



Name : .....  
Roll No. : .....  
Invigilator's Signature : .....

**CS/B.OPTM/SEM-3/BO-301/2011-12  
2011**

**VISUAL OPTICS ( OPTICS – 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 any *ten* of the following :

10 × 1 = 10

- i) Airy disc is observed in
  - a) Chromatic aberration
  - b) Diffraction of light
  - c) Spherical aberration
  - d) Distortion.
  
- ii) In case of keratometry, we use ..... Purkinje image.
  - a) Ist
  - b) IInd
  - c) IIIrd
  - d) IVth.

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**GROUP – C**

**( Long Answer Type Questions )**

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

6. Describe any one theory regarding mechanism of accommodation. Define amplitude of accommodation. How will you measure the amplitude of accommodation ?

5 + 3 + 7

7. Define and classify astigmatism. Describe clinical features of degenerative myopia.

8 + 7

8. Describe the aetiology of hypermetropia. A patient with visual acuity of 6/36 is improved by addition of + 4.00 D and attained 6/6. Further addition of + 1.00 D does not alter the visual acuity but further addition causes deterioration of visual acuity. After cycloplegia he again accepts another + 1.00. Calculate the absolute, facultative, manifest, latent & total Hyperopia of that patient.

5 ∞ 3

9. a) Discuss the various theories of accommodation briefly.  
b) What is amplitude of accommodation ? How is it measured ?

9 + 6

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