



Name :

Roll No. :

Invigilator's Signature :

CS/B.OPTM/SEM-4/BO-402/2011

2011

**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/Fill in the blank for any *ten* of the following : 10 × 1 = 10
- i) Blue filter is used in
 - a) Schiottz tonometry
 - b) non-contact tonometry
 - c) applanation tonometry
 - d) indentation tonometry.
 - ii) Perimetry is useful in
 - a) retinitis pigmentosa b) optic nerve disease
 - c) glaucoma d) all of these.
 - iii) B-scan is used to diagnose
 - a) axial length b) retinal detachment
 - c) vitreous detachment d) all of these.



ix) If faculty to perceive one of the three primary colours is completely absent, the condition is called

(Fill in the blank)

x) HRR (Hardy Rand Rittler) test is

- a) contrast sensitivity test
- b) visual acuity test
- c) pseudo-isochromatic chart test
- d) stereopsis test.

xi) All are included in reliability indices (in a perimetry report) *except*

- a) false positives
- b) false negatives
- c) fixation losses
- d) mean deviation.

GROUP – B

(Short Answer Type Questions)

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

3 × 5 = 15

2. Non-contact tonometers.
3. “Hypofluorescence” on F.F.A.
4. “Reliability parameters”, (Reliability Indices) in a standard 24-2 H.V.F. (Humphrey Visual Field) test report.
5. Different phases of a standard ‘FFA’.



GROUP – C

(Long Answer Type Questions)

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

6. a) Discuss the basic differences between Manual kinetic perimetry (Goldmann perimeter) and Automated static perimetry (Humphrey perimeter).
- b) Discuss 'Global Indices' in a standard Humphrey perimetry report (discuss MD, PSD, STF, CPSD).
- c) Write a note on Typical glaucomatous field defects. $5 + 5 + 5$
7. a) Discuss the fixed area (variable force) Goldmann Applanation Tonometer.
- b) Explain the role of 'scleral rigidity' and the role of 'Friednwald nomogram'. $7 \frac{1}{2} + 7 \frac{1}{2}$
8. a) Name any *four* commonly used orthoptic instruments.
- b) "A synaptophore can be used for both diagnostic and therapeutic purposes." Explain.
- c) Explain Young-Helmholtz theory of colour vision. $2 + 8 + 5$
9. a) Discuss the basic principles of ocular ultrasonography.
- b) How is A-scan Biometry done ? $5 + 10$