**ECVO qualifying examination: Information for candidates**

The ECVO qualifying examination is held annually for candidates who have successfully fulfilled the requirements of the ECVO Credentials Committee.

**Applying to sit the ECVO qualifying examination**

Once your credentials have been accepted by the Credentials Committee, if you wish to sit the ECVO qualifying examination then you should submit, **by 1 December of the year preceding the examination**, the following:

1. Application form (form B) to sit the ECVO qualifying examination
	* This should be submitted by email (PDF format) to the ECVO Secretary and to the Chair of the Credentials Committee
2. Payment of examination application fee
	* This should be paid into the ECVO bank account
	* Please check the website for the current fees and bank account details

NOTE: The application form must be submitted to the ECVO Secretary/Credentials Committee Chair and the application fee must have been paid into the ECVO bank account by 1 December of the year preceding the examination (please notify the ECVO Treasurer of the transfer). **It is your responsibility to ensure that the ECVO Secretary and** Credentials Committee Chair **have received the form and that the ECVO bank account has received the application fee. Applicants submitting an application form that is received later than 1 December and applicants submitting payments that are not in the ECVO bank account by 1 December will not be eligible to sit the examination.**

Candidates must sit the full exam within 3 years after the satisfactory completion of their approved residency training program of the ECVO (Art 5.1.1.b.), unless exempted by the Credentials Committee.

**Notification of eligibility to sit the ECVO qualifying examination**

Following successful submission of your application form and fee, you will receive notification of your eligibility to sit the ECVO qualifying examination not later than 1 January of the year of the examination. This notification will normally be via email. **If you have not received notification by this time, it is your responsibility to contact the ECVO secretary so that this can be investigated.**

**Location and dates of the ECVO qualifying examination**

The dates of the theoretical examinations (MCQ and slide exams) will normally be given at least 10 months in advance, and will be held in March or April.  These are online and decentralized examinations (see below).

The Practical exam will be administered at a central location later during the same year. The location and dates of the practical examinations are dependent on the availability of facilities at the host institution and therefore may vary from year to year. We will aim to inform you of the month and location of the practical examination as early as we are able, ideally a year in advance (although this may not always be possible).

**Overview of the ECVO qualifying examination**

The ECVO qualifying examination is designed to test the candidate’s faculties for and knowledge of veterinary and comparative ophthalmology, in particular knowledge of the specified literature and the proficiency in clinical examination and ophthalmic surgery. It comprises three parts:

1. Multiple Choice Questions (MCQ)
2. Slide Recognition examination
3. Practical examination

The examination is conducted in English. Candidates should be sufficiently proficient in English to be able to read, write, and understand veterinary publications and examination questions written or spoken in English. The examination is structured to minimise any disadvantage of non-native English language speakers. The College permits the use of a non-medical dictionary during the examinations. Medical dictionaries or textbooks are not allowed.

The theoretical parts (MCQ and slide recognition) will be held online and in a decentralized capacity, so that candidates may sit the examination in their own country if desired. However, an invigilator must be present in person at all times during the examination period, and this must be a Diplomate of a European or American veterinary College (although they are not required to be a Diplomate of veterinary ophthalmology). Invigilators will be required to certify their presence during the examination.

Prior to the online examinations, practice sessions will be arranged for candidates, and separate training sessions offered to invigilators. This will be arranged by the examination committee and ExamSoft in the months preceding the examination.

**Multiple Choice Questions (MCQ)**

The Written Test consists of 200 multiple choice questions designed to test theoretical knowledge in the field of veterinary ophthalmology and associated sciences, covering the disciplines of ocular anatomy, embryology, physiology, pharmacology, microbiology, histopathology, cytology, toxicology, immunology, molecular biology, genetics, medicine, surgery, diagnostics, diagnostic imaging and neuro-ophthalmology in canine, feline, equine, large and small ruminant, poultry, laboratory animal, exotic animal and wildlife species. The questions encompass all the anatomic regions of the eye and incorporate the categories of examination, assessment, diagnosis and treatment.

Questions are based on papers from selected journals, books and classic articles as listed in the ‘ECVO residents reading list’. The MCQ exam is given in four sections, 50 questions each, and the candidates are allowed up to 2 hours per section.

**Sample MCQs**

Please see PDF file entitled ‘MCQ exam sample questions’. This document gives 20 MCQ examples used in previous examinations. Please note that these specific questions have been removed from the exam question bank for various reasons and may be outdated or not be specifically relevant to your examination, but should give you an idea of the sort of questions that may be asked.

**Slide Recognition test**

The Slide Recognition test consists of images of 100 clinical cases, designed to test clinical diagnostic and descriptive skills in the field of veterinary ophthalmology as well as in associated sciences, including applied diagnostic imaging, cytology, microbiology, and histopathology. This test is given in two sections of 2 hours each.

The images used in this part of the examination include clinical photographs of a patient or any part of the eye, photographs of diagnostic techniques, surgical procedures, cytological specimens, and gross and microscopic pathological specimens. Questions typically include such items as listing lesions or abnormalities, differential diagnoses, pathogeneses, morphologic diagnoses, and identifying species, morphologic structures and surgical instruments or techniques.

Preparation for this portion of the exam is recommended by reviewing images of the subject content listed above and interpreting the images according to the questions likely to be asked.

**Sample Slide Recognition questions**

Please see PDF file entitled ‘Slide exam sample questions’. This document gives a number of slide examples used in previous examinations. Please note that these specific questions have been removed from the exam question bank for various reasons and may be outdated or not be specifically relevant to your examination, but should give you an idea of the sort of questions that may be asked.

**Practical examination**

The Practical examination consists of three separate stations that are designed to evaluate a candidate's proficiency in animal examination techniques and surgical techniques. Each part is assessed by at least two examiners. Candidates are given 40 minutes for each of the stations, including set-up time.

**Clinical Examination**

The candidate will be provided with a slit lamp biomicroscope, indirect and direct ophthalmoscope, condensing lenses, a Finhoff transilluminator and goniolens. The candidate may use his/her own equipment if desired. The candidate will be given up to 5 minutes to set up or adjust any equipment.

The candidate will be asked to perform an ophthalmic examination on a live patient. Small animal, equine, production animal, or exotic animal cases may be encountered. The candidate’s diagnostic and interpretive skills are evaluated, and their clinical findings are discussed with the examiners. Candidates are not allowed to bring their own recording equipment (such as clinical examination sheets) into the examination.

The candidate may be asked to perform a complete or partial ophthalmic examination, depending on the examiners’ preferences.

At least two examiners will be in the examination room with the candidate to record the candidate’s findings and evaluate the candidate’s examination methods and use of instrumentation. Once the candidate finishes with a particular animal, the candidate cannot go back to that animal for re-examination, even if additional time remains. When the candidate is notified that the time is up, no additional comments the candidate makes will be recorded by the examiners.

The candidate will be evaluated on both the candidate’s examination technique and the candidate’s ability to detect and accurately describe and interpret ophthalmic findings. The candidate is asked to describe all clinical findings, normal and abnormal, to the examiners. It is the candidate’s responsibility to accurately describe all lesions (for example, give its specific depth, size, shape, location in a specific ocular tissue, colour, orientation, texture, etc.), and note in which eye the lesion exists. Falsely identifying a normal structure as a lesion will result in subtraction of points. Appropriate use of instrumentation is also evaluated.

The candidate can prepare for the animal examination portion of the test by developing sound examination techniques and practicing verbalizing accurate and succinct descriptions of lesions to their mentors.

**Extraocular and Corneal/ Intraocular Surgery**

The two surgery stations (extraocular surgery and corneal/intraocular surgery) involve surgical exercises on cadaver eyes and adnexal structures from appropriate species (typically pig, dog, calf, or rabbit). Candidates are asked to perform one or more eyelid or adnexal procedures and one or more corneal and/or intraocular procedure, or part thereof.

Examples of adnexal procedures: Entropion and ectropion repairs; blepharoplastic procedures; lid laceration repair; methods for correcting defects associated with eyelid tumor excision; third eyelid gland surgery; third eyelid cartilage surgery; enucleation techniques.

Examples of corneal or intraocular procedures: Corneal laceration repair; conjunctival pedicle graft; corneo-conjunctival transposition graft; two-step clear corneal incision; continuous curvilinear capsulorhexis; extracapsular cataract extraction; intracapsular cataract extraction.

Note that the above list is not exhaustive. Candidates should familiarize themselves with a wide range of adnexal, ocular and intraocular surgical techniques as described within the recommended resource material/reading list.

The candidate should supply all necessary instruments, irrigating solution, suture material, viscoelastic, blades, gloves, and head loupes. An operating microscope for the intraocular surgery section and stands for organizing the instruments will be available.

FAILURE TO BRING NECESSARY SUPPLIES MAY RESULT IN FAILURE. THE EXAMINERS WILL NOT OFFER ANY SUPPLIES, INCLUDING DISPOSABLE MATERIALS.

Candidates will be allowed 40 minutes for the extraocular station, and 40 minutes for the corneal/ intraocular station, *which includes 5 minutes set up time and 5 minutes pack-up time*. Time limits are strictly enforced.

Candidates are evaluated on their understanding and knowledge of the components of the procedures, as well as their surgical technique and knowledge of instruments and suture materials. Candidates should be aware that their surgical technique is evaluated on the basis of currently accepted practice, *as described in the current literature*. Inappropriate instrument choice or instrument application, inappropriate surgical technique or other significant deviations from currently accepted practice, will result in subtraction of points, as will failure to complete a procedure within the allotted time. Candidates are strongly advised to consult the recommended resource material/reading list for appropriate surgical references.

Knowledge of and experience with proper surgical technique and the common ophthalmic surgical techniques should prepare the candidate for this portion of the exam. Candidates are strongly urged to prepare carefully and to practice all possible surgical techniques on cadaver eyes in preparation for this examination.

The candidate may be asked to describe the surgical procedure while performing it. Alternatively, examiners may ask specific questions on the choice of procedure, surgical technique, surgical equipment or disposables. In such cases, candidates are advised to describe the procedure or to answer questions accurately but succinctly and to avoid extensive monologue (with associated inaction) that may jeopardize their ability to perform the surgical procedures within the allotted time. We recognize that this demonstration differs from a clinical situation.

One of the examiners will function as the candidate’s surgical assistant but will act only upon the candidate’s specific instructions. As the cadaver eyes are soft, the examiners may inflate the globe to a more normal tension by intraocular injection of saline.

Candidates are strongly advised to consult the recommended resource material/reading list for appropriate surgical references.

**Grading of the theoretical examination**

The MCQ and Slide Recognition test are scored digitally through the Examsoft system and total scores for all questions are generated.

The passing point for the Written and Image Recognition Tests are determined through a criterion referenced method as modified by Angoff. This technique is considered by most experts as one of the most reliable and defensible methods available of setting passing points. It relies on the pooled judgments of content experts. For example, in this approach, a group of experts is asked to judge each item on the test. The criterion used is formed into a question: "what is the probability that a `minimally acceptable' candidate will answer this item correctly?" This question prompts the judges to consider a group of minimally acceptable candidates and what proportion of that group will answer each item correctly. The average of the proportions, or probabilities, is multiplied by the total number of questions in the test. The result then represents the minimally acceptable score. Since the ECVO exams are revised regularly, with some items being replaced by newly developed ones, the content and difficulty level of the examination changes. These changes usually affect the score necessary to pass. As a result, the passing point for each examination is unique. Once the Angoff raw passing point (PP) has been determined, the passing point minus one, two and three standard deviations (PP-1, PP-2, PP-3) are calculated. When the examination results are collated, one of these passing points, or an intermediate passing point, is then selected as the final passing point. The decision as to which is chosen (PP, PP-1, PP-2, PP-3, or an intermediate passing point) is dependent on the phenomenon of clustering (ie if a number of candidate results are clustered around a passing point, a passing point below that cluster may be chosen as the final pass point).

**Grading of the practical examination**

For each station within the Practical and Oral examination, two examiners observe and independently score the surgical or examination techniques of the candidate on separate components of the procedure, including appropriate instrumentation and proficiency in the technique itself.

Since the Angoff method is not feasible for the practical examination grading, the passing point at each of the three practical stations (clinical examination, extraocular surgery, corneal/intraocular surgery) is 6.5/10. In order to pass the practical examination, candidates must pass all three stations.

**Candidate Notification and Re-examination procedures**

The examination committee meets immediately after the exam to review the candidates’ results. Candidates are normally informed of their result via email within 14 days of completion of the examination via the chairperson of the Examination Committee and/ or the ECVO secretary.

**Unsuccessful candidates**

Feedback is given to unsuccessful candidates within 4 weeks of the notification of the final results. Unsuccessful candidates are provided with a detailed breakdown of their MCQ and/or slide examination results in order to aid future revision. Unsuccessful candidates can also request their individual marks and the pass mark for each failed section of the exam.

**Resitting the exam**

If a candidate fails either of the two parts of the theoretical examination (MCQ, slide recognition), this portion alone needs to be retaken.

For the practical examination, if a candidate fails any of the three parts of the examination (clinical examination, extraocular surgery, corneal/intraocular surgery), this portion alone needs to be retaken.

The candidate may sit the examination on a total of four occasions only. Applications of candidates to sit the examination on second and subsequent occasions shall be reviewed and approved annually by the incoming Examination Committee chairperson and the incoming Credentials Committee chairperson.

Re-applicants must comply with all requirements as outlined by the Credentials Committee in order to repeat any portion(s) of the qualifying examination. Please refer to the FAQs Examination section on the ECVO website.

**Appeals**

Any candidate who wishes to appeal against the decision on failure in the examination must do so within 90 days of the postmarked date of his/her results notification letter, via the ECVO Secretary. The request for appeal must be made in writing to the ECVO Secretary and shall include a statement of the grounds for reconsideration and documentation in support of the petition.

The Secretary shall notify the President of the College and the Chairperson of the Examination Committee. The President shall appoint a committee of three Diplomates who are not officers or members of the Examination Committee to serve as an Appeals Committee within 30 days of notice of an appeal. The Chairperson of the Examination Committee shall submit the examination and scores of the candidate, the complete list of scores of all candidates on that examination, and a statement of the criteria used for the Committee's recommendation for pass and fail to the Appeals Committee indicating the reason(s) for rejecting the candidate.

The Appeals Committee shall return its verdict within 60 days of its appointment.