JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES

UNIVERSITY RESIT/SPECIAL EXAMINATION FOR THE DEGREE OF BACHELOR OF BIOLOGICAL SCIENCES AND EDUCATION (SCIENCE) WITH IT
4ᵗʰ YEAR 2ᴺᴰ SEMESTER 2019/2020 ACADEMIC YEAR
REGULAR

COURSE CODE: SBI 3424/SZL 408
COURSE TITLE: ECONOMIC ENTOMOLOGY AND PEST CONTROL
EXAM VENUE: STREAM: (BED. Science)
DATE: ---/11/2020   EXAMINATION SESSION: ……………..
Duration: 2 HOURS

Instructions:
1. **Answer ALL questions in Section A and any two 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: SHORT ANSWER QUESTIONS (30 marks)

1. Outline three properties of a perfect insecticide   (3 marks)

2. List three major methods of malaria transmission in human beings (3marks)

3. Compare the feeding habits of mosquitoes and sand flies   (3 marks)

4. List three species of parasites that cause malaria in man   (3 marks)

5. Name the parasite and vector responsible for the following diseases in humans   (3 marks)

Disease	Parasite	Vector
Filariasis		
Leishmaniasis		
Onchocerciasis		

6. Differentiate between J- and S-shaped population growth curves   (3 mark)

7. Based on chemical nature of compounds list three main groups of insecticides used to control insects of agricultural and public health importance (3 marks)

8. Describe three potential evolutionary outcomes of interspecific competition among insects (3 marks)

9. Describe major components of atypical population system (3marks)

10. State three differences between the two forms of *Leshmania* parasites (3 marks)

SECTION B (40 marks) Answer two questions only

11. Discuss the life cycle and behavior of tsetse flies (20 marks)

12. The numbers of insect vector populations fluctuate over time and in space. Discuss (20 marks)

13. Using specific examples, describe methods used to manage insect vectors in Africa (20 marks)

14. Describe features that contribute to the success of animals that display r- and k-selection strategies (20 marks)