

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF
SCIENCE IN MICROBIOLOGY**

BOTA 131: GENERAL MICROBIOLOGY

STREAMS:

TIME: 2 HOURS

DAY/DATE: TUESDAY 19/12/2023

11.30 A.M. – 1.30 P.M.

SECTION A: Answer all the questions

1. a) Give the roles of a bacteria capsule. (2 marks)
b) Explain the nature of a bacterial endospore. (3 marks)

2. a) Explain two groups of algae found in unusual habitats. (2 marks)
b) State three uses of brown algae. (3 marks)

3. a) Give two forms of fungal nutrition. (2 marks)
b) Explain any three types of fungal asexual spores. (3 marks)

4. Outline the phases involved in the replication cycle of animal viruses. (5 marks)

5. a) Explain the characteristics of bacterial cells growing in a batch culture system during their log phase. (3 marks)
b) Explain the difference between pandemic and endemic disease. (2 marks)

6. a) List three techniques of culturing microorganisms in the laboratory. (3 marks)
b) Explain any two types of microbial growth media based on their function. (2 marks)

SECTION B: Answer two questions

7. Discuss the biotechnology products obtained from microbial fermentations. (20 marks)
 8. Discuss five chemical agents for microbial control. (20 marks)
 9. Describe the characteristics of an ideal indicator organism in sanitary microbiology citing examples. (20 marks)
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