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

1a. A 12 year old male neutered domestic shorthair cat is presented with a three month history of progressive weight loss and polyuria/polydipsia.

   i) List, in order of priority, the differential diagnoses you would consider for this case.
   ii) Describe how you would investigate this case to establish a definitive diagnosis.

   OR

1b. Describe how you would investigate a young Irish setter dog that is regurgitating. List the differential diagnoses, and describe how you would treat ONE of these conditions.

2a. You receive a phone call from a client of your practice at 6.00pm due to their concern about an 8 year old thoroughbred showjumper. On arrival at the stables, you ascertain that the horse is in considerable pain with what you suspect is intestinal colic.

   Describe your approach to deal with this problem both from the diagnostic point of view as well as the treatment regimes you would consider.

   OR

2b. A six year old cow from a mixed beef and dairy farm within your practice develops diarrhoea which is both copious and projectile. The farmer admits that the cow has been developing this condition for some time and that the expected
milk yield has been dropping for the last few months. The cow is not anorexic, has a normal temperature, pulse and respiration (TPR) and appears bright. The farmer mates his dairy cows with his own Hereford bull and raises all the calves feeding them milk from his dairy herd. His replacement heifers are bought from a local market.

Describe your approach to reaching a diagnosis in this case and the likely differential causes. What advice would you give your client to control/prevent the problem spreading?

3a. A 10 year old entire female dog has been polydipsic, polyuric and losing weight for two weeks. It is now anorexic, vomiting, and ketoacidotic. Diabetes mellitus is diagnosed. List the laboratory abnormalities you might expect to find in this case. Describe how you would manage this patient during the first week after initial diagnosis.

OR

3b. A client has recently decided to give up dairy farming and concentrate totally on intensive beef rearing, using all his available buildings rather than purchasing a new purpose built barn. He routinely buys in 10 calves (at 2-3 weeks old) every week from a local livestock market. During the first year of this operation, his stock, when 3-9 months of age, develop a serious problem due to enzootic calf pneumonia; there is 80% morbidity and 10% mortality. In addition, the surviving calves have a reduced growth rate.

Describe in detail your approach to dealing with this problem, firstly from the therapeutic point of view and secondly from the preventive point of view.

SECTION B (answer all questions)

1. a. List the methods available for measuring blood pressure in cats.
   b. What factors should be considered when interpreting these results?
   c. List three clinical diseases or potential sequelae associated with hypertension in cats.
   d. Name ONE drug that can be used to lower blood pressure in hypertensive cats.

2. What is meant by the term “protein-losing enteropathy”? List its causes and, briefly, describe what clinical signs you might see, and how would you confirm the diagnosis by laboratory testing.

3. Write short notes on the cause, clinical presentation, definitive diagnosis and treatment of copper hepatotoxicosis in Bedlington terriers.
4. **Draw** representative labelled diagrams of lead II electrocardiograms depicting first and third degree heart block and highlight their differences from normal. What is the optimum treatment for third degree heart block?

5. **Briefly** describe the medical management options in dogs for the dissolution and prevention of:
   i) struvite urolithiasis
   ii) calcium oxalate urolithiasis

6. Discuss the treatment options available for the control of laminitis in a 14h pony.

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

8. **List** the parasites that can affect beef cattle in the UK during their first grazing season and describe the control measures for ONE of these parasites.

9. Write short notes on the various measures available to control “foot rot” in grazing sheep.

10. **List** the clinical signs that might lead you to suspect Grass Sickness in an 8 yr old mare. If a presumptive diagnosis of Grass Sickness is made, what advice and help can you give the owner of the mare?

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This examination question paper is in two sections - Section A and Section B.

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

Each section carries 50% of the total marks available for this examination paper and candidates are advised to allocate their time accordingly.

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)

1a. A 4kg, eight year old Yorkshire Terrier is presented with a closed, minimally displaced transverse fracture of the distal one-third of the radius and ulna. The fracture was caused by her jumping off a table. There are no other injuries.

   a. Which type of fracture repair is MOST suitable for this fracture?
   b. List the methods of fracture repair that are NOT suitable for repair of this fracture.
   c. Briefly explain your reasons.

OR

1b. A five month old Boxer puppy has been anorexic for 48 hours. It has vomited several times during the previous 24 hours and is now depressed. Abdominal palpation is painful and there is the suspicion of an abdominal mass. A piece of string is wrapped around the frenulum of the tongue and passes out of sight down the pharynx.

   a. List the laboratory and other tests you would like to do and what you would expect to learn from each.
   b. What is the likely cause of the clinical signs?
   c. How would you treat this dog?

continued overleaf
2a. Discuss the complications which may arise from the castration of a mature horse. What measures would you take to minimise the possibility of the complications which you describe?

OR

2b. You are called to examine a dairy cow which has developed severe lameness and reluctance to bear weight on a hind limb. Discuss the potential causes of this lameness and how you would attempt to reach a diagnosis. Describe in detail how you would treat ONE of the conditions which you mention.

3a. A 7 year old West Highland White terrier is presented with a history of dysuria and haematuria for 7 days. In the last 24 hours attempts at urination have been unproductive. The dog is dull, mildly dehydrated and has a distended abdomen.

a. What major metabolic disturbances might have occurred in this dog?

b. What is your tentative diagnosis?

c. What are your initial management priorities and how would you achieve them?

d. How would you confirm your tentative diagnosis?

OR

3b. A 5 year old horse is presented to you for the investigation of a foul-smelling unilateral nasal discharge. What are the potential causes of this complaint? Discuss how you would investigate this horse to achieve a definitive diagnosis.

SECTION B (answer all questions)

1. List the methods you might employ to limit surgical blood loss in animals.

2. a. How may the risks from inhalational agents be minimised in an operating theatre?

b. What are the risks associated with the use of nitrous oxide?

3. a. List the advantages and disadvantages of performing an ovariohysterectomy in a bitch prior to her first season (oestrus).

b. When is it most appropriate to perform this surgery as an elective procedure in a mature bitch?

c. List five possible complications of ovariohysterectomy.

4. a. Briefly describe the radiographic technique for the evaluation of the pelvis for the British Veterinary Association/Kennel Club (BVA/KC) Hip Dysplasia Scheme.

b. List the anatomical features seen on the radiographs that are evaluated under this Scheme.

continued on next page
5. An eight year old Irish Wolfhound presents with a severe lameness of its right forelimb. The lameness has been getting worse over the previous four weeks. A firm, warm swelling is palpable involving the distal radial metaphysis.
   a. What is the most likely diagnosis?
   b. How would you confirm this and what would you expect your investigations to show?
   c. What treatment options exist?

6. Briefly, with the aid of diagrams, describe how you would treat an uncomplicated umbilical hernia in a horse.

7. Explain why horses are sometimes susceptible to upward fixation of the patella.

8. Draw a labelled diagram showing the component parts of a loaded X-ray cassette.

9. Briefly describe the technique which you would use for end-to-end anastomosis of the small intestine in a horse commenting upon your choice of suture pattern and suture material.

10. Summarise the technique which you would employ to enucleate the eye of a cow. Why might this surgery be indicated?

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This examination question paper is in two sections - Section A and Section B.

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

Each section carries 50% of the total marks available for this examination paper and candidates are advised to allocate their time accordingly.

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)

1a. Describe six problems that may be encountered in a cow up to 48 hours after calving. Outline your treatment in each case.

OR

1b. Discuss the differential diagnosis of a cow not seen bulling 45 days post partum.

2a. A five year old bitch is presented to you because she is still bleeding about 23 days after the first sign of pro-oestrus. List the possible causes of the problem. Describe what methods you would use to differentiate the various possibilities. Select ONE of the conditions and discuss your diagnosis and treatment.

OR

2b. The owner of a valuable bitch wants to import semen to inseminate her. Briefly discuss the steps involved in the process to optimise the chances of obtaining a pregnancy.

3a. Describe the endocrinological changes which take place in the cow that result in parturition.

OR

3b. Describe the various methods for oestrus synchronisation and advancement of the breeding season in the ewe. Outline the physiological mechanism of each.
SECTION B (answer all questions)

1. Describe the predisposing factors for vaginal prolapse in the ewe and the various methods of correction.

2. List the various methods of pregnancy diagnosis in the mare and the times at which they are most appropriately used.

3. Outline your approach to the treatment of RFM (retained foetal membranes) in the mare.

4. List, in order, the layers of tissue that are incised in a caesarean section in the cow. Describe one anaesthetic approach.

5. Outline the possible reasons for a bull to mount but fail to achieve intromission.

6. A female cat (queen) returns to heat about 21 days after each of her last 3 matings. How would you proceed in an attempt to get her pregnant?

7. What types of ovarian cysts are found in cattle? How would you differentiate them?

8. Outline your approach to a pig herd with an average weaning to first service interval of 20 days.

9. Describe the condition of subinvolution of the placental sites (SIPS) in the bitch.

10. Briefly describe the physiology of the oestrous cycle and gestation in the goat.

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This examination question paper is in two sections - Section A and Section B.

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

Each section carries **50%** of the total marks available for this examination paper and candidates are advised to allocate their time accordingly.

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)

1a. A sheep farmer states that his 14-week-old lambs have diarrhoea and are failing to thrive despite them having been treated with a benzimidazole and then a levamisole-based drench. How would you investigate the problem and what would you recommend for a long-term sustainable worm control plan for the farm?

**OR**

1b. Discuss respiratory problems in weaner/fattening/breeding pigs. Describe how you would investigate on an individual/herd level. Give examples of how to prevent and treat these conditions.


2a. Outline the advice that you would give to farming clients so that they comply with the Veterinary Medicines Directorate’s ‘Code of Practice on the Responsible Use of Animal Medicines on the Farm’.

**OR**

2b. Describe the functions of the Meat Hygiene Service in relation to the Food Standards Agency, the Department for Environment, Food and Rural Affairs (DEFRA), the control of Specified Risk Material, cattle traceability, the Over 30 Months Slaughter Scheme and the Hygiene Assessment Scheme.

*continued overleaf*
3a. Discuss the factors that influence the welfare of cattle, sheep and pigs during transport and marketing.

OR

3b. List five zoonotic diseases that may be contracted from ruminant species by school children who visit a working farm in the UK. What advice would you give to the farmer for minimising the risk of them contracting the infection?

SECTION B (answer all questions)

1. Briefly discuss the control of skin irritation in sheep.

2. List the common reasons for a marked rise in the Bactoscan (Total Bacteria Count) in the bulk milk from a dairy herd.

3. List the important aspects of the management of dairy cows from drying off until immediately before they are due to calve.

4. Summarise the most important factors in controlling infection with Fasciola hepatica (liver fluke) in cattle.

5. A dairy farmer is planning to build a new cubicle house and asks you for your advice. List the features that you would want to include in the building in order to maximise cow comfort and minimise the incidence of lameness and mastitis.

6. Summarise the veterinarian’s responsibilities when he or she prescribes the inclusion of a prescription only medicine (POM) in animal feed.

7. Define what is meant by the term ‘Approved Disinfectant’. Outline the precautions that must be taken when using formaldehyde to fumigate a poultry house.

8. Describe briefly the pathological features of generalised Mycobacterium bovis infection in badgers (Meles meles) and indicate why these animals may pose a threat for cattle.

9. Minced beef hamburgers sold in fast-food restaurants may act as a source of salmonellas for humans. Summarise, preferably in tabular form, the critical control points that should be applied to minimise the risk from the time that the animal arrives at the slaughterhouse until the sale of the cooked meat product.

10. A pet cat or dog requires a certificate before it can enter the UK without quarantine. List, in the correct order, the four procedures that a veterinary surgeon has to follow under the ‘PETS’ scheme before a certificate can be issued. Summarise the information that this document must contain in order for it to be valid.

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