

EMBU UNIVERSITY COLLEGE (A CONSTITUENT COLLEGE OF THE UNIVERSITY OF NAIROBI)

TRIMESTER EXAMINATIONS 2013/2014

FIRST YEAR EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE IN AGRICULTURAL RESOURCE MANAGEMENT

ACS 603: CROP PEST MANAGEMENT

DATE: AUGUST 12, 2014

TIME: 5.00 - 8.00PM

INSTRUCTIONS:

Answer ANY FOUR Questions.

QUESTION ONE

a) Define the following terms:

i) Economic pest

(2 marks)

ii) Economic damage

(1 mark)

iii) Economic injury level

(2 marks)

iv) Economic threshold

(2 marks)

b) Discuss the six (6) reproductive strategies applied by insects to ensure their success.

(18 marks)

QUESTION TWO

- a) Assuming you are working as a pathologist with the Ministry of Agriculture in Embu County. A farmer has called your office complaining of a certain disease of tomatoes in his farm that is causing wilting and eventual death of plants. Explain the steps you would take to arrive into a reliable diagnosis of the disease (18 marks)
- b) Discuss the fate of soil-applied herbicides after their application (7 marks)

OUESTION THREE

a) Outline any six (6) ways of diagnosis of viral infections where symptomatology is difficult.

(6 marks)

- b) Discuss weed classification according to lifespan. (9 marks)
- c) Discuss the role played by environmental factors in causing disease epidemic. (10 marks)

QUESTION FOUR

- a) Discuss the economic importance (positive and negative) of insects. (11 marks)
- b) Describe the critical period of weed/crop competition and the factors affecting it.

(7 marks)

- c) Outline the three (3) major types of disease symptoms. (3 marks)
- d) Outline four (4) strategies applied to delay/prevent the development of pathogen resistance against systemic fungicides. (4 marks)

QUESTION FIVE

- a) Discuss the cultural methods of insect pest management, outlining various strategies involved. (9 marks)
- b) Demonstrate, clearly and briefly, the difference between the two types of host resistance.

(6 marks)

c) Outline any ten (10) negative effects of weeds (10 marks)