

**cNATIONAL UNIVERSITY OF LESOTHO**  
**CROP SCIENCE DEPARTMENT**

**CPS 4509: Integrated Pest and Disease Management**

**Supplementary Exam**

**Date:** August 2023

**Marks:** 100

**Time:** 3hours

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**Instructions:** a) Answer any 2 from Section A and any 2 questions from Section B  
b) All questions carry equal marks

## SECTION A

**Instructions: Answer any 2 questions in this section. All questions carry equal marks.**

### **QUESTION 1**

- a) Describe how crop rotation can influence development of plant disease. [15 Marks]
- b) Discuss plant disease measurement and its importance in IDM [10 Marks]

### **QUESTION 2 (25 Marks)**

- Describe IDM and its significance in plant diseases control [15]
- b) Explain the use of induced host resistance in IDM [10]

### **QUESTION 3 (25 Marks)**

- a) Discuss disease management in organic farming under [15]
- i. Choice of cropping system
  - ii. Flooding and earthing up
  - iii. Organic practices after planting
- b) Describe any two methods used in determining the plant disease thresholds [10]

## **SECTION B**

### **QUESTION FOUR**

1. Elaborate on any four operational factors that lead to insect resistance to insecticides
2. Explain management of resistance development by multiple attack

### **QUESTION FIVE**

Explain the following pest management strategies and the tactics used in each strategy

1. Do nothing strategy
2. Reduced number strategy
3. Reduced crop susceptibility strategy

### **QUESTION SIX**

1. Define Integrated Pest Management (IPM) by elaborating on each letter
2. Discuss the first five principles of IPM