AFRICA UNIVERSITY

"Investing in Africa's Future"

COLLEGE OF HEALTH, AGRICULTURE & NATURAL SCIENCES

ACP 304 PLANT PATHOLOGY

END OF SECOND SEMESTER EXAMINATIONS

APRIL/MAY 2018

LECTURER: W. MANYANGARIRWA

DURATION: 3 HOURS

INSTRUCTIONS

1. Answer Question 1 and Any three Other Questions
2. Do not write your name on the answer sheet
3. Use Answer Sheets Provided
4. Begin your answer for Each Question on a New Page

ACP 304 PLANT PATHOLOGY

INSTRUCTION TO CANDIDATES

ANSWER QUESTION ONE (1) AND ANY THREE OTHER QUESTIONS

COMPULSORY QUESTION

1. a) Give a detailed outline of the Koch's Postulates in disease identification. Describe some of the challenges faced in fulfilling the Koch's Postulates. [12 marks]

b) Describe a simple laboratory practical that one can use to isolate nematodes from a spoil sample. [13 marks]

OPTIONAL QUESTIONS
ANSWER ANY THREE QUESTIONS

2. With the use of a well labeled diagram, describe the Disease Cycle, citing the weak points in the cycle that can be targeted for disease control. [25 marks]

3. For an annual crop that you have studied in detail, outline the main diseases encountered and asses the impact of Good Agricultural Practices (GAP) in controlling the diseases. [25 marks]

4. Outline the main factors that influence the outbreak of plant diseases in Disease Epidemiology. [25 marks]

5. Seed borne diseases can be caused by fungi, bacteria or viruses. Describe in detail **ONE** laboratory technique used to test seeds for fungi and **ONE** technique to test for seed-borne bacteria. [25 marks]

6. Disease Clinics are very important in disease diagnosis. Outline the laboratory procedures that you would follow when a farmer submits a diseased plant sample up to giving recommendations to control the disease. [25 marks]

7. a) With reference to appropriate examples, discuss the development of fungal resistance to fungicides. [12 marks]

b) Discuss the measures that farm managers and other practitioners can implement to delay the onset of fungicide resistance in fungi. [13 marks]

End of Examination Paper