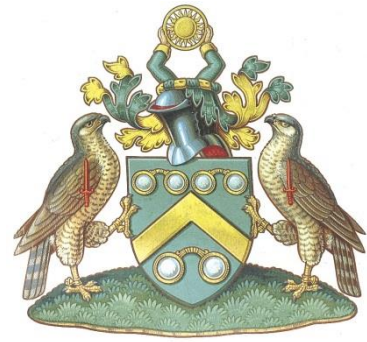


# Worshipful Company of Spectacle Makers



Certificate in Optical Care at SCQF Level 7

Unit 2 - Optical Screening

**Duration: 1 hour**

Candidate Number:

Date:

Answer **ALL** questions.

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

## For office use only

|                 | Unit 2 |   |   | Total |   |
|-----------------|--------|---|---|-------|---|
| Question number | 1      | 2 | 3 | Marks | % |
| Marks           |        |   |   |       |   |
| Moderated       |        |   |   |       |   |

Examiner's signature

Moderator's signature

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**Question 1**

- a) Transpose the following prescription into alternate sphere cylinder form

**R:** + 3.00DS/-0.75DC x 70 **L:** +2.00/-2.50DCDC X 35

**(2 marks)**

- i) **R:** +2.25DS/-0.75DC x 150 **L:** -0.50DS/-2.50DC X 145  
ii) **R:** +2.25DS/+0.75DC x 160 **L:** -0.50/+2.50DC X 125  
iii) **R:** +3.00DS/+2.25DC x 150 **L:** +2.00DS/-0.50DC X 145  
iv) **R:** +3.00DS/+2.25DC x 160 **L:** +2.00DS/-0.50DC x 125

- b) A patient attends for visual screening wearing a pair of **bifocal** spectacles which measure

**R:** -2.00/-0.50 x 180 **L:** -1.00DS Add +2.00

Which trial lenses would you use during the testing?

**(2 marks)**

- i) **R:** Plano/-0.50x180 **L:** Plano  
ii) No lenses  
iii) **R:** No lens **L:** +1.00  
iv) **R:** +2.00/+0.50 x 180 **L:** +2.00DS

- c) A patient attends for visual screening wearing a pair of **PPL** spectacles which measure

**R:** -5.00/-0.50 x 180 **L:** -6.00DS Add +3.00

Which trial lenses would you use during the testing?

**(2 marks)**

- i) **R:** Plano/-0.50x180 **L:** Plano  
ii) No lenses  
iii) **R:** -2.50/+0.50 x 90 **L:** -3.00DS  
iv) **R:** -2.50/-0.50 x 90 **L:** -3.00DS

**Question 1**

**d)** Which of the following is a **contact tonometer**? **(2 marks)**

- i)** IntelliPuff
  - ii)** Goldmann
  - iii)** Reichert
  - iv)** Pulsair
- 
- 

**e)** Which of the following might reduce the accuracy of **tonometry**? **(2 marks)**

- i)** Breathing normally
  - ii)** Relaxed lids
  - iii)** Tight neck wear
  - iv)** Angling the tonometer
- 
- 

**f)** Which of the following would not be classed as an **Optical Emergency**? **(2 marks)**

- i)** Iritis
  - ii)** Wet macular degeneration
  - iii)** Open angle glaucoma
  - iv)** Fungal keratitis
- 
- 

**g)** Which of the following might limit the clarity of a **fundus** photograph? **(2 marks)**

- i)** Large pupil
  - ii)** Contact lens
  - iii)** Steeply curved cornea
  - iv)** Lens opacities
- 
-

**Question 1**

**h)** Which instrument is used to create **3D images** of **internal retinal tissues**? **(2 marks)**

- i)** Gonioscope
  - ii)** Auto refractor
  - iii)** Optical coherence tomography
  - iv)** Digital fundus imaging
- 
- 

**i)** Which of the following actions could improve the accuracy of an **auto refractor** result? **(2 marks)**

- i)** Increasing the background light level in the screening area
  - ii)** Encouraging patient to look to one side of the target
  - iii)** Instructing patient to close their other eye
  - iv)** Advising the patient they should allow their eyes to 'relax'
- 
- 

**j)** Which technique may be used in place of an auto refractor? **(2 marks)**

- i)** Volk Indirect Ophthalmoscopy
  - ii)** Retinoscopy
  - iii)** Fluorescein Angiography
  - iv)** Optical Coherence Tomography
- 
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**Question 2**

**a)** How can **auto refractors** be used in practice to improve the effectiveness of the eye examination? **(5 marks)**

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2. Please ensure your candidate number and date are in the boxes on the front cover of this booklet.
3. Please **DO NOT** write your name on this booklet. Candidates must remain anonymous for marking purposes.
4. Write your answers as clearly as you can, using a black/blue pen only. Do not use a pencil. If the examiner cannot read your writing or figures you may lose marks, or even receive no marks at all. **Pencils may only be used for graphs and diagrams.**
5. You should read each question carefully and make sure that you know what you have to do before you start to answer.
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7. Please do not write in the margins.
8. Make sure your diagrams are as clear and neat as possible; you will get marks for doing so. If you need to draw a graph use as large a scale as practicable; this will give the most accurate answer.
9. 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.
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