SIR ARTHUR LEWIS COMMUNITY COLLEGE

ACADEMIC YEAR (2024/2025) – SEMESTER TWO

END OF SEMESTER FINAL EXAMINATION

COURSE CODE	**:**	**AGL201**
COURSE TITLE	**:**	**Animal Health**
LECTURER(S)	**:**	**Catherine McCann**
DATE	**:**	**Tuesday 6th May, 2025**
TIME	**:**	**9:00 a.m – 11:00 a.m**
DURATION	**:**	**2 Hours**
ROOM	**:**	**LFT-1R-05**
STUDENT ID #	**:**	**_____**

GENERAL INFORMATION AND INSTRUCTIONS

- This examination consists of **FIVE (5)** structured questions.
- You are required to answer **ANY FOUR (4)** questions on the paper provided.
- Each question is worth **20 marks** in total.
- **Answer each question on a new sheet of paper.**
- **Calculators are permitted.**
- Students must sign **IN** and **OUT** on the examination class list.
- Write your **Student ID** number on the question paper and question paper that is submitted

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO

QUESTION ONE

a) Differentiate between the terms '**epidemic**', '**endemic**' and '**sporadic'** which are used to describe disease occurrence. Sketch a graph with time on the x-axis and cases of a disease on the y-axis to illustrate your answer.

(7 marks)

b) Differentiate between vertical transmission and horizontal transmission of animal disease. Give an example of a disease transmitted via each method.

(4 marks)

c) Define the terms

i. prevalence

ii. incidence

(4 marks)

iii. A flock of 80 sheep was examined for lameness on 1st November 2024, 25 were found to be lame. What was the **prevalence** of lameness in the flock on 1st November 2024?

(2 marks)

iv. The same flock of sheep was examined for lameness on 1st December 2024. Four new cases of lameness were identified. What was the monthly (4 weekly) **incidence** of lameness in the flock?

(3marks)

Total 20 marks

QUESTION TWO

a) State **THREE (3)** methods of restraining a cow when performing a clinical examination.

(3 marks)

b) Viruses and bacteria are two types of infectious agents. Name **TWO (2)** other major types of infectious agents, providing an example of each.

(4 marks)

c)

i. Biological samples are routinely collected from animals to assist with disease diagnosis. State **THREE (3)** types of samples that may be collected.

(3 marks)

ii. Describe the steps involved in the collection of **ANY ONE (1)** sample named above.

(6 marks)

iii. For **ANY TWO (2)** of the types of samples identified in **(i)** above, state:

- the name of a diagnostic test and
- an example of the disease or condition that the test may be used to diagnose.

(4 marks)

Total 20 marks

QUESTION THREE

a) Define the term mastitis

(2 marks)

b) Differentiate between ‘environmental mastitis’ and’ contagious mastitis’

(2 marks)

c) State **FOUR (4)** clinical signs of mastitis

(4 marks)

d) State **FOUR (4)** steps that a farmer can take to control or prevent mastitis in his/her herd of cows.

(4 marks)

e) Define the term ‘dystocia’.

(2 marks)

f) Describe **THREE (3)** conditions a cow may experience after calving.

(6 marks)

Total 20 marks

QUESTION FOUR

a) Name **TWO (2)** zoonotic diseases

(2 marks)

b) For **ANY ONE** of the diseases named above, provide the following information:

- Host animal

(1 mark)

- Causative agent

(1 mark)

- **THREE (3)** clinical signs in the host animal

(3 marks)

- **THREE (3)** prevention or control measures

(3 marks)

c) Drugs may be administered topically, orally or parenterally (injectable)

i. State how these methods differ from each other.

(3 marks)

ii. State **ONE (1)** type of medication administered using each method.

(3 marks)

iii. Give **TWO (2)** advantages and **TWO (2)** disadvantages of the injectable route over the other two routes.

(4 marks)

Total 20 marks

QUESTION FIVE

i. State **TWO (2)** differences between Argasidae (soft) and Ixodidae (hard) ticks

(4 marks)

ii. Describe the **Lifecycle** of three-host Ixodidae (hard) tick. Use a diagram to help illustrate your answer.

(10 marks)

iii. Infestation with ticks may be major concern for cattle farmers in the tropics. State **THREE (3)** reasons why this may be the case.

(3 marks)

iv. A farmer needs to treat his pigs with ivermectin injection for their mange infestation. The dose rate is 300 mcg ivermectin/kilogram body weight when given subcutaneously in the neck at the rate of 1 mL per 75 lb (33 kg). The farmer has eight pigs each weighing 150lb and eight pigs each weighing 120lbs. How much Ivermectin does the farmer need to treat all his pigs once?

(3 marks)

Total 20 marks

END OF EXAM