



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2010/2011

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE

(CROP IMPROVEMENT PROTECTION)

KST 302: PLANT PATHOLOGY AND MANAGEMENT

DATE: Tuesday 29th March, 2011

TIME: 2.00 p.m. – 4.00 p.m.

INSTRUCTIONS

Answer *ALL* questions in *SECTION A* and *ANY TWO* Questions in *Section B*. Answers in *Section A* should be concise.

SECTION A: SHORT ANSWER QUESTIONS (5 MARKS EACH)

1. Define the following:
 - a. Hyperparasitism
 - b. Disease prevalence
 - c. Induced resistance
 - d. Necrosis
 - e. Biotrophs
2. List and briefly discuss two major roles played by KEPHIS in crop protection in Kenya.
3. Match correctly the diseases listed below with their causal agent

Disease	Causal Agent
a. Apple Scab	<i>Streptomyces scabies</i>
b. Black rot of Crucifers	<i>Hemileia vastatrix</i>
c. Common Scab of potatoes	<i>Pyricularia oryzae</i>
d. Leaf rust of coffee	<i>Venturia inaequalis</i>
e. Rice Blast	<i>Xanthomonas campestris</i>

4. Briefly explain how do pathogens affect transportation of water and translocation of mineral salts in plants.

5. Explain the significance of hypersensitive reactions in plants.
6. Write short notes on parasitic higher plants.
7. Briefly discuss five important factors that influence the choice of a plant disease control method.
8. Briefly state how moisture influence disease development in plants.

SECTION B: ESSAY QUESTIONS (15 MARKS EACH)

Answer ANY TWO questions.

9. Critically examine the use of chemicals in plant disease control.
10. Discuss in details penetration of plants by pathogens.
11. Write an essay on three important post – infection structures formed by plants against pathogens.
12. Assume that you have been given a leaf infected by a bacterium; discuss how you would determine the actual causal agent.

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