



KISII UNIVERSITY
UNIVERSITY EXAMINATIONS
FIRST YEAR EXAMINATION FOR THE AWARD OF THE
CERTIFICATE IN ANIMAL HEALTH & PRODUCTION
FIRST SEMESTER 2022/2023
(SEPTEMBER - DECEMBER, 2022)

ANHE 00212: BASIC MICROBIOLOGY/ VETERINARY
MICROBIOLOGY

STREAM: Y1 S1

TIME: 2 HOURS

DAY: FRIDAY, 9:00 A.M – 11:00 A.M

DATE: 09/12/2022

INSTRUCTIONS:

- 1. Do not write anything on this question paper.***
- 2. Answer ALL questions in section ONE (Compulsory) and any other TWO in section B.***

SECTION A

- a) State the three reasons why bacteria are stained. (3 marks)

b) Name five bacteria that produce spores. (5marks)

c) State five ways upon which the study microbiology involves. (5 marks)

d) With the aid of a diagram draw the composite ultrastructure of a bacterium. (5marks)

e) Differentiate between a mordant and decolorizing agent in bacteriology. (2 marks)
- a) State three functions of the dark field microscopy. (3marks)

b) State the example of bacteria that takes the following morphology. (9 marks)

 - Crape like cocci
 - Diplococcic
 - Tetrad(cocci)
 - Loosely curved rods
 - Rod in chains

- vi. Curved rods
 - vii. Spring
 - viii. Cocci in chains
 - ix. Rods in palisade
- c) State the function of MacConkey agar in microbiology. (1 mark)
3. a) State two family of viruses. (2 marks)
b) Give two examples of fungi. (2 marks)
4. Define the following terms.
- i.) Enrichment media (1 mark)
 - ii) Streaking (1 mark)
 - iii) Enriched media (1 mark)

SECTION B

5. Discuss the importance of the cell wall and the capsule in bacteriology. (15 marks)
6. Differentiate between Gram staining technique and Acid fast staining. (15 marks)
7. Describe the general structure of viruses. (15 marks)