

Level 4 Diploma for Optical for Optical Assistants

Units 4 – The Provision of Spectacles in Optical Practice



Winter 2020
Duration: 2 hours

Candidate Number:

--	--	--	--	--	--

Date:

		/			/		
--	--	---	--	--	---	--	--

Seating Location:

--	--	--

Answer ALL Four Questions

☐

Number of Supplementary Sheets used (if any), including graph paper.

For office use only

Question number	1	2	3	4	Total	
					Overall	%
Marks						
Moderated						
Borderline (40%-55%)	<input type="checkbox"/>					

Examiner's Signature	
-------------------------	--

Moderator's Signature	
--------------------------	--

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

Q1a)	<p>The lens -6.50DS/+1.25DC x 90 is to be dispensed into a 46mm round eye frame and the eye is sitting centrally in the frame.</p> <p>Where is the thickest lens edge?</p>	(2 marks)
-------------	--	------------------

<p>Q1b)</p>	<p>Discuss two advantages and two disadvantages for each of the following dispensing options for the lens in Q1a) compared with the other stated options:</p> <ul style="list-style-type: none"> i) Standard plastics CR39 lenses ii) 1.59 index polycarbonate lenses iii) 1.70 index glass lenses 	<p>(12 marks)</p>
--------------------	--	--------------------------

Q1c)	Why would the ordering of minimum substance surfacing for this lens not be of benefit to this patient?	(3 marks)
-------------	--	------------------

Q1d)	Apart from changing the refractive index of the lens, what other suggestions could you make to the patient to reduce the thickness of the lens?	(3 marks)
-------------	--	------------------

Question 2

<p>Q2a)</p>	<p>A presbyopic patient requires the prescription:</p> <p>R +2.50DS/-0.75DC x 20 L +2.00DS /- 0.50DC x 170 Add +1.25 DS R&L</p> <p>The patient has previously worn single vision distance lenses only and is now going to try progressive power lenses for the first time.</p> <p>Explain why the patient can no longer manage with their single vision distance lenses.</p> <p>Give two facts in your answer.</p>	<p>(2 marks)</p>
--------------------	---	-------------------------

<p>Q2b)</p>	<p>State five factors that will influence your choice of progressive lens type.</p>	<p>(5 marks)</p>
--------------------	--	-------------------------

Q2c)	Where is the fitting cross generally positioned on the face in a standard progressive power lens? Discuss both vertical and horizontal positioning.	(2 marks)
-------------	---	------------------

Q2d)	State three additional measurements that may be required if personalised progressive power lenses are to be dispensed.	(3 marks)
-------------	---	------------------

Q2e)	If the frame is found to be positioned lower on the face than expected when the spectacles return from the laboratory, what effect will this have on the patient's ability to use the spectacles?	(3 marks)
-------------	--	------------------

Q2f)	State five pieces of advice in relation to wear and care of their spectacles that you would you give to a patient who is collecting their first pair of progressive power lenses.	(5 marks)
-------------	--	------------------


Question 3

Q3a)	Why is it important that spectacles fit properly and do not slip?	(4 marks)
-------------	---	------------------

Q3b)	Explain the relevance of the "fitting triangle".	(2 marks)
-------------	--	------------------

Q3c)	Describe a suitable order for assessing the fit of a pair of spectacles and give details of what should be observed. Your answer should include 14 facts.	(14 marks)
-------------	---	-------------------

Question 4

<p>Q4a)</p>	<p>Describe, or  show on clearly labelled diagrams, each of the following frame measurements that are required for the supply of a new pair of spectacles to a patient:</p> <ul style="list-style-type: none"> i) Horizontal eyesize ii) Distance between lenses iii) Length to bend iv) Head width v) Downward angle of drop. 	<p>(10 marks)</p>
--------------------	---	--------------------------

Q4b)	Describe how to take the distance interpupillary distance (PD) for an adult patient.	(2 marks)
-------------	--	------------------

Q4c)	Explain how the taking of this measurement will differ if the patient has a strabismus (squint).	(1 mark)
-------------	--	-----------------

Q4d)	Why is the accurate measurement of PD important?	(2 marks)
-------------	--	------------------

Q4e)	State two possible visual effects for the patient if the PD is incorrect?	(2 marks)
-------------	--	------------------

Q4f)	If the spectacles are for near vision, what measurement is required instead of PD?	(1 mark)
-------------	--	-----------------

Q4g)	If the spectacle prescription is over 5.00D , what additional measurement is needed and why is it important in this situation?	(2 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. Before you start to answer any question, take a few minutes to read through the paper.
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. You must answer questions legibly, using blue/black ink or ball-point pen. **Pencil may be used for graphs and diagrams only.**
5. Please note the examination paper has been designed for you to answer the stated number of questions within the allotted time.
6. You must read each question carefully and make sure that you know what you have to do before starting your answer.
7. You 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. You are advised to carefully cross out any work not intended to be marked by the Examiner.
11. When answering mathematical questions, write **ALL YOUR CALCULATIONS IN FULL**. Even if you get the final answer wrong, you may get credit for the parts of the calculation that are correct.
12. Please do not tear out any part of this booklet. All work must be handed in.

Important Information for Candidates

1. Answer **ALL Four** questions.
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.  ■ These symbols indicate that a diagram/calculation is required or a diagram needs annotating.
5. This entire document consists of 14 pages. Any blank pages are indicated.