



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF AGRICULTURAL AND FOOD SCIENCES**  
**UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE IN SOIL**  
**SCIENCE**  
**2<sup>ND</sup> YEAR 2<sup>ND</sup> SEMESTER 2018/2019 ACADEMIC YEAR**  
**REGULAR**

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**COURSE CODE: AHT 3227**

**COURSE TITLE: HORTICULTURAL MATERIALS AND STRUCTURES**

**EXAM VENUE:**

**STREAM:**

**DATE: 18/4/19**

**EXAM SESSION: 3.00 – 5.00PM**

**TIME: 2.00 HOURS**

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**Instructions**

- 1. Answer ALL questions 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**
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**SECTION A: [30 MARKS]**

1. Explain why is wood commonly preferred as a building material. (4 marks)
2. Explain the importance of seasoning of timber. (5 marks)
3. Describe how corrosion of metals can be controlled. (3 marks)
4. Discuss the following:
  - a. Farm stead planning (3 marks)
  - b. Zone planning (3 marks)
5. Discuss advantages and disadvantages of using plastic as a construction material (10 marks)
6. State the differences between the hardwood and soft wood (2 marks)

**SECTION B: [40 MARKS]**

7. Discuss
  - a. Four characteristics of wood that makes it suitable for construction (12 marks)
  - b. List the guidelines that will assist you when selecting the site for farm buildings and structures (8 marks)
8. Describe
  - a. Five wood defects that can make it unsuitable for construction. (10 marks)
  - b. Factors to be considered when choosing materials for construction. (10 marks)
9. Discuss important considerations when constructing a greenhouse (20 marks)
10. Write an essay on:
  - a. The important factors to consider in farm planning. (10 marks)
  - b. The features that are important for a safe and efficient workshop (10 marks)