

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

RESIT/SPECIAL

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE (BOTANY)

BOTA/MICB 131: GENERAL MICROBIOLOGY

STREAMS: B.Sc. (BOTA)

TIME: 2 HOURS

DAY/DATE: THURSDAY 04/02/2021

5.00 P.M. – 7.00 P.M.

INSTRUCTIONS:

- **Answer all questions in section A and any two in section B**
- **Do not write anything on the question paper**
- **Use illustrations where appropriate to enhance your answer.**

SECTION A (30 MARKS)

1. (a) Define the following terms: [3 marks]
 - i. Endospore
 - ii. Microbiology
 - iii. Spore(b) Highlight the contribution of the following scientists in microbiology. [2 marks]
 - i) Louis Pasteur
 - ii) Robert Hook
2. State any four general features of fungi. [4 marks]
3. Highlight the functions of capsule in bacteria. [3 marks]
4. (a) State Koch postulates in relation to the isolation of microbial pathogens. [4 marks]
(b) Outline four importance of protozoans in the environment. [4 marks]

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5. a) Describe various shapes of viruses. [3 marks]
b) Discuss any three factors affecting the microbial growth. [3 marks]
6. Describe common aseptic techniques used in the laboratory when culturing microorganism. [4 marks]

SECTION B (40 MARKS)

7. Describe methods that can be used to sterilize materials in the laboratory. [20 marks]
8. Discuss the economic importance of microorganisms. [20 marks]
9. a) Discuss asexual reproduction in fungi. [10 marks]
b) Describe classification in algae. [10 marks]
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