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 × 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.

$3 \times 5 = 15$

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. $3 \times 15 = 45$

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. $4 + 4 + 2 + 5$

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

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