

Level 6 Certificate in Contact Lens Practice

Unit 1 – Ocular Anatomy, Physiology and Related Pathology



Principal Examiner:
Jennifer McMahon BOptom (Hons) MCOptom

Summer 2022
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.						<input type="checkbox"/>

Examiner's Signature	
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Moderator's Signature	
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Question 1

Write brief notes on the following conditions, in each case describing the causes, signs, symptoms and management.

- | | | |
|----|-----------------------------|-------------------|
| a) | Ptosis | (25 marks) |
| b) | Meibomian Gland Disease | (25 marks) |
| c) | subconjunctival haemorrhage | (25 marks) |
| d) | Bullous keratopathy | (25 marks) |

Write brief notes on the following conditions, in each case describing the causes, signs, symptoms and management.

- Q1a) Ptosis (25 marks)**

Q1b) Meibomian Gland Disease

(25 marks)

Q1c) subconjunctival haemorrhage

(25 marks)

Q1d) Bullous keratopathy

(25 marks)

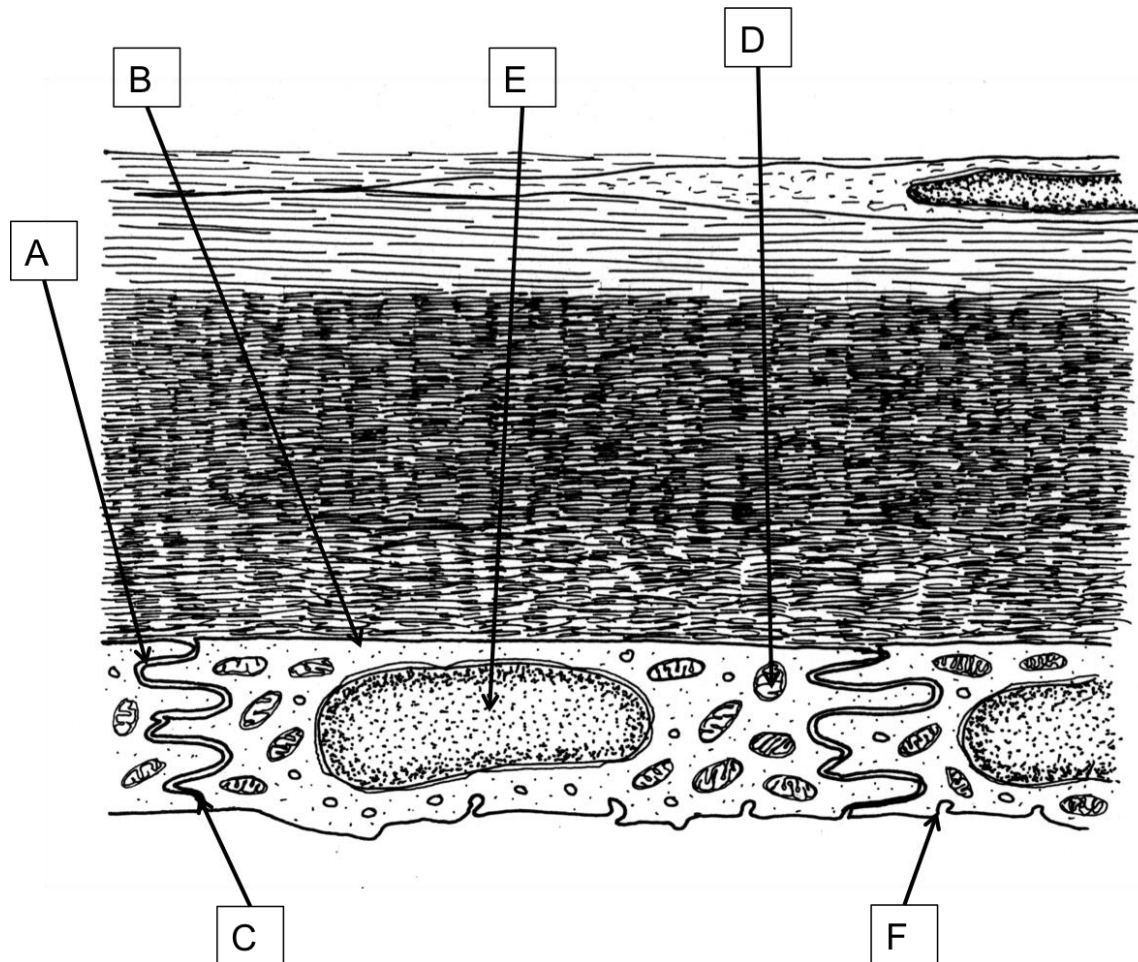
Please use this page should you need extra space for any part of Question 1. You must make clear which part of Question 1 is being answered.

Question 2

- List** the functions of the corneal endothelium. (20 marks)
- Name** the structures labelled A-F on the diagram of the corneal endothelium. (18 marks)
- Describe three** endothelial changes that may occur if the cornea becomes hypoxic during CL wear including their clinical appearance and how this may be graded. (27 marks)
- Name 5** factors to consider in contact lens selection to minimise the risk of hypoxia and for each one **explain** the implication. (35 marks)

Q2a) List the functions of the corneal endothelium. **(20 marks)**

Q2b) Name the structures labelled A-F on the diagram of the corneal endothelium. (18 marks)



A	
B	
C	
D	
E	
F	

Q2c) Describe three endothelial changes that may occur if the cornea becomes hypoxic during CL wear including their clinical appearance and how this may be graded.

(27 marks)

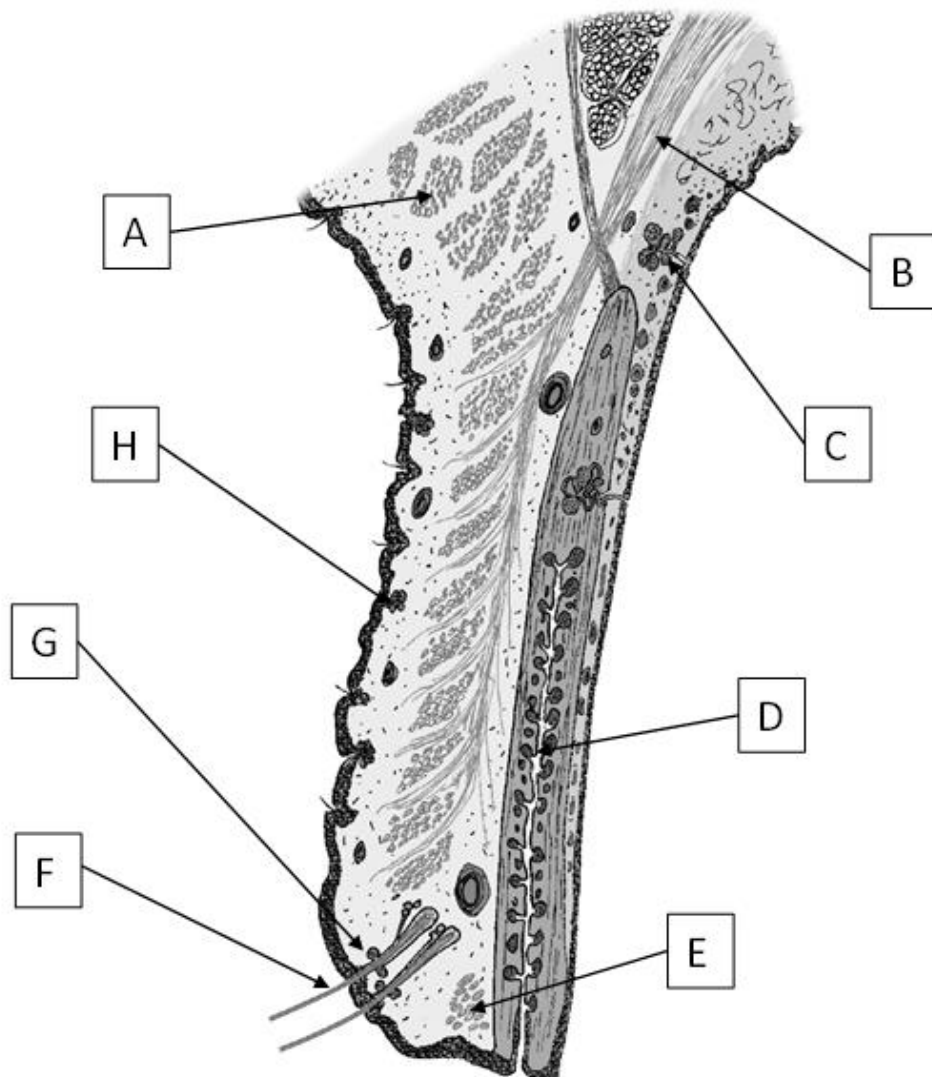
Q2d) Name 5 factors to consider in contact lens selection to minimise the risk of hypoxia and for each one explain the implication. (35 marks)

Please use this page should you need extra space for any part of Question 2. You must make clear which part of Question 2 is being answered.

Question 3

- a) **Name** the structures A to H shown on the diagram of the upper eyelid below. **(32 marks)**
- b) Use a table to list the 4 muscles of the eyelid and for each one state its type (i.e. smooth / skeletal), function and nerve supply. **(32 marks)**
- c) **Discuss** the signs, symptoms, management and implications for contact lens wear of ectropian. **(36 marks)**

Q3a) **Name** the structures A to H shown on the diagram of the upper eyelid below. **(32 marks)**



A	
B	
C	
D	
E	
F	
G	
H	

Q3b) Use a table to list the 4 muscles of the eyelid and for each one state its type (i.e. smooth / skeletal), function and nerve supply.

(32 marks)

Q3c) Discuss the signs, symptoms, management and implications for contact lens wear of ectropion.

(36 marks)

Please use this page should you need extra space for any part of Question 3. You must make clear which part of Question 3 is being answered.

Question 4

- Name** the functions of the choroid. (20 marks)
- Describe** the structure of the choroid giving details of the features of each component layer. (24 marks)
- List** the signs and symptoms of acute anterior uveitis. (32 marks)
- Explain** how Acute Anterior Uveitis may be managed in primary and secondary care. (24 marks)

Q4a) Name the functions of the choroid. **(20 marks)**

Q4b) Describe the structure of the choroid giving details of the features of each component layer.

(24 marks)

Q4c) List the signs and symptoms of acute anterior uveitis.

(32 marks)

Q4d) Explain how Acute Anterior Uveitis may be managed in primary and secondary care. **(24 marks)**

Please use this page should you need extra space for any part of Question 4. You must make clear which part of Question 4 is being answered.

Question 5

- Describe** the structure, origins and functions of each of the layers of the pre corneal tear film. **(40 marks)**
- Explain** how dry eye manifests clinically and **describe** the management options for contact lens wearers. **(40 marks)**
- List** systemic medication types that can contribute to dry eye. **(20 marks)**

Q5a) Describe the structure, origins and functions of each of the layers of the pre corneal tear film. **(40 marks)**

Q5b) Explain how dry eye manifests clinically and **describe** the management options for contact lens wearers.

(40 marks)

Q5c) List systemic medication types that can contribute to dry eye. **(20 marks)**

Please use this page should you need extra space for any part of Question 5. You must make clear which part of Question 5 is being answered.

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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. For all calculation questions, please work to at least 4 decimal places.
12. 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. Separate graph paper has been provided. *Please read point 9 above.*
4. Where relevant, the marks awarded for each part of a question are given in brackets, e.g. **(10 marks)**.
5.   These symbols indicate that a diagram/calculation is required or a diagram needs annotating.
6. This entire document consists of 28 pages. Any blank pages are indicated.

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