THE ROYAL COLLEGE OF VETERINARY SURGEONS

STATUTORY EXAMINATION FOR MEMBERSHIP

EXAMINATION QUESTION PAPERS

1999 MEDICINE WRITTEN EXAMINATION QUESTION PAPER (3 HOURS)

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

1(a) An eight-year-old Cavalier King Charles Spaniel bitch is presented with a worsening cough of some weeks duration. It is the only dog in the household and is taken for two short walks daily; the owner feels the dog has ‘slowed up’ recently and tends to pant a lot, especially if excited. It is slightly overweight. Discuss how you would investigate this case, the most likely diagnoses and the management of one of these.

OR

1(b) A litter of four-week-old kittens born to a Siamese queen in a breeding colony of five cats has developed ocular and nasal discharges and stopped feeding. The queen appears healthy. Discuss the possible causes and how you would manage the problems.

2(a) The owner of a six-year-old Corgi bitch complains that it is passing small amounts of urine frequently, including inside the house. The bitch appears uncomfortable when passing urine but is otherwise well. A previous episode some weeks ago responded to treatment (details unknown). Discuss the possible causes, your investigation and management of the case.

OR

2(b) Laminitis remains one of the commonest clinical syndromes seen in grazing ponies in the United Kingdom. Describe the aetiology, treatment and prevention of this condition.

3(a) A client intends to set up a large calf rearing unit on his farm using both bought-in as well as home-produced calves. He asks you for advice on preventing enzootic pneumonia in the new unit. List the causes of enzootic calf pneumonia and discuss the various measures available to the farmer in order for him to prevent or minimize this disease.

OR

3(b) A dairy farm client with a 150 cow herd has managed to bring the somatic cell count in the bulk milk down to a low level, but his herd, which is winter housed in cubicles, is having a worrying increase in cases of mastitis due largely to both *Escherichia coli* and *Streptococcus uberis*. Calving occurs throughout the year but the majority of cases of mastitis occur between November and April. Discuss your approach to helping your client bring this problem under control.

SECTION B (answer all questions)

1. Briefly describe the radiographic technique for the investigation of possible pulmonary metastatic disease in dogs.

2. List the haematological features of non-regenerative anaemia in dogs. Give two possible causes.
3. List the causes of cachexia (weight-loss) in the older cat, in an order that indicates their relative frequency in the UK.

4. Write short notes on *Toxoplasma gondii* infection in dogs and cats.

5. Write short notes on sarcoptes infestation in dogs.

6. How would you treat and prevent twin-lamb syndrome (pregnancy toxaemia) in sheep?

7. Write short notes on atrophic rhinitis in pigs.

8. Describe the diagnosis, treatment and prevention of joint ill in calves.

9. How would you diagnose and then treat a case of acute salmonellosis in an adult horse?

10. Write short notes on digital dermatitis in dairy cattle.

**1999 SURGERY WRITTEN EXAMINATION QUESTION PAPER (3 HOURS)**

1(a) List the steps you would take in the investigation of a swollen carpal joint in an adult dog and explain the reasons for your method. List the treatment options for osteoarthritis in this joint. How would you decide which treatments to use? **OR**

1(b) Describe your investigation of incontinence in a 1-year-old female entire Labrador retriever. List the treatments you might employ for the conditions you describe.

2(a) Describe the clinical signs, diagnosis, metabolic sequelae and treatment of right dilation and torsion of the abomasum in a valuable dairy cow. **OR**

2(b) Describe, in detail, how you would investigate an 8-year-old steeplechaser gelding suspected of being a “roarer”. Discuss the management options for left recurrent laryngeal neuropathy in this case.

3(a) Describe the techniques of skin grafting which might be used to cover a large deficit over the medial aspect of the stifle in the dog or cat. **OR**

3(b) “Puncture wounds are potentially more serious than lacerated wounds.” Discuss this statement using examples of such wounds in horses to support your argument.

**SECTION B (answer all questions)**

1. List the drugs, gases and delivery system you would employ for the entire anaesthetic management of a routine ovariohysterectomy in a healthy bitch weighing 4 kg.

2. What clinical signs would make you suspect that a horse had gastric rupture? Describe how you would confirm your diagnosis.

4. Describe how you would radiograph a horse suspected of having apical infection of its right fourth upper cheek tooth (first molar). What problems might you encounter and how would you overcome them?

5. List 3 essential principles of fixation for an articular fracture. Draw a diagram to indicate the method of fixation you would employ for a fracture of the lateral part of the distal humeral condyle.

6. List the possible complications following castration in horses. Describe how you would treat one of the complications you mention.

7. List the situations in which perioperative antibiotics are required. Describe the method of administration.

8. Outline the anaesthetic technique you would employ for amputation of a lateral hind digit in a dairy cow. Indicate any advantages or disadvantages compared to other techniques which could be used.

9. List the principal radiographic features of osteosarcoma. List the treatments available. Which treatment would you select in the cat?

10. A three-year-old Thoroughbred colt is found to be lame on its left fore leg after completing a training session on the gallops. When you examine it 2 hours later it is reluctant to bear weight on the leg and there is distension of the metacarpophalangeal joint capsule. List the conditions which could be involved and describe how you would investigate the case.

1999 REPRODUCTION WRITTEN EXAMINATION QUESTION PAPER

1(a) A seasonally-calving Friesian-Holstein herd comprising 250 milking cows, with an average yield of 8500 kg per lactation, has the following fertility indices for the last breeding year:

- Mean calving-to-first-service interval - 82 days
- Mean calving-to-conception interval - 106 days
- First service pregnancy (conception) rate - 52%
- Overall pregnancy (conception) rate - 49%

Comment on these values, particularly in relation to maintaining a seasonal calving pattern, and discuss strategies for improvements.

OR

1(b) A group of 30 cross-bred heifers have been running with a large Charolais bull until about five months ago. The first two that have very recently calved have suffered from severe dystocia due to foetomaternal disproportion. Describe how you would manage the parturitions in the remaining 28 animals, discussing the reasons for your decisions.

2(a) Your advice is sought by the owner of a five-year old proven Cocker Spaniel dog which has successfully sired 15 litters of puppies over a three-year period, but over the last nine months, three bitches that he has mated have failed to whelp. Describe how you would investigate the apparent loss of fertility.

OR

2(b) Discuss the significance of a vulval discharge from an apparently healthy entire bitch.
3(a) The owner of a five-year old maiden Thoroughbred mare requests your advice and help in ensuring that she foals as early as possible in the year 2001. Describe the measures that you would use to achieve this objective, discussing the physiological mechanisms involved.

OR

3(b) In May 1999 you are consulted by the owner of a flock of 350 mule ewes who wants them to lamb in mid-to late December 1999. Describe how this might be achieved and discuss the rationale to support your recommendations.

SECTION B (answer all questions)

1. List the practical reasons for the premature induction of farrowing. Outline a suitable protocol.

2. What methods can be used to synchronise oestrus in sows and gilts? Outline the physiological mechanisms involved.

3. Define cystic ovarian disease in cattle. Briefly describe how it is treated.

4. What are the clinical signs of pseudopregnancy in goats? How can it be treated?

5. What methods can be used in the bitch to (a) postpone oestrus, (b) prevent oestrus? Outline the physiological mechanisms involved.

6. Briefly describe the oestrous cycle in the queen cat.


8. List the venereally transmitted diseases in the horse. Briefly outline their effects on the reproductive process.

9. What is the cause of retained foetal membranes in the mare? Briefly describe how you would treat the disorder.

10. List the commonest infectious agents causing foetopathy and abortion in cattle in the UK. Briefly outline how one named disease can be contracted.

1999 ANIMAL HEALTH WRITTEN EXAMINATION QUESTION PAPER (3 HOURS)

1(a) What do you consider are the most important features of feeding and management strategies for Friesian/Holstein cows, calving between October and December, housed indoors between October and April in the winter, grazed at pasture in the summer and yielding 7500 litres on average per lactation if a calving index of 365-370 days is to be achieved and the incidence of metabolic disorders is to be minimized?

OR

1(b) Your advice is sought by a farmer who tells you that he is disappointed by the lambing percentage of 140 he has recorded for his flock of 300 Mule ewes. Explain how you would investigate this perceived problem, detailing the data you would seek to obtain from the farmer.
2(a) In natural conditions the horse is a free-ranging (browsing) trickle feeder. What does this mean and what are the implications for the health and management of horses kept in a riding establishment?  

OR

2(b) The owner of a newly established pig breeding and fattening unit asks your advice on how to deal with animals destined for casually slaughter. Outline what you would tell this farmer, including reference to relevant legislation.

3(a) How may the number of micro-organisms on the carcass surface be reduced after dressing is completed, and the multiplication of the survivors controlled?  

OR

3(b) List the microorganisms that might be associated with milk borne food poisoning in the human population. Describe the principal features of an epidemic caused by one of the organisms in your list, and outline the control measures that can be adopted to prevent further outbreaks of disease.

SECTION B (answer all questions)

1. Write short notes on hypomagnesaemia in cattle.

2. Describe briefly the differences in dietary nutrient requirements of dogs and cats.

3. In the UK, pig breeding herds housed indoors are expected to achieve a minimum target of 22 piglets weaned per sow per year. List the non-disease factors that can adversely affect this target.

4. List those points on the animal you would appraise in condition scoring cattle on a scale of 0 to 5.

5. Write short notes on housing the artificially reared calf up to 8 weeks of age.

6. A farmer reports that he has found a previously healthy milking cow dead in the field. What action would you take in these circumstances?

7. How may unconsciousness be diagnosed in mammals and birds after stunning in a slaughterhouse?

8. Summarise what steps can be taken to control PSE (Pale Soft Exudative) in pork meat.

9. Describe briefly the approach taken by the Ministry of Agriculture, Fisheries and Food for ‘dealing’ with an outbreak of Foot and Mouth disease in farm livestock in the UK.

10. There is currently considerable concern about the problem of drug resistance in pathogenic bacteria. What are the responsibilities of a veterinary practitioner with respect to the dispensing of antibiotic preparations for use in farm livestock?