JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY UNIVERSITY EXAMINATIONS 2012/2013

2ND YEAR 1ST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN FOOD SECURITY

AGRI-BUSINESS MANAGEMENT

(REGULAR)

COURSE CODE: APT 3216

COURSE TITLE: PRINCIPLES OF PLANT PATHOLOGY

DATE: 19/8/13 **TIME: 9.00 – 11.00 AM**

DURATION: 2 HOURS

INSTRUCTIONS

1. **Answer ALL the THREE questions in Section A.**
2. **Answer ANY TWO questions in Section B.**
3. **Write answers Briefly and ELIGBLY.**

SECTION A [30 MARKS]

1.Explain the relationshipbetween Epidemiology and Infectivity [3 Marks]
2.Explain the term inoculum Potential. [3 Marks]
3.Differentiate between Culturalpest management and biological pest control [3 Marks]
4.Explain why the pathogen *Phytopthorainfestans*is very important in crop production. [3 Marks]
5.Explain how plant parasitic viruses are transmitted and identified . [3 Marks]
6.Describe two advantages and twodisadvantages of chemical disease control [5 Marks]
7.Describe three crop production practices in relation to their influence on disease Epidemiology [5 Marks]
8.Explain the difference between polycyclic and monocyclic pathogens. [5 Marks]

SECTION B [40MARKS]

9. Write notes on the following:

a) Two techniques to suppress disease inoculum [6 Marks]
b) Factors affecting inoculum potential. [8 Marks]
c) Integrated Pest Management [6 Marks]

10. Give an account of how environmental conditions affect disease epidemics. [20 Marks]

11. Explain the following: [20 Marks]

a) Pesticide formulation [7 Marks]
b) Effects of plant resistance on pathogen development. [7Marks]
c) Physiological and biochemical mechanisms of plant disease resistance [6 Marks]