December 17 - Refraction Certificate - London

Centre: &Centre  Circuit: &Circuit  Candidate: &CandNo &CandName

Cycloplegic Retinoscopy 1 (No Trial Frame) - Right Eye
(15 marks total)

Question 1

Please use a retinoscope to ascertain the retinoscopy values of the right eye. Please record the gross retinoscopy, i.e. without removing the working distance, in the box provided.

You may use any format (positive cylinder, negative cylinder or power cross). If multiple formats or answers are provided you MUST clearly indicate which answer you wished to be marked.

Do not enter your final refraction here; you must enter this in Question 3 in order to gain maximum marks.

Question 2.

Please write down your usual working distance in metres/cm and dioptres (1 mark).

Question 3

Please correct your retinoscopy for working distance (only) and write down the answer in prescription format using either positive or negative cylinders. (2 marks for calculations)

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<thead>
<tr>
<th>Sph</th>
<th>Cyl</th>
<th>Axis</th>
<th>Prm</th>
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</table>

FOR EXAMINERS’ USE ONLY:

Convert candidate’s retinoscopy to a final refraction using their WD.

Correct “full refraction” i.e. net of WD

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<th>Sph</th>
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FOR ADMINISTRATION USE ONLY:

Marking order: 1
Cycloplegic Retinoscopy 2 (No Trial Frame) - Left Eye
(15 marks total)

**Question 1**
Please use a retinoscope to ascertain the retinoscopy values of the left eye. Please record the gross retinoscopy, i.e. without removing the working distance, in the box provided.

You may use any format (positive cylinder, negative cylinder or power cross). If multiple formats or answers are provided you MUST clearly indicate which answer you wish to be marked.

Do not enter your final refraction here; you must enter this in Question 3 in order to gain maximum marks.

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**Question 2**
Please write down your usual working distance in metres/cm and dioptres (1 mark).

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**Question 3**
Please correct your retinoscopy for working distance (only) and write down the answer in prescription format using either positive or negative cylinders. (2 marks for calculations)

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<tr>
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FOR EXAMINERS' USE ONLY:
Convert candidate's retinoscopy to a final refraction using their WD

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Correct "full refraction" i.e. not of WD

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FOR ADMINISTRATION USE ONLY
Marking order: 2
Subjective Refraction Cylinder - (15 marks total)

You are provided with a starting refraction for the Right/Left eye, the uncorrected visual acuity, and the age of the patient.

Place lenses in the trial frame provided.
Refine the Cylinder (Power and/or Axis).
Modify the Sphere if required.

Enter your answer in the prescription box below and record Best Visual Acuity achieved.

Question 1

Please write your final answer in the prescription boxes below and the best corrected visual acuity achieved.
(15 marks: 6 for technique, 8 for refraction and 1 mark for visual acuity).

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VA

Technique

Starting “mid point” refraction:

Correct refraction and VA:

FOR ADMINISTRATION USE ONLY
Marking order: 9
### Question 1

Please use a retinoscope to ascertain the retinoscopy values of the right eye. Please record the gross retinoscopy, i.e. without removing the working distance, in the box provided.

You may use any format (positive cylinder, negative cylinder or power cross). If multiple formats or answers are provided you MUST clearly indicate which answer you wish to be marked.

Do not enter your final refraction here; you must enter this in Question 3 in order to gain maximum marks.

### Question 2

Please write down your usual working distance in metres/cm and dioptres (1 mark).

### Question 3

Please correct your retinoscopy for working distance (only) and write down the answer in prescription format using either positive or negative cylinders. (2 marks for calculations)

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**FOR EXAMINERS’ USE ONLY:**

Convert candidate’s retinoscopy to a final refraction using their WD

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Correct “full refraction” i.e. net of your WD

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**FOR ADMINISTRATION USE ONLY**

Marking order: 3
December 17 - Refraction Certificate - London

Centre: &Centre  
Circuit: &Circuit  
Candidate: &CandNo &CandName

Cycloplegic Retinoscopy 4 (Trial Frame Optional) - Left Eye
(15 marks total)

Question 1

Please use a retinoscope to ascertain the retinoscopy values of the left eye. Please record the gross retinoscopy, i.e. without removing the working distance, in the box provided.

You may use any format (positive cylinder, negative cylinder or power cross). If multiple formats or answers are provided you MUST clearly indicate which answer you wish to be marked.

Do not enter your final refraction here; you must enter this in Question 3 in order to gain maximum marks.

Question 2

Please write down your usual working distance in metres/cm and dioptres (1 mark).

Question 3

Please correct your retinoscopy for working distance (only) and write down the answer in prescription format using either positive or negative cylinders. (2 marks for calculations)

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FOR EXAMINERS’ USE ONLY:

Convert candidate's retinoscopy to a final refraction using their WD. Correct “full refraction” i.e. net of WD.

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FOR ADMINISTRATION USE ONLY
Marking order 4
Question 1

You are provided with a pair of spectacles. Measure both spectacle lenses, using either the
tonometer or the lenses provided. Record your findings below, in prescription format.

Near Add. This can be recorded as “Add”

Prism. You must indicate the presence or absence of a prism for each lens and the dioptic
value and correct orientation of any prism present. You may use “0”, “nil” or score a line
through the relevant box(es) if you find no prism.

(15 marks: 10 marks for refraction, 2 marks for reading add and 3 marks for prism)
Non-Cycloplegic Retinoscopy 1 - Right Eye
(15 marks total)

Question 1
Please use a retinoscope to ascertain the retinoscopy values of the right eye. Please record the gross retinoscopy, i.e. without removing the working distance, in the box provided.

You may use any format (positive cylinder, negative cylinder or power cross). If multiple formats or answers are provided you MUST clearly indicate which answer you wish to be marked.

Do not enter your final refraction here; you must enter this in Question 3 in order to gain maximum marks.

Question 2
Please write down your usual working distance in metres/cm and dioptres (1 mark).

Question 3
Please correct your retinoscopy for working distance (only) and write down the answer in prescription format using either positive or negative cylinders. (2 marks for calculations)

FOR EXAMINERS’ USE ONLY:
Convert candidate’s retinoscopy to a final refraction using their WD

Correct “full refraction” i.e. net of WD

FOR ADMINISTRATION USE ONLY
Marking order: 5
Non-Cycloplegic Retinoscopy 2 - Left Eye
(15 marks total)

Question 1
Please use a retinoscope to ascertain the retinoscopy values of the left eye. Please record the gross retinoscopy, i.e. without removing the working distance, in the box provided.

You may use any format (positive cylinder, negative cylinder or power cross). If multiple formats or answers are provided you MUST clearly indicate which answer you wish to be marked.

Do not enter your final refraction here; you must enter this in Question 3 in order to gain maximum marks.

Question 2
Please write down your usual working distance in metres/cm and dioptres (1 mark).

Question 3
Please correct your retinoscopy for working distance (only) and write down the answer in prescription format using either positive or negative cylinders. (2 marks for calculations)

FOR EXAMINERS' USE ONLY:
Convert candidate's retinoscopy to a final refraction using their WD

Correct "full refraction" i.e. net of your WD

FOR ADMINISTRATION USE ONLY
Marking order: 3
### Visual Acuity, Trial Frame Fitting, Interpupillary Distance (IPD) and Back Vertex Distance - (15 marks total)

Candidates may complete the below questions in any order, according to personal preference.

**Question 1**
Write down this patient’s uncorrected distance visual acuity in each eye (2 marks).

**Question 2**
Write down this patient’s distance visual acuity with a pin hole, in each eye (2 marks).

**Question 3**
Write down the interpupillary distance of this patient for distance fixation, in mm (2 marks).

**Question 4**
You are provided with a trial frame, but you may use your own. Please fit the trial frame on the patient in preparation for refraction (3 marks).

**Question 5**
You are provided with a spectacle prescription. Place the appropriate lenses into the trial frame (4 marks).

**Question 6**
Measure the back vertex distance, in mm, for both eyes (2 marks).

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**FOR EXAMINERS’ USE ONLY - Correct Answer**

Unaided VA Right:  
Pin Hole VA Right:  
IPD D:  
BVD:  

FOR ADMINISTRATION USE ONLY
Marking order: 12
Subjective Refraction: Sphere - (15 marks total)

You are provided with a non-cycloplegic retinoscopy for each eye.

Place lenses in the trial frame provided.
Refine the Sphere for each eye.

Do **NOT** modify the Cylinder (Power or Axis)
Do **NOT** progress to duochrome, plus one blur-back, or binocular balance.
Enter your answer in the prescription box below and record Best Visual Acuity achieved.

**Question 1**

Please write your final answer in the prescription boxes below. **Refraction**
(15 marks: 9 marks for technique, 5 marks for refraction and 1 mark for visual acuity).

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<tr>
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<th>Sph</th>
<th>Cyl</th>
<th>Axis</th>
<th>Distance</th>
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**Question 2**

Visual acuity after refining sphere (1 mark)

**VA**

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**For Examiners' Use Only**

**Technique**

Starting "mid-point" refraction both eyes:

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Correct refraction both eyes:

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<th>Sph</th>
<th>Cyl</th>
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FOR ADMINISTRATION USE ONLY

Marking order: 7
**Further Sphere Refinement, Duochrome and Binocular Balance**
(15 marks total)

Use the refraction results that you obtained by refining the sphere, and balance the refractions of the two eyes.
You may use the duochrome, plus one blur back or an alternative binocular balance technique or any combination of these.
Enter your answer in the prescription box below and record Best Visual Acuity achieved.

**Question 1**
Please write your final answer in the prescription boxes below and the best corrected visual acuity for each eye. (15 marks: 9 for technique, 5 for refraction and 1 for visual acuity).

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**Corrected Visual Acuity:**

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**FOR EXAMINERS’ USE ONLY - Correct Refraction and VA Both Eyes:**

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<th>VA</th>
<th>Right</th>
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**FOR ADMINISTRATION USE ONLY**
Marking order: 5.
Near Addition - (15 marks total)

You are provided with a distance prescription for this presbyopic patient’s right and left eye, best corrected visual acuity and their age. Prescribe a suitable near addition.

Question 1

Write down your prescription and near visual acuity.
(9 marks: 6 marks for prescription and 3 marks for near VA).

<table>
<thead>
<tr>
<th>RIGHT</th>
<th>Near Addition</th>
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Near VA

Question 2

Take an appropriate history and explain your findings to the patient.

FOR EXAMINERS’ USE ONLY

Correct Near Add:

Near Visual Acuity:

FOR ADMINISTRATION USE ONLY

Marking order: 11