



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

SCHOOL OF AGRICULTURAL AND FOOD SCIENCES

**SECOND YEAR SECOND SEMESTER UNIVERSITY EXAMINATION
FOR THE DEGREE OF BACHELOR OF SCIENCE IN ANIMAL SCIENCE**

2024/2025 ACADEMIC YEAR

SIAYA

COURSE CODE: AAS 3325

COURSE TITLE: APICULTURE AND SERICULTURE PRODUCTION

EXAM VENUE: STREAMS: BSc. ANIMAL SCIENCE

DATE: EXAM SESSION:

TIME: 2 HOURS

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. State the role of bee keeping in environmental conservation. **(2 marks)**
2. In the event of death of a queen in the hive, how does the colony get a replacement. **(3 Marks)**
3. Outline the conditions under which honey can be fermented or taste sour **(3 marks)**
4. Explain the term sericulture and the THREE basic steps involved. **(3 marks)**
5. Bees are known to have an organized communication method. Giving examples, discuss this statement. **(5 marks)**
6. Discuss the special characteristics of worker bees that enable them to efficiently perform their duties. **(3 marks)**
7. Articulate the FIVE types of silkworms reared in the world. **(4 marks)**
8. Briefly discuss how bee venom and propolis is harvested and their uses. **(3 marks)**
9. Describe the caste system in honeybee biology. **(2 marks)**

SECTION B [40 MARKS]

Answer ANY TWO questions from this Section.

10. Discuss the management of bees under the following:
 - a. Colony management **(5 marks)**
 - b. Honey processing and storage **(5 marks)**
 - c. Components of bee venom and harvesting **(5 marks)**
 - d. Common pests and diseases in a bee colony **(5 marks)**
11. Discuss sericulture under the following;
 - a. Rearing of silk worms **(5 marks)**
 - b. Harvesting methods **(5 marks)**
 - c. Mounting of cocoons **(5 marks)**
 - d. Mulberry cultivation **(5 marks)**

12. Bee keeping is categorized as an environmentally friendly enterprise. Justify this statement, stating the reasons and importance of bee keeping.
(20 marks)