Examination Period 3: 2018/19

Module Title: Diagnostic Techniques for Animal Health
Level: Five
Time Allowed: Two hours

Instructions to students:
- Enter your student number **not** your name on all answer books.
- Answer all questions.
- Begin each question in a separate answer book; label each answer book clearly with the number of the question you are answering.
- Neither books nor notes may be taken into the examination.

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Answer all questions.

Question 1

There are four main micro-organism types that interact and can cause disease in animals.

a. Name the four types of micro-organism and for each one give an example of a disease that may be caused by that micro-organism. (10 marks)

b. For each example chosen name one animal that may be affected and the symptoms shown. (10 marks)

c. For one of your chosen examples outline the correct laboratory testing procedures recommended for diagnosis and the recommended treatment. (10 marks)

Total: 30 marks

Question 2

a. Diagnostic radiography is a fundamental part of veterinary practice. Successful imaging depends upon correct patient positioning.

Outline the general rules that must be adhered to when positioning a patient for radiographic imaging. (10 marks)

b. Besides x-ray, there are five other imaging techniques that are used on a regular basis within veterinary medicine. Two of these techniques are Magnetic Resonance Imaging (MRI) scanning and Computer Tomography (CT) scanning. Describe five advantages and disadvantages of MRI scanning when compared to CT scanning.

You will be awarded 5 marks for each advantage/disadvantage. (25 marks)

c. For each of the following animals and body areas, describe the correct positioning for taking the clearest x-ray. Mention any special precautions that may be necessary:

i. Dog – hindlimb tibia, hock and paw. (5 marks)

ii. Horse – tarsus (hock). (5 marks)

iii. Small tortoise – body cavity. (5 marks)

Total: 50 marks
Question 3

a. When a veterinary suspects a medical disorder in an animal they will generally turn to laboratory testing techniques to confirm diagnosis. For some diseases and disorders this will include urinalysis.

List the three main characteristics of urine and for each describe at least one of the main abnormalities that would be indicate the presence of a disease or disorder. For each abnormality named, include the cause.  

(15 marks)

b. Hereditary diseases are termed congenital and a number of these can now be identified by molecular genetic screening. Identify the type of sample needed to carry out these tests and name one hereditary disorder that affects cats.  

(5 marks)

Total: 20 marks