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# The International Council of Ophthalmology Examinations

The International Council of Ophthalmology ([www.icoph.org](http://www.icoph.org)) is a Swiss registered Non-Governmental-Organization (NGO). We aim to build a World Alliance for Sight to enhance ophthalmic education and improve patients' access to high quality eye care to preserve and restore vision for the people of the world. The rules governing NGOs are such that the International Council of Ophthalmology (ICO) has to be run economically and accountably with modest expenses so that the greatest benefit goes to the delivery of our programs in education, eye care and leadership which are delivered in 67 countries, including Iran. The main support for the ICO comes from the members of our constituent societies. The ICO education programs include the Fellowships and the Examinations.

About 60 ICO fellowships for three months each ([www.icoph.org/refocusing\\_education/fellowships.html](http://www.icoph.org/refocusing_education/fellowships.html)) are awarded annually to candidates from many countries, including Iran. They are awarded to successful applicants on the basis of the number of points gained in various areas such as the CV, experience, charity or overseas work, academic work, the nature of the training they need and whether they have passed the ICO examinations. Over the last 5 years there has been a huge increase in ICO Educational activity in its many programs.

The education of ophthalmologists varies enormously world-wide. Some countries have well developed examination systems to assess the competence of their trainees and to fulfill the requirements of the regulating bodies of that country for the practice of medical specialties. However, many countries and institutions do not have the structure, facilities or staff to establish such a system. The International Council of Ophthalmology Examinations promotes eye care worldwide by encouraging individuals to acquire and maintain the highest standard of knowledge and of the practice of ophthalmology, and we provide the only worldwide medical speciality examinations (formally known as "Assessments"). Since their inception in 1994, more than 19,000 ophthalmologists from 67 countries in 105 examination centers have taken the examinations. The ICO Basic Science, Optics and Refraction and the Clinical Sciences examinations are offered once a year in April and the new Advanced examination is held annually in October. The set dates for these examinations encourages trainees to discipline themselves, making sure that their knowledge is of a standard that will give them a chance of attaining the pass mark. Supported by their local institutions, the ICO examinations also advise on reading lists, websites and current information to aid revision.

The ICO examinations are organized through our local co-ordinators. We have 1-17 co-ordinators in every country where the exams are taken [www.icoexams.org/find/](http://www.icoexams.org/find/). Co-ordinators are senior ophthalmologists who play a truly vital role in education of ophthalmologists around the world and, in keeping with the ICO Examinations Committee policies, organise the secure and fair taking of the exams. Many of them organize courses throughout the year to prepare the candidates for the examination, mentor candidates and give them advice on how to prepare. Generally, the aim is to help candidates learn for the long term, not just "cram" to pass the examination-achieving a pass is one goal, making better ophthalmologists is the real aim!

The Basic Sciences and Optics and Refraction exams are separate examinations, offered in Chinese, English, French, Portuguese and Spanish. Every candidate receives an English language version with the choice of language book they have requested. The Clinical Sciences examination is supplied only in English, mainly because trainers around the world have wanted to encourage their trainees to learn English as the current working language of ophthalmology in much the same way as German, French, Arabic and Greek were, in turn, the "Lingua Francas" of medicine. Translation is also very expensive! The examinations can be taken at any stage but it is recommended that the Optics and refraction (1 hour paper) is taken in the 1st to 2nd year of training and Basic Sciences (2 hour paper) in the 1st to 3rd year and the Clinical sciences (4 hour paper) in the 3rd year. It is possible to take all the examinations in one day but this means 7 hours of examinations and statistics show that the pass rate in such cases is lower than if they are taken separately.

The format of the Basic Sciences and Optics and Refraction questions is a statement with 5 True/False answer options. The questions are written by our team of over 50 writers from 13 countries. There are 80 questions in the Basic Sciences exam and, from 2012, 30 in the Optics and Refraction exam. The examination papers are set up over a year ahead and scrutinized in detail by the Examinations Executive Committee drawn from senior ophthalmologists representing most regions of the world. Maintenance of standards from year to year is achieved by several mechanisms including mark feed-back from previous

years. The pass mark is set to keep the examination at a stable standard of difficulty. The examination papers are marked by an optical mark reader (OMR) and associated computer software. Question papers have to be filled out very carefully and in the prescribed way or the candidate needlessly loses marks. Most years between 50 and 60% of candidates pass: thus it is a difficult exam and a significant achievement to pass it! Passing it confers some exemptions from other examinations. Security for such an examination is very strict: breaches of security are unusual but are monitored by multiple mechanisms and the penalties for proven breaches are very severe.

The format of the Clinical Sciences examination is a statement, scenario or a scenario with a picture or diagram. The candidate has to choose the single best answer from a choice of four statements. The production and marking of the exam is similar to the Basic Science and Optics and Refraction exam. The exam fee is set at a standard price for candidates who apply individually to the ICO. However reduced fees are available to candidates who apply through their local coordinator, taking the examination as a group and paying the fee that is based on the Gross National Income Per Capita (GNIPC). The exams are cost in Swiss Francs (we are a Swiss NGO) but can be paid in Swiss Francs or US dollars. The cost of the examinations has been kept as low as possible with only one 5% rise in the last 6 years and for 2012 there will be a reduction for most countries. The details can be found at [www.icoexams.org](http://www.icoexams.org)

Since October 2010 we have offered the ICO Advanced Examination in Ophthalmology, taken annually in English. This revolutionary examination tests up-to-date knowledge and a high level of 'common sense' decision making and has a unique marking system that encourages precision and accuracy which are essential characteristics of competent ophthalmologists. The areas covered include current clinically relevant basic sciences, optics and refraction and clinical sciences, international ethics and the ICO clinical guidelines. It consists of 85 questions, 10 being problem solving or "extended matching type" questions and the rest are multiple True/False questions. Some questions are supplemented by a picture or diagram. All the questions also have a "confidence indicator": the candidates have to indicate how confident they are about whether they have answered the question correctly on a scale where the 1 is not confident at all and 3 is very confident. If they get the True/False answer correct they gain or lose marks as shown in Table 1.

**Table 1.** The confidence indicator

In the left large column is whether the candidate answered the True /False option correctly or incorrectly. The middle large column shows which of the 1 to 3 grades they chose. The right column shows the mark they obtained.

If, in the top row, A, they were correct and graded the answer 1 they get +1 mark. If, as in the second row, B, they were incorrect, they gain or lose no marks. In row E, they answered the True/False option correctly and graded the confidence indicator 3 so they got +3 marks. Had they been incorrect ion their True/False answer, row F, they would have scored -3 marks. Thus, precision is paramount in this test.

True /False or extended

	True /False or extended matching answer	Confidence indicator Grade (1-3)	Mark scored
A	Correct	1	+1
B	Incorrect	1	0
C	Correct	2	+2
D	Incorrect	2	-2
E	Correct	3	+3
F	Incorrect	3	-3

The purpose of the confidence indicator is to test what we do in day to day life: we subject our clinical decisions to a scrutiny that examines how certain we are about them. If, for instance, we are about to prescribe a powerful drug we ask ourselves how certain we are that we have the route of administration and dose in Mg per Kg correct. Are we very certain (Grade 3) and do not need to think again because we prescribe the drug daily? Are we not completely certain (Grade 2) and need to confirm by, say, reworking the dose and route for the individual patient? Are we very uncertain (Grade 1) and would have to ask a colleague or pharmacist or read up about the drug? The confidence indicator rewards the confident who are correct and penalizes those who are incorrect but it does not penalize those who are not certain and

prepared to consult a colleague. However, the pass rate is set beforehand (“criterion referencing”) and it is necessary to be sure of many of the answers to get sufficient marks to pass. The Advanced Examination can be taken by any ophthalmologist who has passed the ICO Basic Science, Optics and Refraction and the Clinical Sciences examinations; there are some exemptions that will be reviewed again in 2012. It is likely to be passed by an ophthalmologist who is experienced and has kept up to date with clinical practice across the sub-specialities and with relevant research. Passing the Advanced examination indicates that the candidate has the knowledge and other abilities to act as an independent consultant and the examination is likely to be taken by candidates who see their future career as a leader in ophthalmology. Passing entitles the successful candidate to use the Post -Nominal Acronym FICO once they have passed a local “face-to-face” examination or, in countries where they do not have such exams, a license to practice from the Ministry of Health or other body. We believe that face-to-face exams, in one form or another, are essential for assessment of the ability of a candidate to practice ophthalmology. The ICO does not intend to offer face-to-face examinations as they are essentially for local ophthalmologists to assess the candidates from their own country.

In the near future, we propose an inexpensive online Foundation Examination taken preferably in the candidate’s first year of training. The first year is a time of very rapid learning and the defined syllabus will be based on a number of books commonly used in ophthalmology in Basic Sciences, Optics and Refraction and Clinical Sciences.

Thus, the ICO Examinations Program strives to deliver very high quality examinations for ophthalmologists at all stages of their training and after. The examinations are designed to be affordable, secure, delivered to where they can take them and, for the successful candidate, a highly prestigious achievement recognized worldwide. None of the examinations confers the right to practice in any country - that is the duty of the local ophthalmologists and the government authorities. However, we believe they have proved to be a significant way of improving standards in ophthalmology worldwide.

*David Taylor FRCOphth, Director of Examinations*  
*Nicola Quilter, Examinations Executive*

**International Council of Ophthalmology**  
**11-43 Bath Street,**  
**London EC1V 9EL**  
**+44 20 7608 6949**  
**assess@icoph.org**