



# **MAASAI MARA UNIVERSITY**

## **REGULAR UNIVERSITY EXAMINATIONS 2018/2019 ACADEMIC YEAR FOURTH YEAR END OF SECOND SEMESTER**

### **SCHOOL OF SCIENCE AND INFORMATION SCIENCES BACHELOR OF SCIENCE**

**COURSE CODE: BOT 420**

**COURSE TITLE: PHYTOPATHOLOGY**

**DATE: 18<sup>TH</sup> APRIL, 2019**

**TIME: 1430 - 1630HRS**

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#### **INSTRUCTIONS TO CANDIDATES**

- a) Answer **ALL** questions in section **A** and **ANY two** in Section B
- b) Illustrate your answers with suitable diagrams and give examples wherever necessary.

*This paper consists of 2 printed pages. Please turn over.*

**SECTION A: ANSWER ALL, EACH QUESTION CARRIES 3 MARKS**

1. Explain the definition to the following terms: invasion, disease cycle, Mutualism (3 marks)
2. Explain three causes of plant disease citing examples to each (3 marks)
3. Describe the cultural methods employed in micro-organism isolation (3 marks)
- 4 Explain the importance of phytopathology studies (3 marks)
5. Outline the key factors that determine the parasitic relationships (3 marks)
6. Describe three symptoms of plant diseases and cite to each an example of a disease which demonstrates the symptoms (3 marks)
7. Outline the concepts of plant pathology (3 Marks)
8. Describe the effects of pathogens on plants (3 marks)
9. Explain the biological importance of fungi in our environment/society (3 marks)
10. Explain the obligate and facultative symbiotic relationship (3 marks)

**SECTION B: ANSWER ANY TWO QUESTION CARRIES 20 MARKS**

11. Explain the host-parasite interactions in an ecosystem (20 marks)
- 12 Describe the six basic principles underlying plant disease management (20 marks)
13. Discuss various types of **symbiotic relationships** (20 marks)
14. Outline the practical techniques required in the preparation of media and describe all the septic procedures necessary for culturing monitoring and isolation of pure cultures (20 marks)

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