



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY  
SCHOOL OF AGRICULTURAL AND FOOD SCIENCES**

**THIRD YEAR SECOND SEMESTER UNIVERSITY EXAMINATION FOR THE  
DEGREE OF BACHELOR OF AGRIBUSINESS MANAGEMENT**

**2020/2021 ACADEMIC YEAR  
REGULAR**

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**COURSE CODE: APT 3321**

**COURSE TITLE: Perennial Crops**

**EXAM VENUE:**

**STREAM: BSc. Agribusiness Management**

**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]**

**Answer ALL questions from this Section**

1. Choose the phrase from the right column that best fits the term in the left column

**[5 MARKS]**

1. Alfalfa	a. <i>Citrus × limon</i>
2. Pineapple	b. <i>Agave sisalana</i>
3. Cassava	c. <i>Fragaria × ananassa</i>
4. Pyrethrum	d. <i>Tanacetum cinerariifolium</i>
5. Tea	e. <i>Helianthus doronicoides</i>
6. Cashew	f. <i>Saccharum sp.</i>
7. Sisal	g. <i>Asparagus officinalis</i>
8. Sugarcane	h. <i>Ipomoea batatas</i>
9. Coffee	i. <i>Carica papaya</i>
10. Papaya	j. <i>Medicago sativa</i>
	k. <i>Coffea sp.</i>
	l. <i>Camellia sinensis</i>
	m. <i>Musa sp.</i>
	n. <i>Manihot esculenta</i>
	o. <i>Ananas comosus</i>
	p. <i>Anacardium occidentale</i>
	q. <i>Abelmoschus manihot</i>

2. Explain FIVE benefits of perennial-integrated agriculture over.

**[5 MARKS]**

3. Explain the role of Coffee Research Authority.

**[5 MARKS]**

4. Name the center(s) of origin for the following perennials: (a) tea; (b) coffee; (c) sugarcane; (d) pyrethrum; and (e) cashew

**[5 MARKS]**

5. Describe TEN commonly used methods for controlling fungal diseases in fields planted/to be planted with pineapple **[5 MARKS]**

6. Explain why over-eating of sugarcane causes significant health risks. **[5 MARKS]**

**SECTION B (40 MARKS)**

**Answer ANY TWO questions in this section**

7a. Discuss TEN challenges facing tea production in Kenya **[10 MARKS]**

7b. DESCRIBE the following processes involved in post-harvest handling of sisal:

(i) decortication; (ii) retting; (iii) drying; (iv) brushing; and (v) grading **[10 MARKS]**

8a. Explain TEN reasons why the practice of de-trashing is an important cultural practice in sugarcane production **[10 MARKS]**

8b. Several fungal diseases are known to attack alfalfa. Name FIVE of these diseases; and give at least ONE causative agent for each of the diseases you have mentioned **[10 MARKS]**

9. Explain the following in coffee production:

i. Ecological requirements. **[10MARKS]**

ii. Benefits of mulching. **[6MARKS]**

iii. Varieties and growing eco-zones. **[4MARKS]**