Second Year B.Sc Optometry Degree Examinations - October 2014

Visual Optics

Time : 3 hrs   **Max marks : 80**

- **Answer all questions**
- **Draw diagram wherever necessary**

Essays   **(2x15=30)**

1. Define retinoscopy and explain the pre-requisites for retinoscopy .

2. Define astigmatism. Discuss the etiology, optical conditions, types and treatment of astigmatism.

Short notes   **(5x5=25)**

3. Toric transposition

4. Difficulties in retinoscopy

5. What is a cross cylinder and mention its uses

6. Back vertex distance and power

7. Principles and uses of lensometer

Answer briefly   **(10x2 = 20)**

8. Anisometropia

9. High index lenses

10. Dynamic retinoscopy

11. Aspheric lenses

12. Image size in ametropia

13. Donder's reduced eye

14. Chromatic aberration

15. Stenopic slit test

16. Depth of field

17. Find out the resultant power of this combination.   (+2 D.cyl 90) + (+4 D cyl 180)

One word answer   **(5x1 = 5)**

18. Type of refractive error in newborns

19. The optometer principle is used in --------------

20. ---------------- is a drug which has only mydriatic effect without cycloplegia

21. Segment top of spectacle lens should be at the level of -------------------

22. ---------------------- is based on the fact that the anterior surface of the cornea acts as a convex mirror and the size of the image formed varies with its curvature

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