

**B.Sc. (Hons.) IN OPTOMETRY AND
OPHTHALMIC TECHNIQUES (BSCHOT)**

Term-End Examination

June, 2012

BOS-008 : DISPENSING OPTICS

Time : 3 hours

Maximum Marks : 70

PART - A

Answer *any four* questions. Each carries
10 marks. 4x10=40

1. Explain the following terms :
 - (a) Surface power
 - (b) Approximate power
 - (c) Vertex power
 - (d) Effective power

2. Define Lensometry. Explain in detail about its principle, steps and sources of error.

3. Describe the steps involved in lens surfacing.

4. Explain the different parts of a frame with suitable diagrams.

5. Explain in detail the different types of bifocals with the help of diagrams.

6. (a) Describe the rules of simple transposition and transpose the following prescription into alternate sph-cyl form
 $+3.00 / +1.00 \times 90^\circ$.

(b) Define Toric surface

Given a prescription = $+1.00 / +4.00 \times 180$

Base curve = -6.00 D

Calculate the final toric prescription.

PART - B

7. Write short notes on *any six* of the following. Each carries 5 marks. 6x5=30

- (a) Prentice Rule
 - (b) CR-39 lens material
 - (c) Boxing system
 - (d) Frame selection for children
 - (e) Hi-index lenses
 - (f) IPD measurement
 - (g) Anti-Reflection coatings
 - (h) Hand neutralization of lenses
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