

CHUKA UNIVERSITY

RESIT EXAMINATION FOR CERTIFICATE IN ANIMAL HEALTH AND PRODUCTION ANHE 00122: VETERINARY MICROBIOLOGY

Instructions:

Answer all questions in section A and any three questions in section B

SECTION A (40 marks)

1. Define the following terms (6 marks each)
 - i. Microscope
 - ii. Mycology
 - iii. Virology
2. John a farmer from Machakos harvested his maize and stored it in the house. One month later on checking the maize it had visible fungal growth and on submission for testing mycotoxins were found in the maize.
 - a) What are two factors that might have led to the fungal growth in the maize (2 marks)
 - b) List two possible mycotoxins that would have been present in the maize and the species of fungi that produce them (4 marks)
3.
 - a) Define a media as used in microbiology (1 mark)
 - b) Give the uses of media in microbiology (2 marks)
 - c) Give 3 examples of bacterial medias (3 marks))
4. A sample from a chicken is submitted for laboratory examination. The report identifies the disease as viral in nature. Identify any 4 potential viral diseases the chicken was suffering from (4 marks)
5. You are called to a farm with a reported case of sudden death. On further examination you find the dead animal is bleeding from all orifices with the blood not clotting. On taking a smear you find out the bacteria is a spore forming and bacilli in shape .
 - a) Identify the bacteria and the disease (2 marks)
 - b) In case of infection to humans, describe the possible clinical forms that can be seen (6 marks)
 - c) Discuss why it is not advisable to open the carcass (2 marks)
6. Staining can be used for identification of bacteria. Identify 2 staining techniques that can be used (4 marks)
7. Identify four equipment you will find in a microbiology laboratory (4 marks)

SECTION B (30 marks)

8. Discuss Fungi under the following headings
 - a) List 4 general characteristics of fungi (4 Marks)

- b) Types of fungal infections affecting animals (4 Marks)
 - c) 2 examples of fungal media (2 Marks)
9. Discuss *Salmonella* under the following headings
- a) General characteristics (4 marks)
 - b) 3 diseases caused by the bacteria and host species affected (6 marks)
10. Describe the process of viral infection (10 marks)
11. Differentiate between sterilization and disinfection giving two methods of each (10 marks)