# Level 6 Certificate in Contact Lens Practice

Unit 1: Ocular Anatomy, Physiology and Related Pathology

Principal Examiner: L Dunning FBDO CL



Winter 2024
Duration: 2 hours

Candidate Numbe	er:	Date	e:			Sea	ting Location:
Answer <b>Four</b> que	stions only	<b>/</b> .					
Please tick belov	v the num	bers of t	he quest	tions atte	empted:		
1 🗌	2		3		4		5
Number of Si		tary Shee	ets used (i	f any), ind	cluding gr		
Question number	1	2	3	4	5	Overall	Total %
Marks						Overdi	70
Moderated							
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				Moder Signati			

This booklet is the property of the ABDO and **must not be removed** by the candidate from the examination room.

# This page has been left blank.

### 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)	Chalazion	(25 marks	
b)	Ptosis	(25 marks	
c)	Entropion	(25 marks	
d)	Meibomian gland dysfunction	(25 marks	
a)	Chalazion	(25 marks	

b)	Ptosis	(25 marks

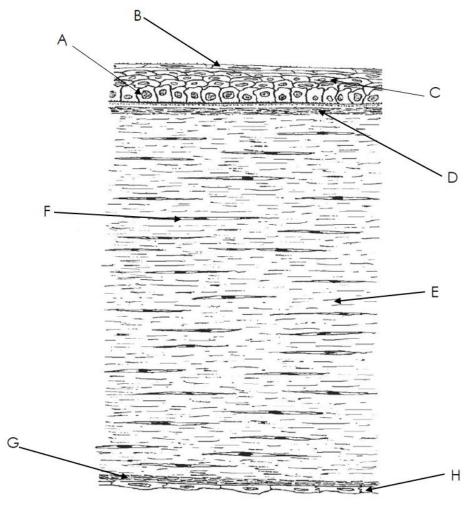
c)	Entropion	(25 marks)

d)	Meibomian gland dysfunction	(25 marks)

# Question 2

a)	<b>Name</b> the structures A to H shown on the diagram of the cornea below.	(24 marks)
b)	<ul> <li>i) Discuss the signs, symptoms and management of bacterial keratitis</li> </ul>	(30 marks)
	ii) What risk factors are associated with developing this infection in contact lens wearers?	(8 marks)
c)	<b>What</b> is the nerve supply of the cornea? <b>Explain</b> why the sensitivity of the cornea is high but localisation of a foreign	<b>(2)</b>
	body is poor.	(26 marks)
d)	<b>List</b> the functions of the corneal endothelium.	(12 marks)
a)	Name the structures A to H shown on the diagram of the	(24 marks)

cornea below. (24 marks)



		Winter 2024
b)	i) <b>Discuss</b> the signs, symptoms and management of bacterial keratitis	(30 mark

Contact Lens Unit 1 – Ocular Anatomy, Physiology and Related Pathology

	Contact Lens Unit 1 – Ocular Anatomy, Physiology and Rela	ted Pathology Winter 2024
b)	ii) <b>What</b> risk factors are associated with developing this infection in contact lens wearers?	(8 marks)

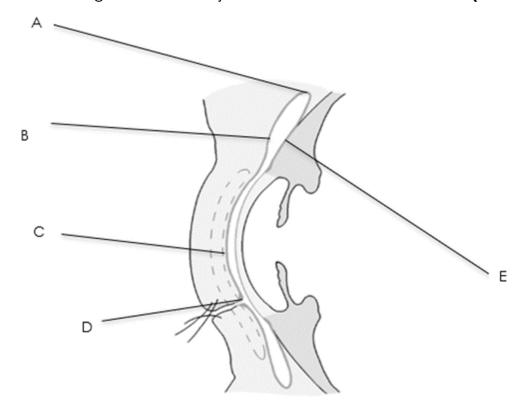
c)	<b>What</b> is the nerve supply of the cornea? <b>Explain</b> why the sensitivity of the cornea is high but localisation of a foreign	
	body is poor.	(26 marks)

	ny, Physiology and Related Pathology Winter 2024
unctions of the corneal endoth	nelium. (12 mark

### **Question 3**

Label the regions of the conjunctiva A-E a) (15 marks) b) Describe the structure, location and vessels of the bulbar and the marginal conjunctiva. (36 marks) Compare and contrast papillae and follicles, include c) possible conditions that may cause this pathology to occur on the conjunctiva. (33 marks) d) What initial management options and advice would you give a CL wearer with allergic conjunctivitis. (16 marks)

a) Label the regions of the conjunctiva A-E (15 marks)



b)	<b>Describe</b> the structure, location and vessels of the bulbar and the marginal conjunctiva.	(36 marks)

	Contact Lens Unit 1 – Ocular Anatomy, Physiology and Rel	ated Pathology Winter 2024
c)	Compare and contrast papillae and follicles, include possible conditions that may cause this pathology to occur on the conjunctiva.	(33 marks
	occor on me conjunctiva.	(55 marks)

Winter 202	Contact Lens Unit 1 – Ocular Anatomy, Physiology and Relate
(16 marl	What initial management options and advice would you give a CL wearer with allergic conjunctivitis.
(16 marl	What initial management options and advice would you give a CL wearer with allergic conjunctivitis.
(16 marl	<b>What</b> initial management options and advice would you give a CL wearer with allergic conjunctivitis.
(16 mar	What initial management options and advice would you give a CL wearer with allergic conjunctivitis.
(16 mar	What initial management options and advice would you give a CL wearer with allergic conjunctivitis.
(16 mar	What initial management options and advice would you give a CL wearer with allergic conjunctivitis.
(16 mar	What initial management options and advice would you give a CL wearer with allergic conjunctivitis.
(16 mar	What initial management options and advice would you give a CL wearer with allergic conjunctivitis.
(16 mar	What initial management options and advice would you give a CL wearer with allergic conjunctivitis.
(16 mar	What initial management options and advice would you give a CL wearer with allergic conjunctivitis.
(16 mar	What initial management options and advice would you give a CL wearer with allergic conjunctivitis.
(16 mar	What initial management options and advice would you give a CL wearer with allergic conjunctivitis.
(16 marl	What initial management options and advice would you give a CL wearer with allergic conjunctivitis.
(16 mar	What initial management options and advice would you give a CL wearer with allergic conjunctivitis.

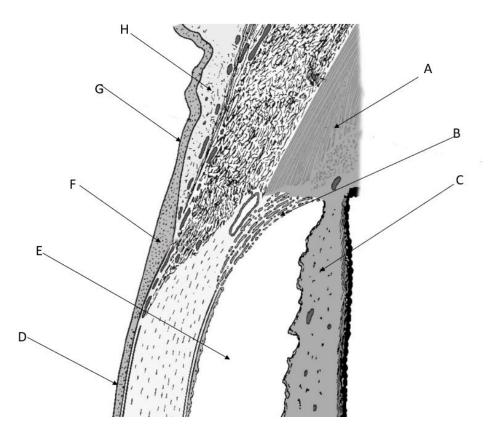
Questi	ion 4	
a)	<b>Describe</b> the structure of the macula. Explain how its specialised structure is able to produce maximum visual acuity.	(36 marks)
b)	<b>List</b> 5 risk factors for retinal detachment.	(20 marks)
c)	<b>List</b> possible presenting symptoms of acute angle closure glaucoma.	(20 marks)
d)	<b>Label</b> the structures of corneo-scleral junction A-H on the diagram below.	(24 marks)
a)	<b>Describe</b> the structure of the macula. Explain how its specialised structure is able to produce maximum visual acuity.	(36 marks)

	Contact Lens Unit 1 – Ocular Anatomy, Physiology o	and Related Pathology Winter 2024
b)	List 5 risk factors for retinal detachment.	(20 marks

	Contact Lens Unit 1 – Ocular Anatomy, Physiology and Relate	ed Pathology Winter 2024
-1	Palaca Palaca Para a santa sa fara la casala alaca sa	
c)	<b>List</b> possible presenting symptoms of acute angle closure glaucoma.	(20 mark

Cor	ntact Lens Unit 1 – O	cular Anatomy,	Physiology and Rel	ated Pathology Winter 2024

d) **Label** the structures of corneo-scleral junction A-H on the diagram below. (24 marks)

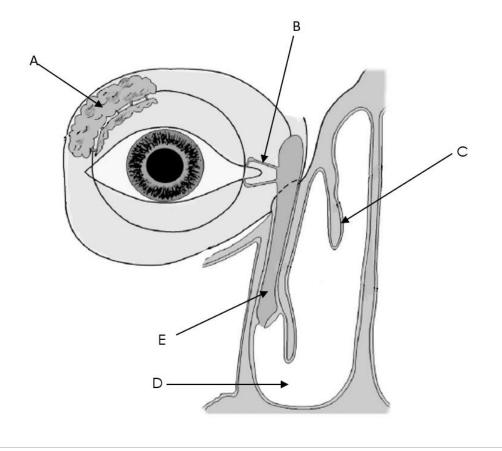


Questi	on 5	
a) b) c) d)	Describe five functions performed by the pre-corneal tear film. Name the layer(s) responsible for each particular function you have listed.  Label the following diagram A-E.  Describe the causes, signs and symptoms of Canaliculitis.  Explain in short how the following five factors increase the incidence of dry eye: Age, Medications, Environment, Systemic conditions and contact lens wear.	(40 marks) (15 marks) (30 marks)
a)	<b>Describe</b> five functions performed by the pre-corneal tear film. Name the layer(s) responsible for each particular function you have listed.	(40 marks)

Contact Lens Unit 1 – Ocular Anatomy, Physiology and Related Po Wir	athology nter 2024

# b) **Label** the following diagram A-E.

(15 marks)



C)	<b>Describe</b> the causes, signs and symptoms of Canaliculitis.	(30 marks

Contact Lens Unit 1	– Ocular Anatomy	. Physiology and Rel	ated Pathology Winter 2024

d)	<b>Explain</b> in short how the following five factors increase the incidence of dry eye: Age, Medications, Environment,	
	Systemic conditions and contact lens wear.	(15 marks)

End of questions for this paper

This page has been left blank.

### DO NOT TURN THIS PAPER OVER UNTIL ADVISED TO DO SO BY THE INVIGILATOR

### 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.