL AND FOOD SCIENCES**

**THIRD YEAR SECOND SEMESTER EXAMINATION FOR THE  
DEGREE OF  
BACHELOR OF SCIENCE IN HORTICULTURE  
2019/2020 ACADEMIC YEAR**

**RESIT**

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**COURSE CODE: AHT 3322**

**COURSE TITLE: SUSTAINABLE HORTICULTURAL PRODUCTION**

**EXAM VENUE:**

**STREAM: BSC. Horticulture**

**DATE:**

**EXAM SESSION:**

**TIME: 2 HOURS**

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**Instructions:**

- 1. Answer ALL questions in section A and ANY other 2 Questions 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]**

- 1a. Explain the concept of integrated sustainable horticultural production: **[4 marks]**
- b. Highlight the characteristics of organic farming in horticulture. **[8 marks]**
- c. Outline strategies for developing sustainable horticultural production. **[6marks]**
- d. A nursery practitioner wants to raise vegetable seedlings in advance which will be sold to local producers, explain the site and substrate the practitioner would select. **[6 marks]**
- e. Explain what is meant by integrated crop management. **[6 marks]**

**SECTION B**

**[40 MARKS]**

2. Describe an integrated organic crop system including horticultural crops in a hypothetical farm. **[20 marks]**
3. Explain in sustainable horticultural production:
- a. Efficient water and nutrient use **[10 marks]**
- b. Social responsibility and Worker welfare **[10 marks]**
- 4a. As a consultant horticulturalist, a prospective horticultural grower approaches you to advice on what to grow, how to grow and when to grow. Explain the concepts to include in a feasibility study. **[10 marks]**
- b. Explain the management practices in a nursery establishment for horticulture crops. **[10 marks]**

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