Second Year B.Sc Optometry Degree Supplementary Examinations
October 2021

Optometric Optics

(2016 Scheme)

Time: 2 hours   **Max. Marks: 40**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essay   **(10)**

1. Differentiate on the types and characteristics of glass, plastic, polycarbonate and trivex ophthalmic lenses.

Short Notes   **(3x5=15)**

2. Define the terms with respect to prism
   - Thickness difference   •   Centrad   •   Prism diopter
   - Decentration   •   Pull of a prism
3. Differentiate between individual batch method and continuous flow process during glass manufacturing.
4. Brief on the steps involved in surfacing a glass lens.

Answer Briefly   **(5x2=10)**

5. Define ANSI Z87 safety eye wear standard
6. Chromatic aberration. How is abbe value useful in determine the chromatic aberration in a lens.
7. Transpose the following prescription to sphero cylindrical form and show it in the optic cross
   -0.75DC*20/+0.75DC*110.
8. Pantoscopic tilt. Mention two uses of it.
9. Differentiate Symmetric and Asymmetric design in progressive addition lenses

Give Precise Answer   **(5x1=5)**

10. Find the prismatic effect at point 6mm below the optic center of +4.00DS lens.
11. Convert 5° 17' into prism diopters
12. What is a periscopic lens
13. What is the refractive index of poly methyl methacrylate.
14. Define aberration.

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