

**Q.P.Code 203013**

**Reg. No.:.....**

Second Year B.Sc Optometry Degree Supplementary Examinations - April 2013

**Visual Optics**

**Time: 3 hrs**

**Max marks : 80**

- Answer all questions
- Draw diagram wherever necessary

**Essays**

**(2x15=30)**

1. Define myopia. What are the types of myopia and describe the myopic correction with spectacle lens.
2. Define retinoscopy and describe the optics of the stages of retinoscopy.

**Short notes**

**(5x5=25)**

3. Optics of prism and application of prisms in ophthalmology.
4. Pinhole
5. Jacksons cross cylinder
6. Anisometropia
7. AC/A ratio

**Answer briefly**

**(10x2 = 20)**

8. Fogging
9. Principle of Bausch and Lomb keratometer
10. With the rule astigmatism
11. Fresnel prism
12. Near point of accommodation
13. The cross cylinder form of a prescription is as follows. +3.0 D cyl x 90 and +1.5 D cyl x 180. Convert the prescription to minus and plus sphero cylindrical form.
14. Calculate the amplitude of accommodation required to see an object at 10 cm for +4.0 D hyperopia.
15. Depth of focus
16. Angle kappa
17. Dynamic retinoscopy

**One word answer**

**(5x1 = 5)**

18. Corneal curvature is measured using \_\_\_\_\_
19. The Scheiner principle is used in \_\_\_\_\_
20. The angle between the optical axis and the visual axis is called \_\_\_\_\_
21. Cycloplegic effect of homatropine lasts for \_\_\_\_\_ days.
22. The far point of a non accommodated hypermetropic eye is located \_\_\_\_\_ the retina.