CS/B.OPTM/SEM-4/BO-402/2013

2013

OPHTHALMIC & OPTICAL INSTRUMENTATION & PROCEDURE – II

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 :

                                                    $10 \times 1 = 10$

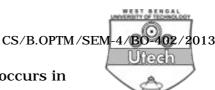   i)   Applanation tonometry is based on

        a)   Pascal's Law   b)   Imbert-Ficks Law

        c)   Hering's Law   d)   None of these.

    ii) Absence of green sensitivity of retina is called

        a)   Deuteranopia   b)   Protanopia

        c)   Tritanopia   d)   none of these.

iii) Errors may occur during applanation tonometry due to

    a) irregular Cornea

    b) excess fluorescein

    c) faulty calibration of instrument

    d) scleral rigidity.

iv) In Humphrey autoperimetry the unit of illumination is

    a) apostilibs

    b) candles

    c) decibels

    d) lumen.

v) All are true of Schiotz tonometry *except*

    a) indentation of cornea

    b) normogram necessary

    c) topical anaesthesia needed

    d) more reliable than applanation tonometry.

vi) Eximer laser is used for

    a) PRK

    b) Capsultomy

    c) Retinal photocoagulation

    d) all of these

    e) none of these.

vii) Hyperfluorescence of FFA occurs in

    a) leakage from blood vessels

    b) loss of pigment

    c) fluid accumulation

    d) all of these

    e) none of these.

viii) B-scan is used to diagnose

    a) axial length   b) retinal detachment

    c) proptosis   d) all of these.

ix) Ophthalmic ultrasound uses a frequency of

    a) 20 kHz   b) 100 kHz

    c) 50 kHz   d) 30 kHz.

x) Laser has the following properties *except*

    a) it is monochromatic   b) collimated

    c) non-polarised   d) coherent.

GROUP – B

(Short Answer Type Questions)

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

3 × 5 = 15

2. Yag laser use in ophthalmology.

3. 'Superior arcuate defect' found during perimetry in a glaucoma patient.

4133   3   [Turn over

4. Use of *A*-scan in 10 L power calculation.

5. Reliability parameters in a Humphrey visual field report print-out.

GROUP – C

(Long Answer Type Questions)

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

6. a) Mention the types of contrast sensitivity in brief.

   b) Explain the use of Arden gratings.

   c) Discuss the neural mechanism of contrast sensitivity.

                  3 + 5 + 7

7. a) Mention the differences between static perimetry and kinetic perimetry.

   b) Draw and describe 3 important glaucomatous field defects commonly seen in an HVF report.   6 + 9

8. a) Discuss 'Lasers in ophthalmology'.

   b) Discuss the possible sources of 'error' in perimetry report.   10 + 5

9. a) What is Pachymetry ? What are the important methods of Pachymetry ? Write in detail, about the importance of Pachymetry (CCT) in relation to glaucoma.

   b) Write on the devices for colour vision testing.

                  (2 + 4 + 3) + 6