



**MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY  
(MMUST)**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS  
2021 / 2022 ACADEMIC YEAR**

**FIRST YEAR SECOND SEMESTER MAIN EXAM**

**FOR THE DEGREE**

**OF**

**MASTER OF SCIENCE**

**IN PLANT BREEDING**

**(MSc. PL. BREEDING)**

**COURSE CODE: APH 827**

**COURSE TITLE: PLANT DISEASE EPIDEMIOLOGY AND MANAGEMENT**

**DATE: 28<sup>TH</sup> APRIL, 2022**

**TIME: 2-5PM**

---

**INSTRUCTION TO CANDIDATES**

Answer ALL QUESTIONS IN SECTION ONE and any other TWO in section B

Time: 2hrs

## SECTION A

(40 marks) Answer all questions

1. Define the following terms: Quantitative epidemiology, Disease Cycles, Plant quarantine, Host eradication and Trap crops (10 marks).
2. Comment on factors affecting disease epidemic( 5 stages, 5 marks)
3. Describe the major benefits of crop rotation and use of disease free planting materials in reducing disease epidemic intensity (5 marks).
4. Define antagonistic plants and name some that are used in disease control (10 marks).
5. Define Chemical control, mention some of dangers and benefits of controlling diseases (10 marks).

## SECTION B

(60 marks) answer **TWO** questions

6. List and discuss disease warning systems in plant pathology (20 marks)
7. Discuss development and use of expert systems in plant pathology (20 marks).
8. Name and describe computer simulations of epidemics
9. Discuss a Forecasting plant disease epidemics (10 marks), b) describe at least five Epiphytotics in the world history (10 marks),