

THE ROYAL COLLEGE OF VETERINARY SURGEONS

DIPLOMA IN SMALL ANIMAL MEDICINE

TUESDAY 30 JULY 2002

PAPER I

(3 hours)

Candidates are required to answer **ALL EIGHTEEN** questions.

Allow 10 minutes per question.

Please start the answer to each question on a separate sheet; failure to do so could lose you marks.

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1. Write **short notes** on the possible causes and treatment of atrial fibrillation in a two year-old Irish Wolfhound.
 2. What is an immunoassay? **Outline** how a typical immunoassay is performed and how does it differ from an enzymatic (ELISA) assay. Give **THREE** examples used in small animals.
 3. **Briefly** discuss the essential nutrient requirements that are specific for cats.
 4. **Briefly** describe the clinical signs and diagnosis of **TWO** of the following:
 - a. *Pneumocystis carinii* infection in the dog
 - b. *Bartonella henselae* infection in the cat
 - c. *Borrelia burgdorferi* infection in the dog.
 5. **Briefly outline** the usefulness and limitations of tests that aid the diagnosis of chronic pyelonephritis in the dog and cat.
 6. **Briefly** describe the advantages and disadvantages of the following agents used in the treatment of systemic fungal infections in the dog:
 - a. Liposomal amphotericin B
 - b. Itraconazole
 - c. Fluconazole.

P.T.O. for questions 7 – 18

7. **Briefly** compare and contrast the aetiology, clinical presentation, diagnosis and treatment of acromegaly in the dog and cat. You may use a table if you wish.
 8. *"Measurement of serum amylase in the dog and cat is a common diagnostic test but is of little diagnostic value."* What is your view in support or otherwise of this statement?
 9. Write **short notes** on the diagnosis, treatment and prognosis of multiple myeloma in the dog.
 10. Write **short notes** on the toxic effects, diagnosis and specific treatment options for **TWO** of the following poisons:
 - a. Ivermectins in dogs
 - b. Ethylene glycol in dogs
 - c. Paracetamol in cats.
 11. Write **brief notes** on the mechanism of action, clinical use and side effects of the following antineoplastic agents:
 - a. Doxorubicin
 - b. Carboplatin
 - c. Vincristine.
 12. Compare and contrast the diagnosis and management of the following conditions in the dog:
 - a. Primary hyperparathyroidism
 - b. Hypercalcaemia of malignancy
 - c. Renal secondary hyperparathyroidism.
 13. **Briefly** summarise the clinical features and diagnosis of pancreatitis in the cat.
 14. Describe the clinical features, diagnosis and treatment of *Leishmania spp* infection in dogs.
 15. What is the significance of mycobacterial infection in dogs and cats?
 16. **Briefly** summarise the pathogenesis of immune-mediated haemolytic anaemia in the dog and cat.
 17. **Briefly** discuss the treatment and prognosis of the following:
 - a. Gastrointestinal lymphoma in the cat
 - b. Chronic myeloid leukaemia in the dog
 - c. Insulinoma with liver metastases in the dog.
 18. What is your approach to the diagnosis and management of chylothorax in a five-year-old female Afghan Hound?
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THE ROYAL COLLEGE OF VETERINARY SURGEONS

DIPLOMA IN SMALL ANIMAL MEDICINE

TUESDAY 30 JULY 2002

PAPER II

(3 hours)

Candidates are required to answer **FOUR** of the following **five** questions.

Allow 45 minutes per question.

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1. Hypothyroidism is said to be the most common endocrine disorder of dogs, but is often challenging to diagnose.

Discuss the causes, clinical signs and diagnosis of this condition in the dog. Specifically mention any areas of current controversy.

2. Discuss the use of electro-diagnostics in the diagnosis of neuromuscular diseases of the dog and cat. Illustrate your answer with appropriate case examples.

3. *“Renal transplantation is an acceptable treatment option for the management of chronic renal disease in the cat.”* Discuss.

4. How does the gut prevent inappropriate immune responses to luminal antigens? Discuss how recent understanding of the regulation and development of mucosal inflammatory responses help justify our management of inflammatory bowel diseases in the dog and cat.

5. A six year-old male Labrador Retriever has a history of haematuria of 5 weeks duration. **Outline** your differential diagnoses and describe how you would investigate this case to reach a definitive diagnosis.

THE ROYAL COLLEGE OF VETERINARY SURGEONS

DIPLOMA IN SMALL ANIMAL MEDICINE

THURSDAY 17 JULY 2003

PAPER I
(3 hours)

Candidates are required to answer **ALL EIGHTEEN** questions.

Allow 10 minutes per question.

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- 1) Write **short notes** on the mechanisms of action and clinical uses in dogs and cats of:
 - a) S-adenosylmethionine
 - b) Zinc sulphate
 - c) Eicosapentaenoic acid.

- 2) Describe **in detail**, the specific areas of haemostasis tested by **each** of the following:
 - a) Prothrombin time
 - b) Activated partial thromboplastin time
 - c) Buccal mucosal bleeding time
 - d) Activated clotting time.

- 3) **Briefly** describe the clinical presentation, pathogenesis, diagnosis, treatment and prognosis of eosinophilic bronchopneumonopathy in dogs.

- 4) What are the definitions of 'antibiotic responsive diarrhoea' and 'small intestinal bacterial overgrowth' in dogs? **Outline** current opinion of the clinical importance, diagnosis and treatment of these conditions.

- 5) Write **short notes** on:
- a) Bordetella infection in the cat
 - b) Feline infectious anaemia
 - c) Neospora infection in the dog.
- 6) Following vaccination, a dog has an anti-rabies virus titre of 0.5IU.
- a) How is this figure derived?
 - b) **Briefly** discuss the weaknesses of using a figure of 0.5IU to denote a protective titre.
- 7) Compare and contrast the use of mexilitene and sotalol in the management of ventricular arrhythmias in dogs.
- 8) A variety of chemotherapy protocols are now available for dogs with multicentric lymphoma. **Outline** the choices available and **briefly list** the advantages and disadvantages of each protocol you discuss.
- 9) **List** the dietary nutrient recommendations that have been suggested in the management of hepatic lipidosis in cats. What is the justification for each recommendation listed?
- 10) Write **short notes** on the role and metabolism of the following minerals:
- a) Manganese
 - b) Copper
 - c) Iron.
- 11) Write **short notes** on the use of interferons in small animal medicine.
- 12) What is haemoglobin glutamer-200 (bovine) (Oxyglobin®)? **Outline** its mechanism(s) of action, uses, advantages and disadvantages in dogs and cats.
- 13) Compare and contrast the incidence, causes and treatment of magnesium ammonium phosphate (struvite) and oxalate calculi in the cat.

- 14) Describe the clinical signs, diagnosis and treatment of:
- a) Chiari malformation in the Cavalier King Charles Spaniel.
 - b) Labrador retriever myopathy.
 - c) Feline dysautonomia.
- 15) Compare and contrast the actions, indications and potential side-effects of cimetidine, ranitidine and omeprazole.
- 16) "*Trilostane is the only safe treatment for pituitary dependent hyperadrenocorticism in dogs*". What is your view in support or otherwise of this statement?
- 17) A serum sample taken from a 5 year-old terrier is visibly opaque and lipaemic after sitting at room temperature for a few hours. What class or classes of lipid is/are present? How could you categorise it/them further? What are the possible causes of lipaemia in this dog?
- 18) Compare and contrast the physiological effects and potential clinical uses of brain (B-type) natriuretic peptide and atrial natriuretic peptide in the dog.
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THURSDAY 17 JULY 2003

PAPER II

(3 hours)

Candidates are required to answer **FOUR** of the following **five** questions.

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1. Discuss the potential causes, diagnosis, treatment and prognosis of acute renal failure in the cat.
 2. A four year-old male Labrador retriever presents in status epilepticus. Describe your emergency treatment of this dog. **Outline** your differential diagnoses and describe how you would investigate this case to reach a definitive diagnosis.
 3. Discuss your approach to the diagnosis and management of cardiomyopathy in the cat.
 4. A one year-old German Shepherd dog presents with ascites. Further investigations indicate the cause to be portal hypertension.
 - a) What clinical, clinicopathological and diagnostic imaging findings are characteristic of portal hypertension?
 - b) **Outline** your differential diagnoses for portal hypertension in this dog.
 - c) **Outline** the pathophysiology of ascites formation in this case.
 - d) How would you investigate this case further to reach a definitive diagnosis?
 - e) What non-specific treatment would you consider at this stage?
 5. Compare and contrast the causes, diagnosis and treatment of systemic hypertension in the dog and cat.
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THE ROYAL COLLEGE OF VETERINARY SURGEONS

DIPLOMA IN SMALL ANIMAL MEDICINE

WEDNESDAY 14 JULY 2004

PAPER I
(3 hours)

Candidates are required to answer **ALL EIGHTEEN** questions.

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1.
 - a. **Briefly** describe why cats are more prone to taurine deficiency than dogs.
 - b. **List THREE** syndromes that can occur in the cat due to taurine deficiency.
2. **Briefly** describe the appearance and significance of the following and give examples of the conditions in which they might be seen:
 - a. Heinz bodies in a feline blood smear.
 - b. Schistocytes in a canine blood smear.
 - c. Spherocytes in canine blood smear.
 - d. Nucleated red blood cells in a feline blood smear.
3. **List FIVE** causes of hypernatraemia.
4. **Briefly** discuss the clinical pathological serum tests used for the diagnosis of pancreatitis in the dog and cat.
5. **Briefly** discuss the mechanisms by which acidosis is caused by the following:
 - a. small bowel diarrhoea
 - b. diabetic ketoacidosis
 - c. ethylene glycol (anti-freeze) ingestion
 - d. chronic renal disease.

6. How are clotting factors affected by anticoagulant rodenticides, and how may this type of toxicity be identified using laboratory tests?
7. **List FIVE** of the potential adverse effects that may occur from a loss of functional body protein in protein-calorie malnutrition.
8. Write **short notes** on **EACH** of the following:
- The mode of action and major complications associated with azathioprine therapy in dogs.
 - Why is azathioprine rarely used in cats?
 - Outline** your management of a dog showing signs of severe bone marrow toxicity.
9. A 7 year-old, female neutered Collie presents with a single episode of unilateral epistaxis. Radiographs show a destructive lesion in the left nasal chamber that, on biopsy, is shown to be a nasal adenocarcinoma.
- List FOUR** other commonly reported tumours of the nasal chamber.
 - List** the treatment options that could be offered to this owner.
 - Briefly** describe the potential side effects and prognosis for **EACH** treatment listed.
10. A 9 year-old cat has been on long-term oral prednisolone (5mg SID) for allergic airway disease but is now showing significant signs of corticosteroid toxicity.
- What are corticosteroid withdrawal syndromes, what types have been described and how are they managed?
 - Without oral prednisolone clinical signs recur, **briefly** describe alternate therapies that you would consider.
11. A 10 month-old Birman kitten in a single cat household dies of feline infectious peritonitis (FIP).
- Outline** the current thoughts on the pathogenesis of FIP.
 - What advice would you give the owner who would like to purchase a replacement pedigree kitten?

12. **Draw a diagram** of the various inputs into the vomiting centre. **Outline** the mode of action of the following antiemetics:
- a. Metoclopramide
 - b. Chlorpromazine
 - c. Erythromycin
 - d. Ondansetron.
13. Write **short notes** on:
- a. sporotrichosis in cats
 - b. Feline immunodeficiency virus (FIV) vaccination in cats.
14. a. **List** the haemodynamic effects of atrial fibrillation.
- b. What is the action of the following treatments to control atrial fibrillation?
- i) digoxin
 - ii) sotalol.
- c. **List** the criteria that you would use to denote successful management of atrial fibrillation.
15. **Briefly** discuss the complications that may occur following Babesia canis infection in dogs.
16. **Briefly** discuss the classification of diabetes mellitus in the cat. **List** the factors involved in the pathogenesis of the most common type of feline diabetes.
17. **List** the advantages and disadvantages of echocardiography over radiography for the evaluation of heart disease.
18. **Briefly** describe the clinical signs and discuss the diagnosis of canine granulomatous meningoencephalitis. **List** the treatment options.
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THE ROYAL COLLEGE OF VETERINARY SURGEONS

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WEDNESDAY 14 JULY 2004

PAPER II

(3 hours)

Candidates are required to answer **FOUR** of the following **five** questions.

Allow 45 minutes per question.

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1. **List** the nutritional (dietary modifications and potential supplements) and medical treatments for canine chronic hepatitis, and give the (possibly theoretical) rationale for **each** treatment.
 2. Discuss the pathogenesis, and list the clinical signs, of immune mediated glomerulonephritis in the dog.
 3.
 - a. What criteria would you use to establish a diagnosis of idiopathic inflammatory bowel disease in dogs and cats?
 - b. With reference to the current opinions on the aetiopathogenesis of idiopathic inflammatory bowel disease, how would you manage such a case? Present your arguments in terms of first and second line therapy.
 4.
 - a. **Outline** the pathogenesis of congestive heart failure in dogs.
 - b. How do current therapies address the mechanisms leading to congestive heart failure (CHF)?
 - c. At what stage of disease and in what order would you employ their use in a middle aged Cavalier King Charles Spaniel with a history of chronic, progressive, degenerative mitral valve disease?
 5. Discuss the clinical signs, diagnosis and treatment of hyperadrenocorticism in the cat. **List** the advantages and disadvantages of any screening tests you might use.
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THE ROYAL COLLEGE OF VETERINARY SURGEONS

DIPLOMA IN SMALL ANIMAL MEDICINE

WEDNESDAY 13 JULY 2005

PAPER I

(3 hours)

Candidates are required to answer **ALL EIGHTEEN** questions.

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1. **Briefly** describe the epidemiology and treatment of methicillin-resistant Staphylococcus in dogs and cats.
 2. **Briefly** describe the retinal changes that you would expect to see in a case of chorioretinitis. **List TEN** systemic diseases that are commonly associated with chorioretinitis. Your examples should include at least **THREE** conditions that affect cats and **THREE** conditions that affect dogs.
 3. **Briefly** describe the clinical presentation, diagnosis and treatment of a dog with erythema multiforme.
 4. Write **short notes** on pulmonary hypertension in the dog.
 5. **List** specific tests that may be used in the diagnosis of hyperadrenocorticism in cats. For **each** test **briefly outline** their clinical utility.
 6. **Briefly** describe the approach to diagnosis and management of nasal carcinoma in the cat.
 7. What are the relative sensitivities and specificities of the methods available for the diagnosis of gastric carcinoma in dogs?

P.T.O. for Questions 8 - 18

8. What are the indications for the use of doxycycline in cats, and what are its potential side-effects?
 9. **By use of a table**, compare the signs that are seen in central and peripheral vestibular syndrome. What is meant by the term paradoxical vestibular syndrome?
 10. A 6-month-old cat is presented with intermittent epileptiform seizures that are increasing in frequency. **List** your differential diagnoses for this case, ranking the **TWO** most likely diagnoses.
 11. What antibiotics would you choose to provide against Gram positive and Gram negative aerobes and anaerobes in a dog that has septic peritonitis following surgical repair of a bowel perforation? Explain the rationale behind your choices.
 12. Write **short notes** on paraneoplastic skin diseases of cats.
 13. Therapy of dysuria and incontinence often involves medications that modify micturition. **List FIVE** of these medications (by generic name, not by trade name), and **briefly** (several words only) describe their mechanism of action and **list ONE** side effect for **each**.
 14. **Outline** the rationale behind dietary changes that should be considered for the management of diabetes mellitus in dogs and cats.
 15. **List FIVE** disorders that are not primarily hepatic diseases that may cause a reactive secondary hepatopathy and affect serum hepatic test results, and describe **briefly** how the disease affects the liver.
 16. **Briefly** describe the pathogenesis and clinical utility of microalbuminuria testing.
 17. What are the definitions of probiotics and prebiotics? **Briefly outline** the purported beneficial effects of each on the GI tract.
 18. **Briefly** describe the diagnostic approach to polycythaemia in the dog.
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THE ROYAL COLLEGE OF VETERINARY SURGEONS

DIPLOMA IN SMALL ANIMAL MEDICINE

WEDNESDAY 13 JULY 2005

PAPER II

(3 hours)

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1. Describe the pathophysiology, causes and treatment of Heinz body anaemia in the cat.
 2. **Outline** current concepts of the pathophysiology of feline allergic airway disease. Discuss its diagnosis and management.
 3. **Compare and contrast** the pathophysiology, clinical findings and management of heart failure associated with cardiomyopathy and aortic stenosis in the Boxer
 4. **Discuss** the methods available for the diagnosis of acute pancreatitis in dogs, highlighting their reported sensitivities and specificities.
 5. **Discuss** the drugs that are available for immunosuppression in dogs and cats, commenting specifically on their modes of action and side-effects.
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THE ROYAL COLLEGE OF VETERINARY SURGEONS

DIPLOMA IN SMALL ANIMAL MEDICINE

MONDAY 10 JULY 2006

PAPER I
(3 hours)

Candidates are required to answer **ALL EIGHTEEN** questions.

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1. You are presented with a one year-old dog that has had two episodes of collapse in the past three weeks; in the intervening periods the dog has been well. ECG reveals widened QRS complexes. **List** the causes of a widened QRS complex on an ECG recording. For **each** cause **briefly describe** the other changes that you would expect to see on the ECG. Which of the causes listed would be your most likely differential diagnosis and why?
2. **Outline** the criteria that you would use to establish a diagnosis of systemic lupus erythematosus.
3. **Write short notes** on:
 - a. Pectus excavatum in cats.
 - b. Flat-chested kittens.
 - c. Spinal dysraphism in cats.
4. In the assessment of canine cardiovascular disease the following diagnostic tests are described. **Write short notes** on their diagnostic value:
 - a. Cardiac troponin I.
 - b. Brain natriuretic peptide.
 - c. Vertebral heart score.

5. You are asked to evaluate a new oral angiotensin converting enzyme inhibitor for use in the management of feline cardiomyopathy. Based on the expected mode of action, **list** the clinical parameters that you would measure to assess:
 - a. Efficacy.
 - b. Safety.
6. **Outline** the motor and sensory innervation of the tongue, and explain how you would assess it during a neurological examination.
7. **List** the known causes of canine megaesophagus and **briefly explain** why prokinetic therapy invariably fails in idiopathic megaesophagus.
8. **List** the indications for the use of trimethoprim-sulpha drugs. What are their potential side-effects?
9. **With the aid of a simple diagram**, show how cobalamin (vitamin B₁₂) is absorbed by dogs and cats. **Write short notes** on the clinical significance of cobalamin deficiency in cats.
10. **Briefly describe** the dermatological changes that you would expect to see in a dog with:
 - a. Zinc-responsive dermatosis.
 - b. Hepatocutaneous syndrome.
 - c. Hypothyroidism.
11. **Compare** the use of trilostane and mitotane in the treatment of hyperadrenocorticism.
12. **Briefly discuss** the roles of dietary sodium and potassium modification in the pathogenesis and treatment of cardiac disease.
13. **Briefly discuss** the clinical signs, clinical pathology changes, diagnosis, treatment and prevention of *Anaplasma phagocytophilum* infection in the dog.

14. Explain how, in the dog, corticosteroids :
 - a. Cause polyuria.
 - b. Increase risk of gastrointestinal ulceration.
 - c. Affect sodium and potassium.
 - d. Affect calcium metabolism.
 - e. Affect lymphocytes.

 15. **Briefly describe** the pathophysiology of anaemia of chronic disease, and how it may be distinguished from iron deficiency anaemia.

 16. **Briefly describe** the pathologic mechanism of glomerulonephritis, and **list THREE** potential underlying causes (diseases).

 17. **List** the common causes of generalized splenomegaly in cats and dogs. Indicate in which conditions you might expect to make a diagnosis on fine needle aspirate with a **brief** description of the cytological changes that you would expect to be reported.

 18. **Briefly describe** the cause, signs, screening test, diagnosis and treatment of copper associated chronic hepatitis in the Bedlington terrier.
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THE ROYAL COLLEGE OF VETERINARY SURGEONS

DIPLOMA IN SMALL ANIMAL MEDICINE

MONDAY 10 JULY 2006

PAPER II

(3 hours)

Candidates are required to answer **FOUR** of the following **five** questions.

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1. **Define** chronic bronchitis in cats and dogs and discuss the current theories for its aetiopathogenesis. **Describe** how you would investigate a patient presenting with lower respiratory tract disease, evaluate its pulmonary function and differentiate between the various disease states.
 2. **Discuss** the importance of *Helicobacter* spp infection in dogs and cats.
 3. **Discuss** the use of non-steroidal anti-inflammatory drugs (NSAIDs) in dogs and cats.
 4. **Describe** the pathophysiology and treatment of hyperparathyroidism due to chronic renal failure in small animals.
 5. Polyuria and polydipsia are common presenting complaints in the dog:
 - a. **Describe** your diagnostic approach to the differential diagnoses of this problem (Explanation of test methodology is **not** required).
 - b. **Describe briefly** how each possible aetiology results in PU/PD.
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THE ROYAL COLLEGE OF VETERINARY SURGEONS

DIPLOMA IN SMALL ANIMAL MEDICINE

MONDAY 9 JULY 2007

PAPER I
(3 hours)

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1. **Outline THREE** medical problems that may occur with the use of trilostane in the dog and **briefly** discuss your solutions to these problems.
 2. Describe the clinical signs, diagnosis and significance of *Bartonella henselae* infection in the cat.
 3. Medical diagnostic methods include pattern recognition and problem-oriented approaches. Describe these **TWO** methods with particular emphasis on their relative advantages and disadvantages.
 4. **Outline** the information that can be gained from a blood glucose curve and how it may be used to adjust the treatment of a diabetic dog. **A diagram may be used.**
 5. Write **short notes** on the treatment of hepatic fibrosis in the dog.
 6. **LIST** the differential diagnoses of hypernatraemia in the cat and dog.
 7. Write **short notes** on **FIVE** drugs which could be used in the management of feline idiopathic cystitis.
 8. Write **short notes** on renal tubular acidosis in dogs.

P.T.O. FOR QUESTIONS 9 - 18

9. **Briefly** describe the *life cycle*, clinical presentation and diagnosis of *Angiostrongylus vasorum* infections in the dog.
 10. Write **short notes** on the pathogenesis, diagnosis and management of canine eosinophilic bronchopneumopathy.
 11. Discuss additional therapeutic options for the management of idiopathic epilepsy in the dog when phenobarbitone and/or potassium bromide have not effectively controlled the seizures.
 12. Describe the diagnosis and management of myasthenia gravis in the dog.
 13. **Briefly** describe the cellular steps of the spontaneous formation of a cancerous metastatic lesion.
 14. Describe the gastric mucosal barrier and how it decreases the risk of gastric erosion/ulceration.
 15. **Briefly** describe the indications, goal, monitoring and potential complications for parenteral nutrition.
 16. **Briefly** describe the method of action of the following treatment as used in the treatment of immune mediated haemolytic anaemia and thrombocytopenia ("Evans syndrome") in the dog:
 - a. Prednisolone.
 - b. Vincristine.
 - c. Pooled human immunoglobulins.
 - d. Splenectomy.
 17. Describe how you would diagnose pancreatitis in the cat.
 18. **LIST** the differential diagnoses for causes of constipation or faecal tenesmus in the cat.
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PAPER II

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1. Write an essay comparing the various forms of adrenal neoplasia in cats and dogs, including comparisons of their presenting signs, diagnoses, and medical management.
 2. Write an essay on the use of polymerase chain reaction in small animal medicine, including a description of the technique and its potential benefits and problems. Illustrate with relevant examples. **Annotated diagrams may be used.**
 3. Discuss the pathogenesis of hepatic encephalopathy in the dog.
 4. Discuss the therapeutic options for the management of congestive heart failure in the dog.
 5. Discuss the potential aetiologies of non-regenerative anaemia in cat.
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THE ROYAL COLLEGE OF VETERINARY SURGEONS

DIPLOMA IN SMALL ANIMAL MEDICINE

TUESDAY 7 JULY 2009

PAPER I

(3 hours)

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1. Write **short notes** on the diagnosis, treatment and monitoring of steroid responsive meningitis-arteritis in dogs.
2. Write **short notes** on the actions and uses of sotalol in dogs and cats.
3. Write **short notes** comparing the differential diagnoses of bilateral nasal discharge in the dog and cat.
4. **List FOUR** conditions that cause increases in parathyroid hormone concentrations in the dog and for **each** condition **describe** the usual effects on calcium and phosphate concentrations.
5. **Describe** how the clinical goals differ in the treatment of cats and dogs with diabetes mellitus.
6. Write **short notes** on the clinical signs and management of feline portosystemic shunts.
7. You are presented with a 2 year-old Golden Retriever with ascites and mild increases in liver enzymes (ALT, ALP). **List** the possible differentials and what further tests you would use to achieve a diagnosis.
8. **Describe** the nutritional requirements of:
 - a) an obese cat with profound anorexia due to *Herpes* virus infection.
 - b) a thin dog with exocrine pancreatic insufficiency.

P.T.O. for Questions 9 - 18

9. **Describe** the diagnostic (including histopathological) features of histocytic colitis.
 10. Write **short notes** on the use of benazepril in the treatment of proteinuria in cats.
 11. **Describe** the actions and uses of aglepristone in dogs and cats.
 12. You are presented with a cat that has caught a bat but has sustained a bite wound during the process. Write **short notes** on the importance of enzootic bat lyssavirus in this situation.
 13. Write **short notes** on the causes of non-immune mediated haemolytic anaemias in small animals.
 14. You are presented with a severely anaemic cat which requires a blood transfusion:
 - a) **comment** upon the frequency of United Kingdom cat blood types
 - b) **briefly describe** how to perform a major and minor crossmatch in the cat
 - c) **list** the signs of acute transfusion reaction in the cat.
 15. Write **brief notes** on histiocytic disease in the dog.
 16. **Discuss** which factors affect prognosis, and their clinical usefulness, in canine multicentric lymphoma.
 17. **Describe** the differences in the use in medical statistics of :
 - a) Correlation and regression.
 - b) Sensitivity and specificity.
 - c) Mann Whitney U and Student T tests.
 18. **Describe** the pathogenesis and clinical signs of:
 - a) chocolate poisoning in dogs
 - b) Lily of the valley (*Convallaria majalis*) toxicity in cats.
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THE ROYAL COLLEGE OF VETERINARY SURGEONS

DIPLOMA IN SMALL ANIMAL MEDICINE

TUESDAY 7 JULY 2009

PAPER II

(3 hours)

Candidates are required to answer **FOUR** of the following **five** questions.

Allow 45 minutes per question.

Please start the answer to each question on a separate sheet; failure to do so could lose you marks.

Illegible handwriting or failure to answer the questions in the form requested may result in examiners being unable to award marks for information which candidates intended to convey.

1. **Describe** the various causes of embolic disease that occur in cats and dogs. Your answer should include comments on the pathogenesis, clinical signs and treatment of **each** cause.
 2. **Discuss** the further diagnostic and therapeutic options that are available for cases of lymphocytic / plasmacytic enteritis in dogs and cats that have failed to respond to a 4 week course of prednisolone.
 3. **Discuss** and **illustrate with examples** the value, limitations and use of acute phase proteins in small animal medicine.
 4. **Discuss** the possible aetiologies of anaemia in the small animal cancer patient. For **each**, **discuss** the morphological characteristics that you would expect on blood films and haematological reporting (**diagrams can be used**) and what further tests may be applicable.
 5. **Write an essay** on the treatment of fever (pyrexia) in small animal medicine. Your discussion should also include descriptions of the pathogenesis, positive and negative effects of pyrexia.
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