JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF AGRICULTURAL AND FOOD SCIENCES

FOURTH YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURAL EXTENSION AND EDUCATION AND BACHELOR OF SCIENCE IN AGRIBUSINESS MANAGEMENT 2016/2017ACADEMIC YEAR

REGULAR

COURSE CODE: APT 3313

COURSE TITLE: CROP PROTECTION

EXAM VENUE: LR 3   **STREAM: (BSC. Agric. Ext. Educ. & BSC. Agribusiness Mgt.)**

DATE: 20/12/16   **EXAM SESSION: 9.00 – 11.00 AM**

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 in this section

1. Differentiate between pathogens and pests, with appropriate examples.   **[2 marks]**

2. Describe how any four environmental factors can influence disease occurrence in plants.
                                                                             [4 marks]
3. Explain any four symptoms associated with disease occurrence in crops. **[4 marks]**

4. Describe injurious effects of sucking insects of plants, with examples.   **[4 marks]**

5. Describe injurious chewing insects of plants, with examples.   **[4 marks]**

6. Describe the host range and injurious activities of root-knot nematodes.   **[4 marks]**

7. Describe how any two cultural practices affect occurrence of plant pathogens and pests.
                                                                             [4 marks]

8 Describe any two methods of preventing occurrence of infectious diseases in a field of crops.   [**4 marks]**

SECTION B: **[40 Marks]**

Answer ANY TWO questions in this section

1. Discus the concept of Disease Triangle.   **[20 marks]**

2. Discus the concept of Integrated Pest Management   **[20 marks]**

3. Describe any four mmajor fungal diseases of economically important crops in Kenya. Indicate host crops, symptoms, and control methods.   **[20 marks]**

4. Describe the role and activities of Kenya Plant Health Inspectorate Service (KEPHIS).
                                                                             [20 marks]