

THE ROYAL COLLEGE OF OPHTHALMOLOGISTS

DUKE ELDER PRIZE EXAMINATION 2022



The ROYAL COLLEGE *of*
OPHTHALMOLOGISTS

INFORMATION FOR CANDIDATES

Please read the following information carefully

This examination is intended for medical students who have completed their ophthalmology undergraduate teaching, but it is open to all medical undergraduates provided they have not graduated at the time of the examination.

Students may take the examination on more than one occasion provided they have not yet graduated and have not previously won the prize.

This examination is not a pass or fail examination; the winner is the candidate who achieves the highest score but no candidate technically passes or fails.

All candidates will receive their percentage score and ranking – in groups of 10%. Candidates within the top 10% will receive a certificate and the top 20 will receive special commendation – this is in the form of a PDF letter signed by the President of the Royal College of Ophthalmologists, sent to each medical school and to those candidates in question.

The 2 hour examination will be held on **Wednesday 9 March 2022** at 2.30pm and will be via online proctored exam delivery (see further details below).

Candidates should liaise with the medical school organiser if they wish to sit this examination. The College is only able to accept applications via medical schools in the British Isles. We are not able to accept individual applications.

Candidates must ensure that they have given their name to their medical school organiser prior to the closing date of **Monday 13 December 2021**. **No candidates will be accepted after this date.** Medical school organisers will submit the names of their medical students wishing to sit the examination to the Royal College of Ophthalmologists.

Candidates will then be sent instructions on how to pay the examination fee. The deadline for fee payment is **5pm on Monday 10 January 2022**.

Candidates who have not paid their fee by this date will not have a place at the exam. Examination fees should not be submitted to your medical school.

If you have any further queries please contact exams@rcophth.ac.uk or imogen.obrien@rcophth.ac.uk

Important Dates

Application Deadline All candidates should apply to their medical schools by this date	Monday 13 December 2021
Payment Deadline All candidates should pay the £25.00 exam fee by 5pm on this date. Instructions on how to pay will be sent directly to candidates after the application deadline*. <u>Candidates should not submit payment directly to medical schools.</u>	Monday 10 January 2022
Supporting documents for additional requirements submitted If a candidate has additional requirements, such as extra time, they must notify RCOphth and supply supporting documentation prior to this date. For more information about what documentation to supply, please contact us directly.	Monday 10 January 2022
Exam Date	Wednesday 9 March 2022
Results Date Results letters will be sent to you directly via email. Certificates will only be awarded to those ranking in the top 10%. Those in the Top 20 will receive special commendation - this is in the form of a PDF letter signed by the President of the Royal College of Ophthalmologists, sent to each medical school and to those candidates in question.	Friday 1 April 2022 If possible, the College may release results prior to this – medical schools and candidates will be notified if there are any changes to the published date.

***Please check your junk email folder**

THE DUKE-ELDER UNDERGRADUATE PRIZE IN OPHTHALMOLOGY

An undergraduate prize examination will be sponsored again this year on a national basis by The Royal College of Ophthalmologists. This examination is intended for medical students who have completed their ophthalmology undergraduate teaching, but it is open to all medical undergraduates provided they have not graduated at the time of the examination.

Students may sit the examination on more than one occasion provided they have not yet graduated and have not previously won the prize. The candidate gaining the highest mark will be offered to chance to visit St John's Eye Hospital in Jerusalem. The winning candidate can alternatively choose a cash prize of £400. There is no second prize.

The two hour examination consists of:

90 single best answer one in four Multiple Choice Questions (MCQs)

Marking is on the basis of +1 for a correct answer and 0 marks for an incorrect answer (i.e. there is no negative marking).

The standard is high and candidates should anticipate a stiffer examination than they may encounter in their own university's undergraduate examinations in ophthalmology. Questions are mostly based on clinical ophthalmology but other areas covered include ocular physiology, anatomy and pathology as well as genetics of eye conditions and socio-economic medicine relevant to ophthalmology e.g. blind registration or world blindness. In the clinical questions all the sub-speciality areas within ophthalmology are covered including:

Cornea and external eye disease

Cataract

Glaucoma

Medical retina and vitreo-retinal surgery

Strabismus and paediatric ophthalmology

Neuro-ophthalmology

Ocular adnexal and orbital disease

Refractive errors and optics

Examination Online Proctored Delivery

From 2021, the Duke Elder examination will be taken as an Online Proctored Examination, where the candidate will sit the exam at their home or their workplace, without the need to travel to a testing centre or examination venue. The examination will be taken online by being delivered over the internet to the candidate's computer at a pre-agreed examination date and time.

IMPORTANT – Please read fully and carefully all of the following including the web-links:

Please see the following document and video links which detail the examination process along with the infrastructure and hardware requirements.

Online Invigilation Candidate Quick Guide

Duke Elder Online FAQs

<https://www.rcophth.ac.uk/wp-content/uploads/2020/12/Duke-Elder-Online-Proctored-Exam-FAQs.pdf>

How to prepare for your Exam - Video link

<https://youtu.be/xsi0an49ISM>

Online Proctored Exam RCOphth Privacy Policy

<https://www.rcophth.ac.uk/wp-content/uploads/2020/07/RCOphth-OPE-Privacy-Policy-FINAL.pdf>

We recommend that you familiarise yourself with the process and system requirements as soon as possible to ensure that all processes work reliably.

System Testing

- One week prior to the examination, you will receive an e-mail from BTL with a link to complete a computer system check, as well as to re-iterate the information from this confirmation e-mail. The system check link will ensure a candidate's audio and video work properly, as well as making sure that their computer is suitable to run the software. If you do not appear to have received the e-mail please check your "junk folder".
- 72 – 24 hours before the examination, candidates will be sent another email with the links for launching the exam. These links will not activate until the start of the actual examination. The keycodes to start the exam when then be displayed to the candidate when they are just about to start the exam. The keycodes will NOT be sent to the candidate at any time before the examination.

- The examination will be available to the candidate, for the whole examination duration specified.

Rules and Regulations

1. Candidates will be required to log in at their computer at the agreed examination start time to run through ID checks and web camera/microphone set-up. The exam will then start once ID checks and set-up is complete. If you log on before the start time, you will be presented with a timer counting down to the start time.

This means that for example although 230pm is the exam start time, at 230pm you will do the pre-exam set up and THEN start the exam paper. Please note that this means that, depending on how long you take to complete the set-up, the exam paper might run past the stated exam times.

**Example: You are told to log on at 230pm
 You log on at 230pm
 You complete set-up that takes 20 mins
 At 250pm you start the exam paper
 Exam finishes at 450pm (you have the full two hours)**

2. Photographic identification (a passport or photographic driver's licence ONLY) will be checked by the proctoring system through the candidate's web camera before candidates can start the examination. The candidate must also show the whole room via their web camera or their smartphone which must also be connected as a second camera for the examination.
3. Candidates will be monitored at all times through the web camera during the examination.
4. All examinations are timed by the computer and will end automatically once the examination time has expired. Once the timing for the examination has begun, it cannot be paused. Candidates will be able to skip questions and come back to them at the end.
5. A candidate cannot be late for their examination. If they are late, their examination will be cancelled and their examination fee forfeited.
6. If a candidate wishes to raise a query during the examination, they can communicate with tech support via a chat facility.
7. The candidate's computer screen will be locked into the examination during the duration of the examination and access to any other websites or applications will not be possible.

8. Candidates are **not permitted** to use calculators in any section of the examinations.
9. Candidates are **not permitted** to use notebooks, books or any other form of written material during the examination.
10. Candidates are **not permitted** to wear any form of earplugs or headphones.
11. Candidates are **permitted** one sheet of white paper and a pencil for rough use/calculations, which must be destroyed at the end of the examination in front of the webcam by tearing into small pieces and then screwed up.
12. Candidates **must not**, at any point during the examination, look at their hands, wrists or arms, or at any mobile phone or tablet.
13. Candidates are **not permitted** to leave the room during the examination except for the designated one-hour break between examination papers.
14. Candidates are **not permitted** to wear any form of sunglasses or smart glasses.
15. Candidates are **not permitted** to wear any kind of watch or smart watch.
16. Candidates are **not permitted** to smoke or vape during the examination.
17. Candidates are **not permitted** to consult any other materials during the examination. This includes notes and textbooks.
18. Candidate are **not permitted** to eat any food during the examination. For drinks, the candidate may have one transparent tumbler of clear liquid drink that must be present at the start of the examination and not replenished at any time except for during the designated one-hour break between examination papers.
19. No other person will be permitted to be present in the room in which the candidate sits the examination.
20. Candidates are **not permitted** to communicate in any way with or seek assistance from anyone else except from the live proctor during the examination.
21. Candidates are advised to read in advance the RCOphth Online Proctored Examinations Privacy Policy and the RCOphth Policy on Allegations of Cheating and Misconduct in Examinations.
22. Candidates will **not be permitted** to visit the toilet during the examination. Toilet visits will only be permitted in the one-hour break between the examination papers. The only exceptions are for candidates who have medical conditions or pregnancy. These candidates must request the need for toilet breaks upon applying for the exam and must provide a medical letter explaining the reasons why.

23. Other than as a second camera linked to the proctoring system (as in point 3 above) candidates are **not permitted** to use mobile phones.
24. Candidates are **not permitted** to have or use any other electronic equipment or device during the examination.
25. Candidates are **not permitted** to interfere with, e.g. turn on / off, their internet connection without the permission of the online proctor.

The RCOphth will treat any breach of the above rules as cheating and does not expect to have to deal with any impropriety or issues of probity. However, we are obliged to ensure that such safeguards are in place in order that such issues cannot occur unnoticed. As such BTL provide three live and recorded streams of feedback whilst the examination is in progress online.

These three sources are:

1. the candidate's computer screen
2. the candidate's computer web camera view
3. a separate side view video-stream via a phone camera

The role of the proctor

There will be one proctor per 6-8 candidates.

It is the proctor's role to check candidates into the examination and monitor the candidates throughout for "unusual behaviours" (see rules and regulations and below). Such behaviours will be recorded on a time-line, which will then be brought to the attention of a senior RCOphth examiner after the examination to decide whether any action is required. Please note, unless there is incontrovertible serious evidence of impropriety, your examination will proceed uninterrupted to be reviewed after the event.

Internet connectivity issues

The testing processes that the candidate will have undertaken will ensure that the likelihood of a problem with the internet connection is minimised. If a candidate's internet connection does drop during the examination, no examination time will be lost as the timer will automatically pause. As the system updates every 3 seconds data loss is also likely to be minimal.

In the event of an interruption to the internet connection we recommend that the candidate tries to reconnect to the internet as soon as possible, if possible without leaving their chair or the room.

Once the internet connection is re-established the examination can proceed from where the candidate left off. The candidate will not lose any time to the interruption however, as

answers are uploaded to the server every 3 seconds, it would be advisable to quickly check the answer to the question last answered.

If the internet connection is lost entirely for the duration of the whole exam, the candidate will have to reschedule for the next examination.

If there happens to be an unforeseen event that prevents the candidate completing the examination, only with written evidence from an appropriate authority (e.g. ISP, electricity power provider) we will consider an examination fee refund and a removal of the examination attempt from the candidate's record.

The online proctor has been instructed to report unusual behaviour in relation to the candidate's internet connection. Repeatedly dropping off-line unexpectedly in the presence of a previously tested and good connection will be regarded as a suspicious behaviour, as will excessive reconnection times. Each case of lost connection will be dealt with using the data that the proctor provides to us.

Recommended Reading List

The Eye: Basic Sciences and Practice. Forrester JV, Dick AD, McMenemy P, Roberts F. WB Saunders, Elsevier. 2007 ISBN-10: 070202841X ISBN-13: 978-0702028410

MCQ companion to the Eye. Basic Sciences in Practice. Galloway PH, Forrester JV, Dick AD, Lee WR. WB Saunders 2001. ISBN-10: 0702025666 | ISBN-13: 978-0702025662 -

Clinical Optics. Elkington AR, Frank HJ and Greaney MJ. John Wiley & Sons, Blackwell Science, 1999. . ISBN: 0632049898/9780632049899 –

Clinical Anatomy of the Eye. Snell RS, Lemp MA. Blackwell Scientific Publications 1998. ISBN: 063204344X – old but can't have changed much

Clinical Ophthalmology: A Systematic Approach. JJ Kanski, B Bowling. Butterworth-Heinemann, Elsevier, 2011. ISBN-10: 0702040932 ISBN-13: 978-0702040931.

Clinical Ophthalmology: A Self-Assessment Companion. JJ Kanski, Agnes Kubicka Trzaska. Elsevier, 2007. ISBN-10: 0750675381, ISBN-13: 978-0750675383

EMQs And MCQs For The FRCOphth Part 2 [Paperback]
Patrick Chiam. Lulu Marketplace, 2011. ISBN 9781447806615

Multi Choice Questions (MCQs)

The Multiple Choice Questions used in this examination are single best answer from four.

Example Questions

1. What would be the MOST likely diagnosis in a patient with uveitis that shows bilateral and symmetric hilar adenopathy on chest X ray and has raised serum angiotensin converting enzyme level?

- A. Behcet's Disease
- B. Sarcoidosis
- C. Syphilis
- D. Toxoplasmosis

Correct Answer B

2. What is thought to be the MAIN mechanism of action of prostaglandin analogues in their use for glaucoma treatment?

- A. Decrease aqueous production in the ciliary body
- B. Increase trabecular outflow
- C. Increase uveo-scleral outflow
- D. Neuroprotection of the optic nerve head

Correct Answer C

3. Centrocaecal scotomas are MOST commonly found in patients suffering from which of the following?

- A. Amblyopia due to squint
- B. Cerebrovascular Accident (Stroke)
- C. Nutritional Optic Neuropathy (Tobacco/alcohol amblyopia)
- D. Primary Open Angle Glaucoma

Correct Answer C