# 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 419
## COURSE TITLE: MICROBIOLOGY II

**DATE: 18TH APRIL, 2019** **TIME: 1100 – 1300HRS**

**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 papers. Please turn over.***

**Answer ALL Questions in Section A**

1. Explain the properties of micro flora organisms that enable them to survive in /on their hosts (3 marks)
2 Explain the environmental effects of pathogen on plants (3 marks)
3 Outline Rizosphere organism that is deleterious to plant growth and health (3 marks)
4 Describe one media used for culturing of fungi and state its importance (3 marks)
5 Describe three major factors that determine decomposition of organic matter (3 marks)
6 Describe some factors that determine the functions of a healthy soil (3 marks)
7 Describe the role of micro- organisms in soil decomposition (3 marks)
8 Describe necrosis and mildew symptoms in plants (3 marks)
9 Compare and contrast the symbiotic and non-symbiotic nitrogen fixation (3 marks)
10 Explain how salinity and acidity control the activity of soil biota (3 marks)

**SECTION B: Answer Any Two Questions Each Question carries 20 marks**

11 Discuss the human interventions that influences soil organic matter in an environment (20 marks)
12 Discuss how you can increase/decrease the rate of soil decomposition in an ecosystem (20 marks)
13 Explain symbiotic and non-symbiotic relationships in nitrogen fixation (20 marks)
14. Discuss the identification and control of the major plant diseases in East African countries (20 marks)

**//END**