	<u>Unean</u>
Name :	A
Roll No.:	An Alexande O'S security and Excellent
Invigilator's Signature :	

CS/B.OPTM/SEM-4/BO-403/2011

2011 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: $10 \times 1 = 10$
 - i) Fogging means making the eye
 - a) artificially myopic
-) artificially astigmatic
- c) artificially hyperopic
- d) none of these.
- ii) Spherical equivalent of 1.00 D.sph /- 3.00 D.cyl@90

is

- a) -2.50 D.sph
- b) + 2.50 D.sph
- c) -4.00 D.sph
- d) -2.00 D.sph
- iii) On the log MAR chart the 6/60 has a log MAR value of
 - a) 1.0

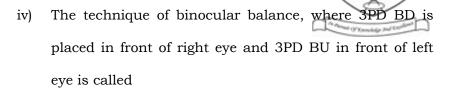
b) 0.8

c) 0 · 7

d) none of these.

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- a) dissociated duochrome balance
- b) prism dissociation
- c) Turville infinity balance
- d) none of these.
- v) Equivalent of visual acuity 6/24 is
 - a) 20/40

- b) 20/80
- c) 20/100
- d) 20/200.
- vi) In compound hypermetropic astigmatism
 - a) both foci are in front of retina
 - b) both foci are behind the retina
 - c) one focus is in front of retina and another behind
 - d) one focus is on the retina and the other is behind.
- vii) Premature presbyopia occurs in all except
 - a) uncorrected hypermetropia
 - b) premature hardening of crystalline lens

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- c) weakening of ciliary muscles
- d) uncorrected myopia.

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- viii) Cycloplegic eyedrops are indicated in all except
 - a) pediatric patients
 - b) young hyperopes
 - c) glaucoma patients
 - d) patients having spasm of accommodation.
- ix) The principle of stenopaic slit is based on
 - a) astigmatic fan
- b) pinole phenomenon
- c) Strum's conoid
- d) none of these.
- x) During verification of a spherical lens the object focused at a distance seem to move in direction in case of a convex tens.
 - a) same direction
- b) opposite direction
- c) both directions
- d) no direction.

GROUP - B

(Short Answer Type Questions)

Write short notes on any three of the following.

 $3 \times 5 = 15$

- 2. a) Strum's conoid
 - b) Scheiner Principle
 - c) Vertex power measurement
 - d) Spectacle frame choice

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GROUP - C

(Long Answer Type Questions)

Answer any three of the following.

 $3 \times 15 = 45$

- 3. a) How will you measure I.P.D.? In what cases is monocular P.D. measurement needed?
 - b) Discuss "Objective Refraction".

 $7\frac{1}{2} + 7\frac{1}{2}$

- 4. a) What is Presbyopia?
 - b) How can you measure "amplitude of accommodation"?
 - c) Describe the construction of Snellern's chart. 5 + 5 + 5
- 5. a) Explain "Automated Objective Refraction".
 - b) There are various typs of auto-refractors, each based on a different principle. Discuss any 2 such principles and the auto-refractors made, based on these principles.

$$5 + 5 + 5$$

- a) Discuss the role of J.C.C. (Jackson crossed cylinder)
 during refraction. Explain its use on the basis of
 principle involved.
 - b) Discuss the Javal Schiotz Principle and Bausch and Lomb Principle based keratometers. Bring out the basic difference between the two types of keratometers. 5 + 10

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