	<u>Utech</u>
Name:	
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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: $10 \times 1 = 10$
 - i) Blue filter is used in
 - a) Schiotz 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.

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iv)	In H	umphrey Autoperimete	r the	unit of illumination is	
	a)	Apostilbs	b)	candles	
	c)	decibels	d)	lumen.	
v)	Blin	d spot in an example of			
	a)	positive scotoma	b)	pathological scotoma	
	c)	physiological scotoma	d)	none of these.	
vi)	The	excitation peak of fluor	escei	n dye is	
	a)	360 nm	b)	494 nm	
	c)	594 mn	d)	720 nm.	
vii)	Pelli	-Robson contrast sensi	tivity	chart consists of letters	
	which subtend an angle of at a distance of				
	one metre.				
	a)	1°	b)	3°	
	c)	5°	d)	15°.	
viii)	Nun	nber of points tested	on	a 24 – 2 HVF report	
	is				
	a)	36	b)	54	
	c)	72	d)	15.	
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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.

 $3 \times 5 = 15$

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

GROUP - C



(Long Answer Type Questions)

Answer any three of the following.

- 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

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