



Name :

Roll No. :

Invigilator's Signature :

CS/B.OPTM/SEM-4/BO-403/2013

2013

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 : $10 \times 1 = 10$
 - i) The condition where focus of one principal meridian is at outer limiting membrane of retina is known as
 - a) circle of least confusion
 - b) point of greatest contrast
 - c) strums conoid
 - d) none of these.
 - ii) Aniso-oxyopia refers to
 - a) unequal V.A. in two eyes
 - b) unequal refractive error in two eyes
 - c) unequal accommodation in two eyes
 - d) none of these.



- iii) The spherical equivalent of JCC is
 - a) + 1
 - b) - 1
 - c) 0
 - d) 2.
- iv) Cycloplegic refraction is contraindicated in
 - a) young hyperopic
 - b) esophoria
 - c) glaucoma
 - d) children < 7 yrs.
- v) Straddling method of Retinoscopy is used to
 - a) refine cyl axis
 - b) refine sph. power
 - c) both of these
 - d) none of these.
- vi) The amplitude of accommodation of a person having far point α and near point at 10 cm is
 - a) 10D
 - b) 1D
 - c) 1.5D
 - d) None of these.
- vii) Duochrome test is used in all *except*
 - a) Check cylinder correction
 - b) Check sph. over or under correction
 - c) Binocular balancing
 - d) Determination of presbyopic addition.
- viii) Pinhole increases V.A. by
 - a) reducing the size of blur circle
 - b) increasing the size of blur circle
 - c) cutting of peripheral rays
 - d) both (a) & (c).
- ix) Near point of accommodation is measured by
 - a) RAF ruler
 - b) Diploscope
 - c) Cycloplegia
 - d) Fogging method.
- x) At the end of retinoscopy on slight forward movement of examiner's head, the movement of the reflex is obtained
 - a) with
 - b) against
 - c) nil movement
 - d) rapid movement.



GROUP – B

(Short Answer Type Questions)

Write short notes on any *three* of the following.

3 × 5 = 15

2. Corneal curvature measurement by Keratometry.
3. Subjective refracton.
4. Neutralisation of sphero-cylindrical spectacle lenses.
5. Pinhole.

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. 3 × 15 = 45

6. a) What is clinical refraction ?
b) What is the importance of taking history before refraction ? Write down the steps of monocular subjective refraction. Discuss the use of Bailey-Lovie chart as compared to Snellen chart. 2 + 5 + 3 + 5
7. a) Explain the characteristics of streak reflex which helps you to determine nature of refractive error.
b) What is fogging technique ?
c) What is JCC ? Explain the optical basis of cyl. power determination with JCC. 4 + 4 + 2 + 5

CS/B.OPTM/SEM-4/BO-403/2013



8. a) Explain the optical principle of duochrome test & its utility in monocular subjective refraction.
- b) Briefly describe any *three* methods by which we can determine presbyopic addition. 3 + 5 + 7
9. a) Name the cycloplegic agents used for refraction.
- b) When is cycloplegic refraction indicated ?
- c) What pre-examinations should be done before cycloplegic refraction ?
- d) How much tonus allowance should be reduced during final refraction ? 3 + 4 + 4 + 4
10. a) Describe the Borish delayed technique.
- b) Explain slit refraction.
- c) What is Presbyopia ? 5 + 8 + 2
-