CS/B.OPTM/SEM-4/BO-403/2010

2010

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 any *ten* of the following :
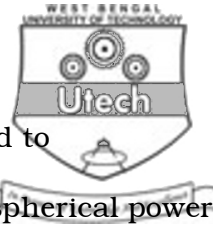
$$10 \times 1 = 10$$

   i)   Visual acuity with pin-hole will not improve in which of the following cases ?

   a)   Macular disease   b)   Ambloypia

   c)   Both (a) and (b)   d)   None of these.

   ii)   In dynamic retinoscopy, accommodation is kept

   a)   active   b)   paralyzed

   c)   unaffected   d)   none of these.

   iii) The number of letters in each row of Log MAR chart is
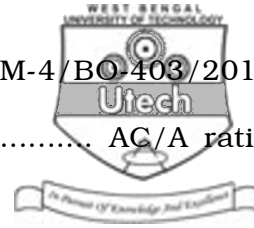
   a)   4   b)   5

   c)   3   d)   1.

4126   [Turn over

iv) Straddling method of Retinoscopy is used to

    a) refine cylinder axis   b) refine spherical power

    c) both (a) and (b)   d) none of these.

v) Duochrome test is used in all the following, *except*

    a) to check cylinder correction

    b) to check spherical over/under-correction

    c) binocular balancing

    d) determine presbyopic addition.

vi) Pin-hole increases visual acuity by

    a) reducing size of blur circle

    b) increasing size of blur circle

    c) cutting off peripheral rays

    d) both (a) and (c).

vii) An uncorrected hypermetrope and a chronically under corrected myope will both develop presbyopic symptoms .... than an emmetropic particle.

    a) early

    b) late

    c) approximately double

    d) none of these.

viii) Majority of myopes have .... AC/A ratio as compared to emmetrops.

    a)   high b)   low

    c)   nearly equal   d)   none of these.

ix) A high AC/A ratio may cause .... convergence during accommodation on a near object.

    a)   excessive   b)   minimal

    c)   nil   d)   none of these.

x) Measurement of near point of accommodation (NPA) is done using

    a)   Diploscope   b)   RAF rule

    c)   Minus lenses   d)   (a) and (b)

    e)   (b) and (c)   f)   (a) and (c).

xi) At end point of retinoscopy, on slight forward movement of the head, the examiner should observe .... movement of reflex.

    a)   with b)   against

    c)   no   d)   rapid.
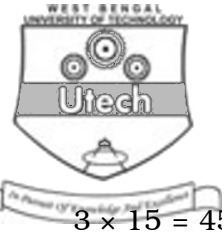
GROUP – B
(Short Answer Type Questions)

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

$$3 \times 5 = 15$$

2. RAF rule

3. Pin-hole

4. Nott's and MEM method of dynamic retinoscopy.

5. Borish delayed spherical end point.

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GROUP – C

(Long Answer Type Questions)

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

6. a) What is IPD ? Why is it important to measure IPD ?

   b) Describe the procedure of measuring distance and near IPD using light reflex method.　　5 + 10

7. Describe the two methods of 'assessment of amplitude of accommodation' :

   a) By measuring NPA

   b) By using minus lenses.　　$7\frac{1}{2} + 7\frac{1}{2}$

8. Explain how you will proceed to determine the cylindrical power in a patient having astigmatism, using —

   a) two spheres

   b) sphere and a cylindrical lens

   c) using two cylinders (cylindrical lenses).　　5 + 5 + 5

9. a) Explain the different streak reflex characteristics that can help you to determine the cylinder axis in an astigmatic patient.

   b) How will you proceed to confirm the axis of the cylinder ?　　10 + 5

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