Certificate in Small Animal Medicine

Please view the general documents to obtain copies of:

The stages of enrolment information.

B.1: Guidance Notes for candidates on general requirements.
H. Role of Advisers to Certificate Candidates.

The following papers are enclosed:

B.2: Specific Guidance Notes for the Certificate. These notes explain what is required in terms of experience and in terms of the content of the Certificate examinations.

C: Syllabus and Commentary for the Certificate.

D: Reading list.

E: Application Form E1a and E2.

E.1A - for specific details of practice

E.2 - for final approval of experience and for permission to submit an entry to the examination

F: List of Advisers – refer to Lists of Certificate holders in Register of Members.

A copy of the most recent Examination Question Paper is enclosed for your information.

April 2011
ROYAL COLLEGE OF VETERINARY SURGEONS

CERTIFICATE IN SMALL ANIMAL MEDICINE

SPECIFIC GUIDANCE NOTES FOR CANDIDATES
[These notes must be read in conjunction with the B1 General Guidance Notes to Candidates]

MEMBERSHIP OF THE ROYAL COLLEGE OF VETERINARY SURGEONS

1. The Board for Small Animal Medicine has agreed that candidates do NOT need to be Members of the Royal College of Veterinary Surgeons (MRCVS), although they will need to hold an approved degree.

SPECIFIC EXPERIENCE

2. Forms E1, E1A and E2 seek information on the experience which is being or has been gained by the applicant.

3. If you are working in a practice which is not solely or mainly small animal medicine you are advised to obtain periods of experience in centres or practices other than your own, to supplement the experience you gain in your normal working situation - rather in the nature of short clinical attachments. In a similar vein, if you are working in a referral or teaching centre without access to the rigours and demands of unsupported first-opinion practice, you are advised to obtain experience in such a situation. You should expect that a longer period of experience than the minimum of two years could well be specified by the Board in this case. Experience would, therefore, not necessarily be approved in the first instance.

4. Normally, you may gain experience for a Certificate in Small Animal Medicine at (a) an approved centre or (b) at an approved practice.

Approved Centre Route

5. If you are following the approved centre route you will not be permitted to enter for the examination until you have been a Member of the College, or held an approved veterinary qualification for at least two years and are required to offer experience in the subject over at least one year.

Approved Practice Route

6. If you are following the approved practice route you will not be permitted to enter for the examination until you have been a Member of the College or held an approved veterinary qualification for at least three years and have gained experience in the subject over at least two years.

7. There is no separate application form other than the candidate applications forms enclosed within this Information Pack. Practices are approved for each individual candidate.
8. The Board has discretion to increase the requirements for experience for any candidate above the minimum specified if it is considered to benefit the candidate.

ADVISERS

9. Candidates are required to contact an adviser and will find their help invaluable when discussing points arising in studies for the examination, including the preparation of case reports. Candidates who seek guidance from an adviser benefit significantly in their preparation and performance in the examination.

10. Advisers are asked to sign all application forms before these are submitted to the RCVS, thereby indicating their willingness to act as the candidate’s adviser, and confirming that the candidate has made contact with them. It is the candidate’s responsibility to contact the adviser, and to meet any associated costs of travelling.

11. RCVS no longer maintains a list of advisers. Candidates are advised to consult the RCVS Register of Members for a suitably willing and qualified certificate or diploma holder to act as their adviser.

FINAL APPROVAL OF EXPERIENCE - CASE LOGS (INDICATING BREADTH OF EXPERIENCE)

12. Along with the application for Final Approval of Experience (form E2), you need to submit a record of medical cases that you have managed, covering the six months preceding 1 November, and which have required further investigation or work-up. A minimum of 75 suitably investigated medical cases are normally required. The Case Log must be signed by your adviser.

13. Routine vaccinations, “check ups” or uncomplicated cases which resolve with simple treatment need not be included. An adequate case load of both cats and dogs should be demonstrated to ensure competence in managing the spectrum of internal medicine conditions in both species.

14. The case log (which must be typed) is intended to be evidence of breadth of experience and should be only a one line summary of the medical case managed. In order to avoid difficulties with retrieval at the time of submission, case logs should be compiled concurrently with the cases managed. A sample page showing the required format for your case log is attached at Annex 1.

15. Case Logs should contain a list of any abbreviations used and a list of the precise laboratory tests included in any haematological or biochemical “screens or panels”. Cases should be listed and numbered sequentially.

16. Do not use ring binders with over-size hard covers. Stapling or treasury tags are sufficient. Ensure that you number the pages.

17. Remember to keep a copy of your case log for your own reference.

18. You are also required to provide 4 copies of your CPD Record Cards when you apply for Final Approval of Experience.
THE EXAMINATION

19. The examination consists of three Sections:
   
   i. 8 Case Reports
   ii. TWO x 2 hour written papers, and
   iii. a clinical, oral and practical examination.

SUBMITTED WORK FOR EXAMINATION - CASE REPORTS

Aim

20. The submission of case reports provides information on each candidate's type and depth of practical experience. Cases selected should be simple and need not be (nor should they be) “once in a lifetime cases” – the casebook should demonstrate evidence of a problem-solving approach and sound case management of medical cases – clearly, succinctly and in an interesting manner. The casebook should be constructed carefully to demonstrate medical skills and approaches. The case descriptions should be broadly spread across the syllabus and each should be directed towards well-executed and well followed-up cases.

21. You are expected to demonstrate a high standard of literacy, presentation and detail in the case reports. If you do not satisfy the examiners in this section of the examination, you will not be permitted to proceed to the remaining sections of the examination.

22. Candidates should pay close attention to the following when choosing and writing their case reports:
   
   - Choice of cases – these should be the candidates’ best examples of well managed and followed up cases
   - Spelling and Grammar – it is the candidate’s responsibility to make sure that their case reports have been thoroughly checked for spelling and grammar and any mistakes corrected.

23. It is important that you consult your adviser on the suitability of cases, and the preparation of the reports, and provide your adviser with copies of the relevant documents from the information pack. It is stressed that candidates who seek the guidance of an adviser benefit significantly in their preparation for, and performance in, the examination.

24. Candidates may be questioned about their case reports in the clinical, oral or practical sections of the examination.

Number and Word Count of Case Reports

25. You must prepare 8 case reports of 1,500 words each excluding figure legends and the lists of references cited at the end of each case. Candidates may vary the length of a case report by no more than 150 words. The total number of words should not exceed 12,000 words in total across all cases.
26. **A word count must be shown on the FRONT PAGE OF EACH case report.**

   “B1 Guidance Notes to Candidates Para B2.refers:

   The word count **EXCLUDES** text in appendices or references.

   Examiners are **NOT** obliged to look in detail at appendices, so you are strongly advised **not** to put important information into the appendices as there is a danger that this will not be considered. Reference citations within the case report, and any information which the candidate chooses to present in tabulated format (e.g. physical examination findings or differential diagnosis lists) must be **INCLUDED** in the word count.

   Appendices should be used for the following, for example:

   - Laboratory results;
   - Diagnostic Images (although **NOT** the interpretation of these images);
   - Endoscopic & Ultrasound reports;
   - Histopathology, Cytology & ECG findings.

   A summary or interpretation of any findings **MUST be in the main body of the text**, and no information that could relate back to the candidate should be included i.e. these documents **MUST be anonymised.**”

27. If the total word count is exceeded, candidates will have their case reports **returned unmarked** and will not be permitted to proceed to the remaining sections of the examination in the year in question.

28. **One copy** of each report is required. Cases must be typed in double-spacing on A.4 size paper.

29. Candidates are also asked to submit an electronic version of their submitted work together with their hard copy. This will be retained at RCVS unless requested by the examiners for purposes such as checking the word count. The electronic version should be Microsoft Office 2000 or XP compatible and should be submitted on CD. Please ensure that the disks are easily identifiable by placing them in an envelope with your name, and ‘Electronic version of submitted work for Certificate in Small Animal Medicine’ marked clearly on the front.

30. In order to reduce the possibility of postal loss, the casebook should be sent to the RCVS to arrive no later than 1 March by "recorded delivery" or a similar secure courier. You must retain a copy of the text (and of the illustrative material if feasible). Casebooks will be returned to you at the conclusion of the examination.

**Format of Case Reports**

31. **At least three out of the eight cases** should relate to the cat if your main experience is with dogs, and vice versa.
32. Cases should be selected to include as wide a variety of material as possible, with a view to providing the examiners with an impression of your experience. Cases should be selected from the following list of broad subject areas:

- Cardiovascular Disorders
- Respiratory Disorders
- Gastrointestinal Disorders
- Endocrine and Metabolic Disorders
- Urogenital Disorders
- Neurological Disorders, including Neuromuscular Disease
- Haemopoietic Disorders
- Infectious Diseases
- Medical Oncology.

33. As far as possible the clinical work should be the sole work of the candidate, and where assistance has been given this should be noted in a statement made on a separate page and included in the signed declaration that must accompany the submitted work.

34. Where cases involve a group of animals these should be prepared as a single case report.

35. Comparisons of case material may also be included as a single report. However it should be emphasised that the cases included should be sufficiently alike for comparisons to be meaningful.

36. Case reports should be typewritten, double-spaced on A4 paper, and may be illustrated by diagrams, high quality photographic prints (colour transparencies must not be used), ultrasound scans and radiographs (although original radiographs must not be submitted). They must be presented in English, reported in a structured way and of a standard of language that would be considered suitable for publication. The reports may be presented as a book or spirally bound. Each case should be given a serial number. Each page, and all tables, figures, and photographs must be clearly numbered, and included and bound within the A4 format of the Case Book. A suitable index sheet should be included before the first case.

37. Reproduction of radiographic images must be of a suitably high quality; printing radiographic images on plain paper is rarely sufficient to allow the examiners to assess the candidate’s ability to interpret images. Candidates should consider printing on photo quality paper, using photographs or employing the expertise of a reproductive service rather than using a home computer. Candidates may be penalised if they describe imaging abnormalities integral to the diagnosis which are not displayed or are not suitable for publication.

38. The entire casebook should be bound in a single volume and not in multiple parts.

39. Case Books should be anonymous except for a loose sheet for identification purposes which can be removed easily. The candidate’s name and institution must not be on the reports nor on the binding. (If it does appear, it will be obliterated or torn out; candidates should take care to remove their name and institution from any laboratory reports that may be included). No acknowledgements should be included other than on the loose identification page.

40. Cases should be set out under the following headings (where relevant):
- Identification of patient/patients
- History - this should be complete and pertinent to the case
- Clinical signs - physical examination findings should be complete and pertinent to the case
- Problem list and differential diagnoses - problem lists should be complete; differential diagnoses lists should be prioritised and pertinent to the case
- Investigation/diagnosis - candidates should ensure that they justify each diagnostic test that they perform, and that tests are performed in a logical order; all data (normal or abnormal) and any abnormal images should be provided and all abnormalities assessed
- Treatment - candidates should include details of any initial stabilisation and management when appropriate, as well as any treatment following diagnosis. Candidates should ensure that they adhere to UK cascade regulations or, where practising elsewhere, demonstrate awareness of these regulations in discussion
- Follow-up - this can be summarised and should be pertinent to the case
- Result
- Discussion - this should be pertinent and relate to observations relevant to the case, rather than an extensive review of the literature; a reflective approach is encouraged particularly regarding any areas of case investigation or management which were suboptimal. An awareness of any significant risks of diagnostic tests or treatment should be apparent
- References
- Appendix - this can be used for results of Laboratory results; Diagnostic Images (although NOT the interpretation of these images); Endoscopic & Ultrasound reports; Histopathology, Cytology & ECG findings. A summary and interpretation of any findings must be in the main body of the text. The appendix can also be used for providing details of protocols for anaesthesia and procedures where appropriate. Candidates however are reminded that examiners are not obliged to look in detail at appendices, and all essential information should be contained within the body of the text.

41. References (quote only those which were used in the management of the case) should be properly cited in the text, in accordance with the style in the Journal of Small Animal Practice (JSAP).

Checklist of Recommendations for Preparing Case Books

- Ensure each section of the case report reaches the required standard
- Ensure the proportion of cat:dog, or dog:cat cases is as specified in these Guidelines for Case Reports
- There is value in reporting long term follow-up of cases, including any post-mortem results, where appropriate.
- Ensure that your Casebook is self-contained and that all figures, tables, photographs, and photographs of radiographs are included and bound within the A4 format.
- Where the results of diagnostic tests are included in the case reports, ensure that normal values for each parameter are also included.
- Where the results of diagnostic tests are included within the normal range, actual values should be provided, rather than simply stating the “values were normal”.
- Ensure that the physical examination is complete in every sense, even if this is summarised and abbreviations used to reduce the number of words used.
- Ensure that all tables and figures are correctly labelled and appropriate legends included
- Remember the spell-check and the word count!
- The following cases usually represent poor case selections:-
- Cases whose diagnosis is substantially made by post-mortem examination.
- Cases that are euthanised following diagnosis with minimal medical therapy.
- Cases whose definitive treatment is surgical with limited medical involvement.

- Digitised images of radiographs are frequently of inadequate quality and should be reproduced in a fashion that illustrates the relevant pathology.
- Ensure adequate high quality references are included in the discussion.

**Grading Scheme**

42. The submitted work will be graded “Good Pass”; “Pass”, or “Fail”.

43. Certificate work that achieves a “Good Pass” may be used as examples for prospective candidates.

**Resubmission of case reports for a future examination**

44. If you pass the submitted work section of the examination, but fail the examination overall, you may re-submit the work for a future examination. However, you may not re-submit work which has not been updated more than two years after the first occasion.

**Written Examination**

45. The format of the written papers will be as follows:

   Paper I - (2 hours) comprising 10 compulsory short-answer questions designed to assess knowledge across the range of the syllabus.

   Paper II - (2 hours) 3 out of 4 essay type questions, with some choice, designed to assess deeper understanding and problem solving ability.

**Clinical, Oral and Practical**

46. The clinical, oral and practical examination will extend over approximately three hours for each candidate.

47. The clinical, oral and practical examination is normally held over a number of days and candidates are expected to be in attendance for the whole duration of this part of the examination. Specific details can be obtained from the Board Secretary.

48. A major failing for candidates in past examinations has been a lack of experience and preparation for this type of examination. Candidates are therefore advised to prepare thoroughly for this section of the examination. You may find it useful to attend practical courses and to discuss your preparation with your adviser.

49. This section of the examination will include a ‘steeplechase’ which may include the examination of radiographs, interpretation of laboratory tests and any other procedures and examinations considered relevant. There will usually be 12 “spot tests”. You are only expected to know the reference ranges of commonly used laboratory parameters.
50. Clinical cases will be presented to you (on slides etc), and you should be prepared to work through the case starting with a detailed history and thorough physical examination and followed by a creation of a problem list, differential diagnoses, diagnostic plan, interpretation of results and treatment plan.

51. You will have an oral examination at which questions may be asked in relation to the case reports you submitted. Questions regarding the submitted case reports may also be asked in the oral examination. You are reminded that good communication skills are important, whether in institutions or in practice.

**MARKS FOR CLINICAL, ORAL AND PRACTICAL**

50. Steeple-Chase = 40 marks  
Clinical = 30 marks  
Oral = 30 marks  
TOTAL FOR COP = 100 marks

A candidate **MUST pass both** the steeple-chase and the COP overall.

**ABBREVIATION FOR QUALIFICATION**

51. Successful candidates for the Certificate in Small Animal Medicine are permitted to use the abbreviation “CertSAM” after their names in the RCVS Register of Members, and on practice plate, stationery, etc..

<table>
<thead>
<tr>
<th>Sequential</th>
<th>Date</th>
<th>Breed</th>
<th>Age</th>
<th>Sex</th>
<th>Clinical Signs</th>
<th>Diagnostic Tests</th>
<th>Diagnosis</th>
<th>Treatment</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>05/01/98</td>
<td>Fox Terrier</td>
<td>0.5</td>
<td>F</td>
<td>Heart Murmur</td>
<td>Haembio,rad/US ECG</td>
<td>Subaortic stenosis</td>
<td>Could not be dilated</td>
<td>Died</td>
</tr>
<tr>
<td>2</td>
<td>05/01/98</td>
<td>Collie-Cross</td>
<td>4</td>
<td>M</td>
<td>Cough, halitosis</td>
<td>Haembio,rad bronchoscopy</td>
<td>Foreign body</td>
<td>Removed FB plus Abs</td>
<td>Resolved</td>
</tr>
<tr>
<td>3</td>
<td>07/01/98</td>
<td>Deer-hound</td>
<td>3</td>
<td>M</td>
<td>Anaemia, epistaxis</td>
<td>Haembio,clothing profiles,rad</td>
<td>AIHA/AITP</td>
<td>Prednisolone</td>
<td>Died</td>
</tr>
<tr>
<td>4</td>
<td>08/01/98</td>
<td>W.Spr.Span.</td>
<td>8</td>
<td>F</td>
<td>Exercise intolerance tachypnoea</td>
<td>Haembio,rad/US FNA-thorax</td>
<td>Mediastinal mass</td>
<td>None</td>
<td>Not known</td>
</tr>
<tr>
<td>5</td>
<td>08/01/98</td>
<td>DSH-cat</td>
<td>2</td>
<td>M</td>
<td>Exercise intolerance depression, anorexia</td>
<td>Haembio,rad/US</td>
<td>Tricuspid dysplasia</td>
<td>Frusemide, salt restriction, benazapril</td>
<td>Diuretics phased out over time. Good stability</td>
</tr>
<tr>
<td>6</td>
<td>08/01/98</td>
<td>Labrador retriever</td>
<td>5</td>
<td>F</td>
<td>Urine retention</td>
<td>Haembio, urinalysis rad/US</td>
<td>HAC and IDDM</td>
<td>Bethanecl chloride phenoxybenzamine</td>
<td>Still required assistance and manual expression</td>
</tr>
<tr>
<td>7</td>
<td>09/01/98</td>
<td>English Setter</td>
<td>7</td>
<td>M</td>
<td>Alopecia, depression pot-bellied, vomiting</td>
<td>Haembio,rad/US, urinalysis,ACTH</td>
<td>Trilostane and insulin</td>
<td>Good initial response but deteriorated, PTS</td>
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<tr>
<td>No.</td>
<td>Date</td>
<td>Breed</td>
<td>Sex</td>
<td>Signs</td>
<td>Tests</td>
<td>Diagnosis</td>
<td>Treatment</td>
<td>Response</td>
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<tr>
<td>8</td>
<td>10/01/98</td>
<td>Rough Collie</td>
<td>M</td>
<td>Anorexia, depression, vomiting</td>
<td>Haem/bio, rad/US bx Chr.liver</td>
<td>Abs, lactulose, low protein diet</td>
<td>Good response to tx.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>10/01/98</td>
<td>Whippet</td>
<td>F</td>
<td>Anorexia, depression, ataxia</td>
<td>Haem/bio, ACTH rad/US HAC</td>
<td>Trilostane</td>
<td>Neurological deterioration - PTS</td>
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Veterinary Surgeon's signature (on first or last page of log)

Adviser's signature
Commentary

1. The syllabus for small animal medicine relates only to the dog and cat and is presented as a guide to candidates. It should not be considered comprehensive. It details the major areas upon which the examination will be based. Examiners will assume that candidates have a good general knowledge of the pathophysiological basis of disease and of clinical pharmacology. Examiners will also expect candidates to be familiar with current literature in small animal medicine.

2. Candidates should possess both theoretical and practical knowledge of small animal medicine as it applies to general practice. Emphasis will be placed on a systematic problem solving approach to procedures required to establish a specific diagnosis and on therapeutic modalities. Candidates must have gained experience in the management of common medical diseases.

3. A detailed knowledge of rare conditions and a practical knowledge of highly sophisticated methods of diagnosis and therapy will not be required.

4. Candidates should have a sound knowledge of suitable patient selection and prognosis.

5. Welfare and ethical considerations in treatment of small animal cases - candidates are reminded of their commitment as registered members of the Royal College of Veterinary Surgeons to pay attention to the welfare of animals under their care.

Syllabus

1. **MANIFESTATIONS OF CLINICAL DISEASE**
   Clinical problems, their pathophysiology and diagnostic approach

2. **CRITICAL CARE**
   Principles and techniques applicable to practice, including fluid therapy and respiratory support.
   Diagnosis and management of the common small animal poisons

3. **CLINICAL PATHOLOGY**
   Techniques for sampling, sample handling, and basic laboratory techniques
   Interpretation of haematological, biochemical and endocrine tests
   Principles and application of diagnostic cytology
   Principles of basic cytological interpretation
   Ancillary diagnostic tests

4. **DIAGNOSTIC IMAGING**
   Principles and applications of the common imaging techniques (radiology and ultrasonography)
   Selection and limitations of procedures used for diagnosis
   Principles and applications of contrast techniques

5. **CARDIOVASCULAR DISORDERS**
   Clinical evaluation of the cardiovascular system
   Principles and applications of diagnostic aids (ECG, radiology, ultrasonography)
   Diagnosis of congenital and acquired heart disease
   Management of cardiac failure and the more common arrhythmias
6. RESPIRATORY DISORDERS
Clinical evaluation of the respiratory system
Principles and applications of diagnostic aids (radiology, endoscopy)
Diagnosis and management of the common disorders

7. GASTROINTESTINAL DISORDERS
Clinical evaluation of the gastrointestinal system, including the liver and pancreas
Principles and applications of diagnostic aids (laboratory tests, radiology, endoscopy, ultrasonography)
Diagnosis and management of the common disorders

8. ENDOCRINE AND METABOLIC DISORDERS
Clinical evaluation of the endocrine system
Principles and applications of diagnostic aids (laboratory testing, radiology, ultrasonography)
Diagnosis and management of the common disorders

9. UROGENITAL DISORDERS
Clinical evaluation of the urinary and genital system
Principles and applications of diagnostic aids (laboratory testing, radiology, ultrasonography)
Diagnosis and management of the common disorders

10. NEUROLOGICAL DISORDERS, INCLUDING NEUROMUSCULAR DISEASE
Appreciation of neuroanatomy sufficient for the localisation of lesions
Clinical evaluation of the nervous system
Principles and applications of diagnostic aids (radiology, CSF sampling)
The value of electrodiagnostic testing (EMG, BAER, EEG)
Diagnosis and management of the common disorders

11. HAEMOPOIETIC DISORDERS
Clinical evaluation of the haemopoietic and immune systems
Principles and applications of diagnostic aids (bone marrow biopsy, clotting tests, immunological testing)
Diagnosis and management of the common disorders

12. INFECTIOUS DISEASES
Diagnostic and management of the common infectious diseases
Prophylaxis and eradication schemes Zoonotic diseases including possible imported diseases

13. MEDICAL ONCOLOGY
Clinical evaluation and staging of tumour patients
Approach to the treatment of cancer patients including the principles of chemotherapy and radiotherapy
Recognition and management of common tumours

14. OPHTHALMOLOGICAL DISORDERS
Clinical evaluation of the eye
Recognition of the ocular manifestations of systemic disease

15. DERMATOLOGICAL DISORDERS
Clinical evaluation of the skin
Diagnosis and management of skin lesions associated with systemic disease

16. CLINICAL NUTRITION
Principles and applications of dietary management including enteral nutrition techniques
ROYAL COLLEGE OF VETERINARY SURGEONS

SMALL ANIMAL MEDICINE - RECOMMENDED READING LIST FOR THE CERTIFICATE

Candidates should note that the reading list for the Certificate in Small Animal Medicine has been withdrawn. Candidates are expected to research the literature for themselves and are recommended to make use of the RCVS Library and Information Service for this purpose (http://www.rcvslibrary.org.uk/, e-mail - library@rcvs.org.uk or telephone 020 7222 2021). Candidates should also seek advice on suitable reading matter from their advisers.
PLEASE ENSURE THAT YOU COMPLETE A FORM E1 (TO BE FOUND IN THE COMMON DOCUMENTS) AND ATTACH IT TO THIS FORM

THE ROYAL COLLEGE OF VETERINARY SURGEONS

SPECIALISATION AND FURTHER EDUCATION

Certificate in Small Animal Medicine

Details of the veterinary practice or other branch of the profession in which experience is being gained over at least two years: **(If more than one practice/establishment, please photocopy this form and complete in respect of each such establishment)**

1. **NAME in full:**
   
2. **Place of employment and address:**
   
3. **Date of commencement of employment:**
   **(and date of leaving if you are no longer employed at this address):**

4. **Experience:** Please tick the route by which experience is being gained. **(see paper B2, para.2)**
   
   i) **Approved (“assessed”) practice route**
      
      Period of experience being offered (from/to):

   ii) **Approved centre route**
      **(Do not fill in Question 9 & 10)**
      
      Name of approved centre:
      
      Period of experience being offered (from/to):

   * Applications for approval as an approved centre must be made by the centre directly to the RCVS and not by the candidate; currently approved centres are listed at B2, para 2. An application form can be obtained from RCVS.

5. **Number of veterinary surgeons working in small animals at your place of employment:**
6. Approximate small animal total practice/establishment case load per month:

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<tr>
<td>of which</td>
<td></td>
<td>are small animal medical cases</td>
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<td>of which</td>
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<td>are dogs and</td>
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<td>of which</td>
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<td>are cats</td>
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7. Proportion of practice case load which you personally undertake:

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<tbody>
<tr>
<td>Small animal cases</td>
<td></td>
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<tr>
<td>Small animal medical cases</td>
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</table>

8. Percentage and number of hours per week spent by the applicant on work relevant to the Certificate syllabus during practice hours:

9. The main items of equipment and facilities available for the examination and treatment of small animal medical cases are as follows:

<table>
<thead>
<tr>
<th>Diagnostic Facilities</th>
<th>Type of Equipment</th>
<th>Type of Examinations Performed</th>
<th>Approximate Number of Cases per Year</th>
<th>Proportion Undertaken by Candidate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiology</td>
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<td>Ultrasonography</td>
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<td>Endoscopy</td>
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<td>ECG</td>
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<tr>
<td>Haematology*</td>
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<tr>
<td>Clinical biochemistry*</td>
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<td>Other</td>
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*If commercial laboratories are used, please indicate the approximate number of samples submitted per year and the range of tests requested (on a separate sheet).

10. Indicate facilities and equipment available for managing the critically ill patient on a separate sheet.
PLEASE RETURN ORIGINAL FORM PLUS FOUR COPIES

THE FOLLOWING SECTION SHOULD BE COMPLETED BY YOUR ADVISER

I have agreed that this candidate will be advised by me and note that it is the candidate’s responsibility to approach me as necessary.

Name (Block capitals) ____________________________________________________________

Signed: __________________________________ Date: ___________________________

N.B. Late applications will not be accepted
CERTIFICATE IN SMALL ANIMAL MEDICINE

APPLICATION FOR FINAL APPROVAL OF EXPERIENCE AND FOR PERMISSION TO SUBMIT AN ENTRY TO THE NEXT EXAMINATION

This form must be completed and returned to the RCVS, Belgravia House, 62-64 Horseferry Road, London SW1P 2AF by 1 November prior to the year in which you wish to enter the examination. Your application should be accompanied by four collated photocopies of the completed form that are clear and of a good standard, together with four photocopies of your CPD Record Card (all collated into sets). Your Case Log should also be enclosed at this stage.

N.B. No late applications will be accepted.

1. **NAME** in full (block letters), surname last

2. **DEGREES/DIPLOMAS/CERTIFICATES** (in abbrev. form) and date obtained

3. **ADDRESS** for all correspondence (block letters)

4. **TELEPHONE No(s)** (for contact during day):

   **FAX No.** (for contact during day):

5. **DATE OF ENROLMENT** for Certificate (month/year):

If you are at an Approved Centre and your application for enrolment is being submitted concurrently with this application for Final Approval, please state “**CONCURRENT**.”
6. QUALIFICATION FOR ENTRY
   Are you a Member of the RCVS? YES/NO (delete as appropriate)

   If Yes, please state veterinary degree obtained, name of the awarding University, and date of
graduation and/or date of obtaining Membership:

   If No, please give details of the veterinary qualification you hold which entitles you to practice
veterinary surgery in your home country (i.e. full title, recognised abbreviation, awarding
University or other examining body, date obtained, length of the course):

7. PERIODS OF EXPERIENCE BEING OFFERED to meet the requirements of the byelaws

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<th>Veterinary Practice or Centre (name and address)</th>
<th>Period of employment (from/to)</th>
<th>Certified by Principal</th>
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   If there has been any change in the work-load of the establishment, or in your personal
work-load, since you applied for enrolment, please give details on a separate sheet,
securely attached.

8. ATTENDANCE AT RELEVANT SHORT COURSES

   Candidates must attach five copies of their RCVS CPD Record Card for each year for which
they are applying for final approval of experience. Details of all relevant short courses,
conferences and meetings attended should be recorded on the Record Card. Candidates
must comply with the annual recommended minimum hours of CPD otherwise final
approval of experience and permission to sit the next examination will not be granted.
9. Other Involvement in Relation to Small Animal Medicine

List below any other relevant courses, conferences, congresses, meetings, symposia etc which are not detailed on your RCVS Record Card.

<table>
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<tr>
<th>Attendance at relevant congresses, conferences, meetings, symposia, etc.</th>
<th>Date and venue</th>
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10. Publications/Articles/Papers/Lectures

Give details below (including any involvement in the instruction of others):

11. Other Postgraduate Studies

During the period of experience being offered, have you been or are you studying for any other postgraduate qualification? **Yes/No**

If **yes**, please give brief details:
12. I HEREBY APPLY FOR FINAL APPROVAL OF EXPERIENCE AND FOR PERMISSION TO SUBMIT AN ENTRY TO THE CERTIFICATE EXAMINATION IN SMALL ANIMAL MEDICINE.
I certify that the period of experience being offered has not been/is not being offered to meet the requirements of the byelaws for any other RCVS Certificate or Diploma.

13. CONFIRMATION OF INTENT TO SIT THE NEXT EXAMINATION
If approval of experience is granted, I do/do not (delete as appropriate) intend to submit an entry to the next examination. (Closing date for receipt of entries is 1 March.)

Name: ____________________________________________
(Block capitals)
Signature: ___________________________ Date: ___________________________

PLEASE RETURN ORIGINAL FORM PLUS FOUR COPIES

The following section should be completed by your Adviser

I confirm that I am acting as this candidate's Adviser.

Name: ____________________________________________
(Block capitals)
Signature: ___________________________ Date: ___________________________

Note:
- Please ensure your completed form is accompanied by four photocopies that are clear and of a good standard, and are collated into sets.
- Please ensure four copies of your CPD Record Card are attached to your application.
- Please ensure your Case Log is enclosed, in accordance with the requirements (see B2 Guidance Notes.)
- If an acknowledgement is required please enclose a stamped addressed envelope.
- Candidates will be advised of the outcome of their application no later than mid-January and must not telephone or write for this information in the interim.
- Please ensure that your Adviser has signed your form - late and incomplete forms and Case Logs are not accepted.
THE ROYAL COLLEGE OF VETERINARY SURGEONS

CERTIFICATE IN SMALL ANIMAL MEDICINE

WEDNESDAY 21 JULY 2010

PAPER I
(2 hours)

Candidates are required to answer ALL TEN questions

Allow 12 minutes per question.

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

Short answer questions are intended to examine factual knowledge. Where the question calls for short notes, that is all that is required.

If incorrect information is given and this is clinically significant, then marks may be deducted at the discretion of the examiners.

Illegible hand writing may prevent the examiners awarding marks.

1. Write short notes on the pathophysiology, diagnosis and treatment of eosinophilic bronchopneumopathy in dogs.

2. Using a table, state briefly the aetiology, signalment, clinical, laboratory and ultrasonographic features of each of the following feline inflammatory liver diseases:
   a) acute neutrophilic cholangitis
      (previously known as suppurative cholangitis/cholangiohepatitis)
   b) lymphocytic cholangitis
      (previously known as lymphocytic cholangiohepatitis or non-suppurative cholangitis).

3. For each of the following canine congenital heart abnormalities, list predisposed breed(s), describe the typical murmur, and list definitive (i.e. interventional) treatment options. You may use a table if you wish.
   a) Pulmonic stenosis.
   b) Tricuspid valve dysplasia.
   c) Patent ductus arteriosus (left to right shunting).

P.T.O. for Questions 4 - 10
4. Write **short notes** on the common clinical and laboratory features of Feline Infectious Peritonitis (FIP).

5. Write **short notes** on the following oral antibiotic agents. For **each** drug your answer should **briefly** include mechanism of action, incidence of resistance, specific clinical indications and potential adverse effects in cats and dogs.

   a. Doxycycline.
   b. Erythromycin.
   c. Metronidazole.

6. a. **Briefly outline** the blood group system in cats and **explain** the clinical significance of this with reference to administration of blood transfusions.
   
   b. **List** the potential immunologic and non-immunologic transfusion reactions that can occur in cats receiving fresh or stored blood.

7. a. **List** the clinical signs and physical examination findings of acute aortic thromboembolism in cats.
   
   b. Prophylactic therapy to prevent re-thrombosis is commonly used.
      
      **List** any **THREE** drugs used for this purpose in cats.
      
      For **each** drug listed, **briefly describe** its method of action.

8. Write **short notes** on the laboratory tests that can be used in the diagnosis of acute pancreatitis in the dog, **briefly** indicating their relative specificity and sensitivity.

9. **Outline, using a flow chart**, your **diagnostic** approach to a dog with an apparent packed cell volume (PCV) of 70%.

10. **Briefly outline** the clinical signs, diagnostic tests and **treatment options** for the following **TWO** canine diseases:
    
    a. Phaeochromocytoma
    b. Insulinoma.
1. You are presented with a 12 year-old male neutered diabetic cat with a 6 month history of diabetes mellitus. He has been receiving 12 units (2 iu/kg) protamine zinc insulin once daily for several weeks but has recently lost 0.5kg in weight and his owner has commented that his thirst has increased. Fructosamine concentration is high, consistent with poor glycaemic control and a blood glucose curve shows that the blood glucose remains above 20mmol/l for 12 hours following injection.

   a) **List** the possible causes of unstable feline diabetes mellitus.

   b) **Describe** your clinical approach to the investigation and management of this case.

2. You are presented with a 7 year-old male neutered cross breed dog with a 3-week history of intermittent vomiting. Vomiting usually occurs every day and consists of partially digested food, saliva and bile. Physical examination reveals the dog to be in poor body condition but is otherwise unremarkable.

   a) **List** the differential diagnoses for chronic vomiting in this case.

   b) **Discuss** any further investigations you would perform in this case, justifying **each** test that you choose to perform.

   c) **Outline** the symptomatic and supportive treatment of this dog until a definitive diagnosis is reached.
3. a. **Describe** the epidemiology of leptospira infection in dogs.

   b. **Describe** the potential clinicopathologic and diagnostic imaging findings commonly associated with acute leptospirosis in dogs.

   c. Polymerase chain reaction (PCR) tests are increasingly being used to diagnose leptospirosis. **Outline the advantages and disadvantages** of PCR testing, relative to assaying anti-leptospira antibody titres via the microscopic agglutination test (MAT), in diagnosing clinical disease in dogs.

4. You are asked to examine a 5 year-old entire female Springer spaniel with a 3-day history of lethargy. On physical examination you notice petechial haemorrhages on her gingival mucosa.

   i) **List** your differential diagnoses for this dog, and **describe** how you would investigate further, justifying each test that you choose.

   ii) For **ONE** of the possible diagnoses, **describe** the treatment options available.