

CHUKA



UNIVERSITY

**UNIVERSITY EXAMINATIONS**

**EXAMINATION FOR THE AWARD OF CERTIFICATE IN ANIMAL HEALTH AND PRODUCTION**

**ANHE 00123: ANIMAL PARASITOLOGY**

**STREAMS: CERT. ANHE**

**TIME: 2 HOURS**

**DAY/DATE: MONDAY 08/04/2024**

**11.30 A.M – 1.30 P.M.**

**INSTRUCTIONS:**

- Section A (Answer all the questions from this section)
- Label the question numbers clearly
- Do NOT mix answer

1. Define the following terms:
  - (a) Vector (1 mark)
  - (b) Parasite (1 mark)
  - (c) Host (1 mark)
  - (d) Fecal egg count (1 mark)
  - (e) Zoonosis (1 marks)
2.
  - (a) Differentiate between an intermediate host and a definitive host. (2 marks)
  - (b) List THREE ways in which parasites can cause harm to their hosts. (3 marks)
  - (c) Using relevant examples, explain the difference between endoparasites and ectoparasites. (2 marks)
  - (d) List THREE protozoan parasitic species that commonly affect domestic animals. (3 marks)
3.
  - (a) Name TWO diseases caused by trematode infections in animals. (4 marks)
  - (b) Define the term “cuticle” in the context of nematode and explain its significance. (3 marks)
  - (c) Discuss the life cycle of the Eimeria parasite in poultry. (6 marks)

- (d) Outline the morphological difference between chewing and biting lice. (2 marks)
4. (a) Give a detailed diagnostic method that can be used to identify specific arthropod parasites affecting cattle. (6 marks)
- (b) Discuss an integrated approach for controlling arthropod parasites in equines. (4 marks)

**SECTION B (CHOOSE ANY TWO (2) QUESTIONS FROM THIS SECTION  
(30 MARKS))**

5. A case of a dog is brought to your attention with signs of gastrointestinal distress. During the fecal examination, you identify nematode eggs. Answer the following:
- (a) Identify one species of possible nematodes that could be responsible for the dog's gastrointestinal distress. (1 marks)
- (b) Considering the life cycle of the nematode you identified in part (a) describe how the dog might have acquired the infection. (4 marks)
- (c) Describe how to confirm your presumptive diagnosis. (5 marks)
- (d) Explain the potential clinical consequences of untreated nematode infections in dogs. (3 marks)
- (e) State any two drugs used in treating the disease condition. (2 marks)
6. A new graduate seeks your advice about a parasitological problem. Her client has 20 backyard chickens of mixed breed. The chickens are housed in a predator-proof pen at night. The pen is constructed of timber and has an earthen floor. The chickens have the run of the client's yard during the day. Four new chickens were bought three weeks ago, but one of these birds died within a week of purchase. Since then, three more birds have died after a short illness, characteristics by bloody diarrhea. The remaining birds in the flock have stopped laying eggs and another three to five birds have diarrhea and are 'fluffed up'. The client has brought in a bird that died overnight. There is no regular program of parasite control. The veterinarian suspects coccidiosis. Answer all parts of this question:
- (a) Name the species of Eimeria that is/are most likely to be involved in this disease. (3 marks)
- (b) Describe how to confirm your presumptive diagnosis. (5 marks)
- (c) State any two (2) drugs used in treating the disease condition. (2 marks)
- (d) Discuss the prevention and control methods that would prevent a recurrence of the problem in the future. (5 marks)

7. Consider a dog that is presented to you with signs of pruritus. Answer both parts of this question:

- (a) Name three (3) parasites that may contribute to this presentation. (3 marks)
  - (b) Describe a diagnostics plan for determining which, if any, of one of the three parasites you listed in the previous question 7 (a) are contributing to the dog's pruritus. (5 marks)
  - (c) State any two (2) drugs used in treating the disease condition. (2 marks)
  - (d) Discuss the prevention and control methods that would prevent a recurrence of the problem in the future. (5 marks)
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