

**THE ROYAL COLLEGE OF OPHTHALMOLOGISTS**

**DUKE ELDER PRIZE EXAMINATION 2024**



*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%. The top 10% of candidates will receive special commendation – this is in the form of an email addressed from the President of the Royal College of Ophthalmologists, sent to each of the top 10% candidates.

The 2 hour examination will be held on **Wednesday 18 September 2024** 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. 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 May 2024**. **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 June 2024**. 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 [preeti.attalia@rcophth.ac.uk](mailto:preeti.attalia@rcophth.ac.uk)

## Important Dates

<b>Application Deadline</b> All candidates should apply to their medical schools by this date	Monday 13 May 2024
<b>Payment Deadline</b> All candidates should pay the £50.00 exam fee by <b>5pm</b> 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 June 2024
<b>Supporting documents for additional requirements submitted</b> 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 June 2024
<b>Exam Date</b>	Wednesday 18 September 2024
<b>Results Date</b> Results letters will be sent to you directly via email. Those in the top 10% will receive special commendation - this is in the form of an email addressed from the President of the Royal College of Ophthalmologists, sent to each of the top 10% candidates.	Friday 18 October 2024  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, pharmacology, basic science, statistics, optics including ray diagrams and pathology as well as embryology, 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**

The Duke Elder examination is taken as an Online Proctored Examination, where the candidate sits the exam at their home or their workplace, without the need to travel to a testing centre or examination venue. The examination is 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/2021/01/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

NICE and RCOphth guideline and Clinical Optics Third Edition <https://amzn.eu/d/5Rhucw7>

## 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

## **Guidance for diagnostic assessment candidates with additional requirements and specific learning difficulties**

The Royal College of Ophthalmologists (RCOphth) recognise that there may be some candidates who require additional arrangements when undertaking a RCOphth examination.

The following guidance for diagnostic assessments has been developed from the recommendations of a Working Group on Specific Learning Difficulties (SpLD) within the University of Oxford, which reported in Trinity Term 2011. The recommendations are rooted in the extensive data collection, interviews, research and analysis undertaken by the group whose membership included internal and external experts.

The primary purpose of a diagnostic assessment report is to provide the candidate with a greater understanding of his / her profile of cognitive and educational strengths and weaknesses and an opportunity to consider how this profile might impact upon study. The assessment report should be used to support the candidate to develop greater self-awareness and inform strategy development in managing key academic tasks whilst studying in a demanding and challenging environment. It is imperative that a diagnostic assessment is not viewed simply as a route to obtaining accommodations, such as extra time, in examinations or extensions for written assignments.

In order to provide support and make reasonable adjustments, including examination adjustments, on the grounds of a specific learning difficulty, the RCOphth requires that:

- a full diagnostic assessment has been carried out by a psychologist or a specialist teacher which confirms the presence of a specific learning difficulty. Psychologists must be HCPC registered as a practitioner psychologist. Specialist teachers must hold a qualification recognised under the SpLD Working Group 2005/DfES Guidelines and hold a valid Assessment Practising Certificate (updated SASC guidance, March 2019);
- the assessment has been conducted when the candidate was aged 16 years or over, using individually administered, up to date, psychometrically valid and reliable tests such as those recommended by the SpLD Working Group;
- ***candidates' reports are normally no more than 5 years old at the date of entry to the examination.***
- that a signed copy of the diagnostic assessment report has been supplied to the RCOphth and that the report follows closely the guidance of the SpLD Working Group 2005/ DfES report and its subsequent updates. This applies to the tests used, the format of the report and the detail of the content. Please note that "top up" assessments are not acceptable nor are copies of the JCQ Form 8.

With reference to test selection, we ask that professionals administer the psychometric tests to assess the areas listed below to provide comprehensive evidence of the impact of difficulties on study. For assessments conducted in the UK, the test materials should be those approved by UK national professional standards bodies in line with the SpLD Working Group 2005/ DfES guidelines, and utilise the most recently available standardisation information. International reports must include the same range of assessment areas and use internationally recognised materials with similarly robust standardisation. We ask that the following core aspects are included to allow the RCOphth to make decisions about support and reasonable adjustments for a candidate with a specific learning difficulty, in line with SASC guidance, March 2019.

- Background Information and history of need to provide the context of the assessment
- Underlying cognitive ability (verbal abilities, nonverbal abilities, working memory, phonological processing, visual processing)
- Attainment (reading, spelling, writing, maths as appropriate)
- Other relevant areas (motor coordination, attention as relevant if they are suspected as causing further difficulties)

Qualitative commentary regarding the approach to each assessment task and the anticipated impact of any observations on academic study activities such as reading, research, note taking, planning, writing, proofreading and editing etc.

Further Information can be found on the SpLD Assessment Standards Committee website on their SpLD Assessment page. This includes the diagnostic assessment report proforma, the SpLD Working Party 2005 / DfES report and its 2019 update

<http://www.sasc.org.uk/SASCDocuments/Post%20-%2016%20Diagnostic%20Assessment%20Report%20120219.pdf> update

Recommendations for examination arrangements should be clearly and explicitly stated, with any time allowances quantified. This would normally be where at least 2 areas of cognitive functioning resulted in scores less than 85 (i.e. below the average range) The standard extra time allowance for candidates with SpLDs is 25% (15 minutes per hour) both for hand written and electronic exams. Any recommendation for additional extra time over the standard 25% would need to be fully justified with evidence of a very substantial impact on measures of attainment. The RCOphth will consider all reasonable adjustments to examinations including the use of assistive technology. Diagnostic assessors and candidates should be aware that the final decision on adjustments rests with the Chair of the Examinations Committee.

All candidates who require additional arrangements must adhere to the guidelines set out above. Candidates must note that upon receipt of sufficient evidence additional arrangements may not necessarily be granted.

In awarding additional arrangements, the RCOphth seeks to:

1. Approve valid arrangements and access to written and clinical examinations.
2. Give special consideration to candidates where specific circumstances have arisen at or near to the examination time which have not previously been highlighted.
3. Ensure that no additional arrangement gives an unfair advantage over another candidate

When submitting their application form applicants must indicate if additional arrangements are needed and supporting evidence must be provided at the time of application.