

Level 6 Certificate in Contact Lens Practice

Unit 1: Ocular Anatomy, Physiology and Related Pathology

Principal Examiner:
L Dunning FBDO CL



abdo

Summer 2024
Duration: 2 hours

Candidate Number:

Date:

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Seating Location:

Answer **Four** questions only.

Please tick below the numbers of the questions attempted:

1	<input type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4	<input type="checkbox"/>	5	<input type="checkbox"/>
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Number of Supplementary Sheets used (if any), including graph paper.

For office use only

Question number	1	2	3	4	5	Total	
						Overall	%
Marks							
Moderated							
Borderline (57%-62%)	Please tick the box to acknowledge that this is a borderline result and confirm that the marks have been checked in terms of allocation and addition.						

Examiner's
Signature

Moderator's
Signature

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Question 1

Write brief notes on the following conditions, in each case describe the causes, signs, symptoms, management, and any implications for contact lens wear.

- | | | |
|----|---------------------------------------|-------------------|
| a) | xanthelasma | (25 marks) |
| b) | Recurrent epithelial erosion syndrome | (25 marks) |
| c) | Sub conjunctival haemorrhage | (25 marks) |
| d) | Bullous Keratopathy | (25 marks) |

- a) xanthelasma (25 marks)**

b) Recurrent epithelial erosion syndrome

(25 marks)

c) Sub conjunctival haemorrhage

(25 marks)

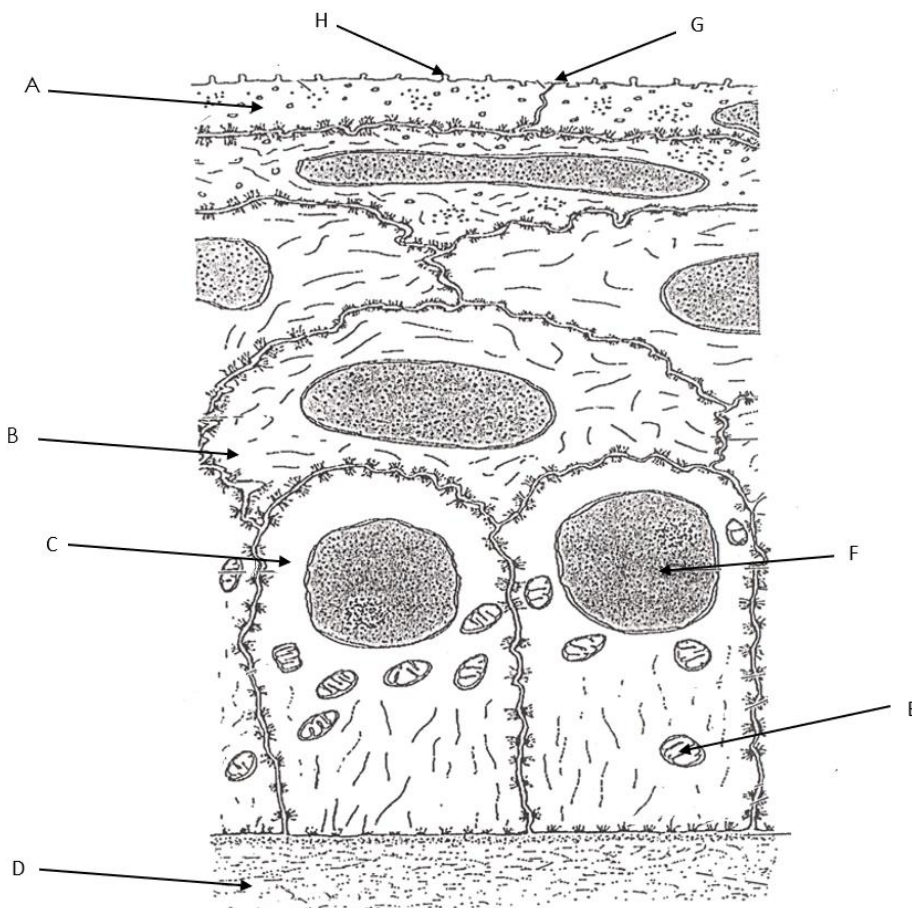
d) Bullous Keratopathy

(25 marks)

Question 2

- a) **Name** the structures A to H shown on the diagram of the corneal epithelium below. **(24 marks)**
- b) **Describe** the signs and symptoms of acanthamoeba keratitis. What action should a contact lens practitioner take if such an incidence is suspected? **(36 marks)**
- c) **Describe** the healing process of the corneal epithelium. **(30 marks)**
- d) Which soft contact lens parameters can influence corneal oxygen supply? **(10 marks)**

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- a) **Name** the structures A to H shown on the diagram of the corneal epithelium below. **(24 marks)**



- (36 marks)**

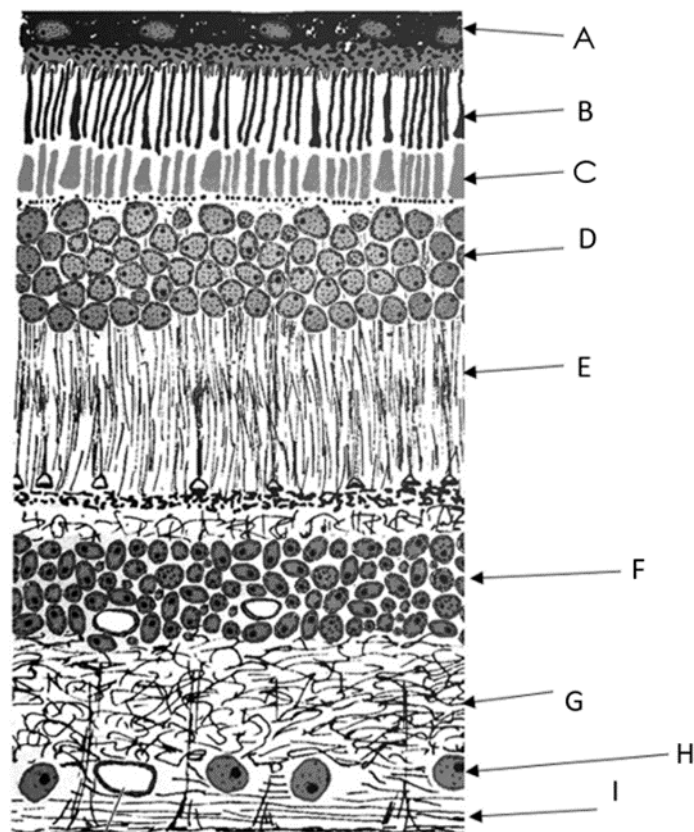
c) **Describe** the healing process of the corneal epithelium. **(30 marks)**

(10 marks)

Question 3

- a) **Name** the structures A-I of the retinal structures on the diagram below. (27 marks)
- b) **Differentiate** the photoreceptors found in the retina, include descriptions of the structural characteristics, visual sensitivities, population and photopigments of these cells. (40 marks)
- c) **What symptoms** would an individual with Retinitis Pigmentosa experience? (15 marks)
- d) **What advice** would you give to someone following a dilation appointment with an anti-muscarinic drug such as tropicamide or cyclopentolate? (18 marks)

- a) **Name** the structures A-I of the retinal structures on the diagram below. (27 marks)



c) **What symptoms** would an individual with Retinitis Pigmentosa experience?

(15 marks)

d) **What advice** would you give to someone following a dilation appointment with an anti-muscarinic drug such as tropicamide or cyclopentolate?

(18 marks)

Question 4

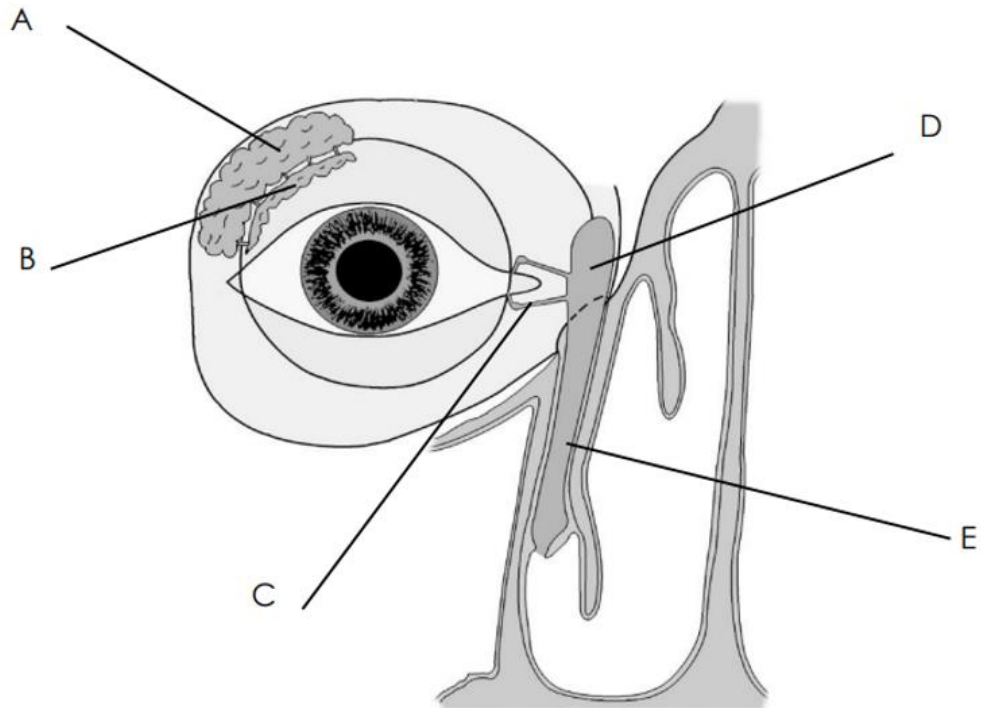
- | | | |
|----|--|-------------------|
| a) | i) Where and how are the components of the tears formed? | (30 marks) |
| | ii) Describe the function of these tear components. | (24 marks) |
| c) | A CL wearer has aqueous deficient dry eye, list the signs and the management options available. | (28 marks) |
| d) | Label the structures A-F of the lacrimal drainage system. | (18 marks) |

- a) i) Where and how** are the components of the tears formed? **(30 marks)**

- c) A CL wearer has aqueous deficient dry eye, **list** the signs and the management options available.

(28 marks)

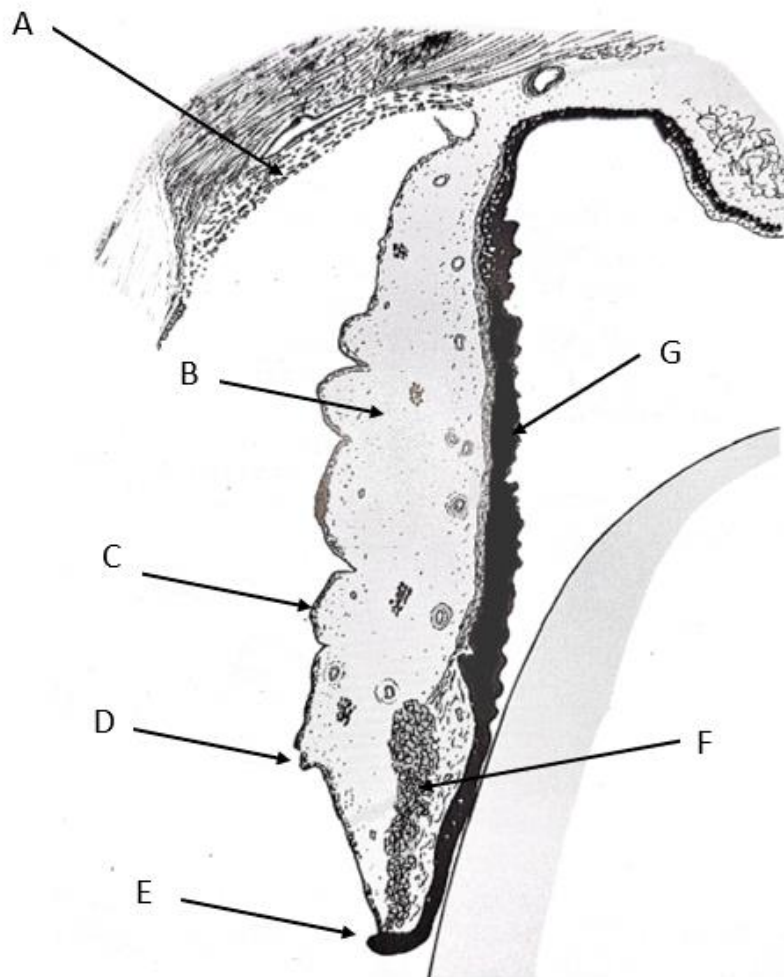
d) **Label** the structures A-F of the lacrimal drainage system. **(18 marks)**



Question 5

- a) **Label** the structures A-G of the iris on the diagram below. **(21 marks)**
- b) **Describe** the anterior border layer, include location and any special features found there. **(24 marks)**
- c) **Name and describe** the muscles of the iris, include location, Muscle type, function, any relevant dimensions and innervation **(45 marks)**
- d) **Name** 2 pathological conditions that can affect the iris. **(10 marks)**

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- a) **Label** the structures A-G of the iris on the diagram below. **(21 marks)**



- (24 marks)**

- (45 marks)**

d) **Name** 2 pathological conditions that can affect the iris. **(10 marks)**

End of questions for this paper

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Important Instructions to Candidates

Please read carefully and follow these instructions when told to do so by the Examiner/Invigilator.

1. You will be given 5 minutes at the beginning of the examination to read through the questions.
2. **Please enter your candidate number and date in the boxes on the front cover of this booklet.**
3. Please **DO NOT write your name** on the booklet. Candidates must remain anonymous for marking purposes.
4. Candidates must answer questions legibly, using blue/black ink or ball-point pen. *Pencil may be used for graphs and diagrams only.*
5. Candidates please note, the examination paper has been designed for you to answer the stated number of questions within the allotted time.
6. Candidates must read each question carefully and make sure that you know what you have to do before starting your answer.
7. Candidates must write the answer to each question in the space provided. Additional paper may be used if necessary but you must show your Candidate Number and question number(s) clearly at the top of each page.
8. Please do not write in the margins.
9. Any extra pages used should be securely fastened together using a treasury tag. This includes any diagrams, additional graph paper or any continuation paper.
10. Candidates are advised to carefully cross out any work not intended to be marked by the Examiner.
11. Please do not tear out any part of this booklet. All work must be handed in.

Important Information for Candidates

1. Answer **FOUR** questions only.
2. Answer all parts for each question.
3. Where relevant, the marks awarded for each part of a question are given in brackets, e.g. **(10 marks)**.
4. This entire document consists of 24 pages. Any blank pages are indicated.

When told to do so by the Invigilator, you may turn the paper over and begin.