

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF DOCTORATE OF
PHILOSOPHY IN**

BOTA 934: ADVANCED SOIL MICROBIOLOGY

STREAMS: PhD

TIME: 3 HOURS

DAY/DATE: MONDAY 12/08/2019

8.30 A.M. – 11.30 A.M.

INSTRUCTIONS:

- Answer any **THREE** questions.

1. Discuss the influence of soils on soil microbes. (20 marks)
 2. Discuss the application of the following in biotechnological processes:
 - (a) Halophiles (12 marks)
 - (b) Psychrophiles (8 marks)
 3. (a) Discuss the following:
 - (a) Factors affecting composting. (5 marks)
 - (b) Effects of micro flora on host plants. (5 marks)
 - (c) Organic factors affecting microbial community in soil. (5 marks)
 - (d) Factors affecting organic matter decomposition. (5 marks)
 4. Discuss the role of microorganisms in the nitrogen cycle. (20 marks)
 5. Discuss the interactions between plants and microbes. (20 marks)
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