



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/B.OPTM/SEM-4/BO-403/2012**

**2012**

**CLINICAL REFRACTION-I**

*Time Allotted : 3 Hours*

*Full Marks : 70*

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words  
as far as practicable.*

**GROUP – A**

**( Multiple Choice Type Questions )**

1. Choose the correct alternatives for the following :

10 × 1 = 10

- i) The drug which are responsible for paralysis of the parasympathetic nerve ending, called
  - a) miotic drugs
  - b) anti-cholinesterases
  - c) parasympathomimetic drugs
  - d) parasympatholytic drug.
- ii) Pin hole increases visual acuity by
  - a) reducing size of blur circle
  - b) increasing size of blur circle
  - c) cutting of peripheral rays
  - d) both (a) and (c).



- iii) A dim and unfocused retinal image may form where the diameter of the pin hole disc is
- a) less than 1 mm
  - b) less than 1.5 mm
  - c) less than 2 mm
  - d) less than 1.32 mm.
- iv) At end point of retinoscopy on slight forward movement of the head, the movement of reflex is obtained
- a) with
  - b) against
  - c) no movement
  - d) rapid .
- v) Near point of accommodation is measured by
- a) RAF ruler
  - b) Diploscope
  - c) Cycloplegia
  - d) Fogging method.
- vi) Duochrome test is based on
- a) Spherical aberration
  - b) Coma
  - c) Chromatic aberration
  - d) None of these.
- vii) Following are the method of dynamic retionoscopy *except*
- a) Bell's method
  - b) Nott's method
  - c) Turville infinity method
  - d) MEM method.



viii) When the retinoscopy is done at 50 cm then working lens should be

- a) 1.5 dD
- b) 1.00 dD
- c) 2.00 D
- d) None of these.

ix) Mahindra retinoscopy is done to

- a) children
- b) low vision patients
- c) aphakic patients
- d) none of these.

x) Spherical equivalent of  $-2.00$  Ds/  $-3.00$  Dcl @  $90^\circ$  is

- a)  $-2.50$  Ds
- b)  $-3.50$  Ds
- c)  $-4.00$  Ds
- d)  $-5.00$  Ds.

### GROUP – B

#### ( Short Answer Type Questions )

Write short notes on any *three* of the following.  $3 \times 5 = 15$

2. Nott's and MEM method of Retinoscopy.
3. Astigmatic fan and block
4. Vertex distance and distometer
5. Minimum angle of Resolution.



**GROUP – C**

**( Long Answer Type Questions )**

Answer any *three* of the following.  $3 \times 15 = 45$

6. What is the meaning of 6/60 notation ? Write down the difference between the Snellen's chart and Log MAR chart and discuss the advantages of Baile-Lovie chart over Snellen's chart.  $5 + 5 + 5$
7. What are the steps of monocular and binocular subjective Refraction ? What is the use of fogging and sudden defogging in Subjective Refraction ?  $7\frac{1}{2} + 7\frac{1}{2}$
8. What is Neutralization ? How do you proceed to do neutralization in spherocyl subject in streak retinoscopy ?  $3 + 12$
9. a) What is Duochrome test ? How will you help correct spherical ametropia by Duochrome test ?
- b) What is the basic principle of Duochrome test ?  $10 + 5$
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