ROYAL COLLEGE OF VETERINARY SURGEONS

STATUTORY EXAMINATION FOR MEMBERSHIP

Production Animals

PAPER 2
3 hours
Day Month Year

This examination question paper is in two sections – Section A and Section B. Each section carries 50% of the total marks available for this examination paper and candidates are advised to allocate their time accordingly.

Within questions percentages in brackets are used to indicate what proportion of the marks for that question has been allocated to a particular part or sub-section of the question.

*Candidates should answer **THREE** questions from Section A and should attempt **ALL** questions in Section B.*

Candidates should start each answer on a new answer sheet and write the question number in the margin of each sheet used.

SECTION A *(answer **either** (a) **or** (b) from each of the 3 pairs of questions)*

1(a) A client contacts you a month after he has turned out his dairy cattle to permanent pasture, because of reduced milk yield. Approximately 15% of his lactating cows have shown a marked drop in milk production to less than 20% of their expected yield. Individual cows then stage a slow recovery, but most fail to reach their original yield, and he has had to dry off several early.

- What factors might be involved? (50%)
- Describe how you would approach your investigation of this problem (50%).

OR

1(b) A farming client of your practice rears his own heifer replacements, together with an equal number of beef calves bought from a local market at 1-2 weeks of age. During late winter, several of his younger pre-weaned calves suffer from an outbreak of severe diarrhoea and a resulting growth check. The calves are reared in mixed groups, and bucket-fed powdered milk replacer. Both Rotavirus and *Cryptosporidium parvum* are isolated from several of the faecal samples.

- Describe firstly how you would treat the affected calves (60%).
- What advice would you give to the farmer on how to prevent further cases occurring? (40%)

2(a) The owner of a flock of 200 ewes reports that six animals have aborted two weeks before lambing was expected to start.

- List the important infectious causes of abortion in sheep in the UK (30%).
- Describe in detail how you would investigate the problem (35%).
- How would you advise the farmer about the management of the flock, both now and in future years? (35%)

continues overleaf

OR

2(b) A dairy farmer seeks your advice about synchronising oestrus and ovulation in a group of 35 fifteen-month-old Friesian/Holstein heifers, with a view to using fixed time Artificial Insemination (AI).

- Describe the method you would recommend (30%).
- Discuss the physiological principles behind the method that you have described (40%).
- Comment on the type of bull you would recommend and the recommended body condition of the heifers (30%)

3(a) Describe the clinical syndromes that are caused by *Erysipelothrix rhusiopathiae* (Swine erysipelas) infection in pigs (50%).
How may these conditions be treated and prevented on the modern pig farm? (50%)

OR

3(b) During a visit to your practice to pay his bill, a local pig farmer mentions that he has had some litters with only 6 to 7 piglets born alive. In addition to this, piglets are dying in the first few days of life.

- Describe how you would investigate the reasons for this poor level of productivity (50%)
- Outline control strategies for any factors that you suspect may be responsible (50%).

SECTION B *(answer **all** questions)*

1. List the diseases of cattle for which a vaccine is available in the UK (50%).
Describe the vaccination regime for **ONE** of them (50%).

2. Briefly describe the clinical signs of Psoroptic Mange in sheep (Sheep Scab) (50%).
Outline how you would control this disease in the UK (50%).

3. Name **three** avian species, other than the domestic fowl, that can contract Newcastle disease (fowl pest) (30%).
List the common clinical signs and post-mortem lesions associated with the disease (50%).
How is the vaccine administered to protect susceptible species administered? (20%)

4. What is the cause of pseudopregnancy in the doe goat? (40%)
What methods would you use to differentiate from a true pregnancy? (30%)
Describe how you would treat it (30%).

5. List the major pathogens that are implicated in outbreaks of respiratory disease in housed fattening pigs in the UK (50%).
Outline the measures available to the farmer to control **one** of those listed (50%).

6. What are the clinical signs in cattle associated with infestation with *Ostertagia ostertagi*? (50%)
How can this parasite be controlled in the UK? (50%)

7. Outline the technique you would use to provide local analgesia for the following surgical procedures:
   - Amputation of a digit from a dairy cow (35%)
   - Correction of left displacement of the abomasum in a cow (35%)
   - Disbudding a young goat (30%)

8. List the factors that can affect milk protein and butterfat levels in dairy cows.

9. Write short notes on the value of dipping the teats of dairy cows.

10. With the aid of simple annotated diagrams, explain the anatomical relationships which arise in the bovine abdomen, when the abomasum is normally sited, when it is displaced to the left, and when it is displaced to the right.
