JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF AGRICULTURAL AND FOOD SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN FOOD SECURITY

3RD YEAR 2ND SEMESTER 2018/2019 ACADEMIC YEAR

REGULAR

COURSE CODE: AAS 3327

COURSE TITLE: APICULTURE AND SERICULTURE

EXAM VENUE: **STREAM: BSc. (Food Security)**

DATE: **EXAM SESSION:**

TIME:

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 in this section

1. State three qualities of silk. (3marks)
2. State four challenges encountered during harvesting of traditional logwood bee hives. (4marks)
3. Briefly describe the bio-chemical composition of silk. (3marks)
4. Complete the following table: (8marks)

Name of silk spinning sp.	Type of silk	Host plant
1. __	____	mulberry
2. *A. panda*	____	__
3.__	__	acacia
4.__	wild silk	___

a). Name the endemic areas of Kenya for the silk spinning species 2, 3 and 4. (3marks)
b). Briefly explain the threats to the survival of species 2, 3 and 4. (3marks)
c). In addition to its use as the chief food of species 1, state the commercial, medicinal and food values of host plant 1. (6 marks)

SECTION B: (40 MARKS)

Answer ANY TWO questions from this section

5.a). Discuss the potential of mulberry silkworm (*B. mori*) rearing for providing solution to the energy crisis in rural areas of Kenya. (8marks)
b). Discuss the causes of absconding and migration and the mitigation measures against these behaviours among *A. mellifera*. (8marks)

c). Briefly explain the mode of transmision of pebrine infection in *B. Mori*. (4marks)

7. a).Discuss why the design of the Langstroth bee hive offers a desirable and efficient beekeeping technology. (7marks)

. b).Explain the meaning of the term value chain. (2marks)

c). Describe the sericulture value chain. . (5marks)

d). Explain the THREE special adaptations (WISDOM OF THE INSECT) of the mulberry silkworm, *B. mori*. (6marks)

9. a).Complete following Table- Diseases of the mulberry silkworm, *B. Mori.* (20marks)

Disease	Causal agents/symptoms	Prevention/control	Disinfectant and disinfection:
1. Pebrine			
2. Flacherie			
3.Grasserie			
4.Muscardine			