MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATIONS

2017/2018 ACADEMIC YEAR

FOURTH YEAR SECOND SEMESTER EXAMINATIONS
FOR
THE DEGREE OF BACHELOR OF SCIENCE (BOTANY)

BOT 420: PHYTOPATHOLOGY

DATE: 18TH APRIL 2018 **TIME: 0830-1030HRS**

Instructions

Answer **ALL** questions in section **A** and any other **TWO** questions in section **B.**
Illustrate your answers with diagrams and give examples where appropriate.

SECTION A (30 MARKS): ANSWER ALL QUESTIONS

1. Define the following terms as used in Phytopathology;
    a. Symptom (½ mk)
    b. Pathogenicity (½ mk)
    c. Susceptibility (½ mk)
    d. Tolerance (½ mk)
    e. Aggressiveness (½ mk)
    f. Disease (½ mk)
2. Outline the steps in disease cycle. (3mks)
3. Give the economic importance of plant diseases. (3mks)
4. Elucidate on the control methods of plant disease. (3mks)
5. Describe how nematodes cause plant diseases. (3mks)
6. Highlight the symptoms of viral diseases. (3mks)
7. Describe a disease of significant economic importance in Narok County. (3mks)
8. Give the main HOST factors that determine disease development. (3mks)
9. Describe THREE methods used in forecasting diseases. (3mks)
10. Show how *Agrobacterium tumefaciens* affects plants. (3mks)

SECTION B (40 MARKS): ANSWER ANY TWO QUESTIONS

11. Describe in detail, a **Fungal** disease, a **Bacterial** disease and a **Viral** disease affecting a plant of your choice. (20 mks)

12.
    a. Describe the disease triangle. (7 mks)
    b. Account for the environmental factors that determine development of a plant disease. (13 mks)

13. Classify plant diseases. (20 mks)

14. Describe how you would isolate, culture and characterize a fungus sp. from a diseased plant. (20 mks)

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