

**Second Year B.Sc Optometry Degree Regular/Supplementary
Examinations February 2022**

Optometric Optics

(2014 scheme)

Time: 2 hrs

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. Define manufacturing process and explain in detail about steps involved in manufacturing process

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

2. Principles of anti-reflection coating (ARC) with neat diagram
3. Polycarbonate lenses.
4. Draw a neat labeled diagram of Progressive Addition Lenses with its micro etchings and mention their importance. How do we find the power for distance in a Progressive Addition Lenses

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

5. Define Spherical aberration and how can you minimize the Spherical aberration
6. What is a reflecting filter. How is it different from absorptive filter.
7. Derive the relation between optic axis and pantoscopic tilt.
8. List down the advantages of aspheric lenses
9. What will be the back vertex powers of the lens which has surface powers +8.00D and -19.00D and central thickness of the lens being 8mm

Give precise answers **(5x1=5)**

10. State Prentice's rule.
11. Spectacle tool used for making concave surfaces
12. Mention two applications of Fresnel prism
13. Divide 8 Δ Base in (BI) in front of both eyes
14. Parts of frame front