

QP Code: 227013

Reg. No:.....

**Second Year B.Sc Optometry Degree Supplementary Examinations**

**May 2023**

**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. Write in details about different frame materials, their advantages and disadvantages. Write about special purpose frames for sports, kids.

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

2. Transpose the prescription  $-9.00DS/+3.00 DC \times 180$  into toric form with a  $+1.00D$  base curve
3. Write a detailed note on various tints used in ophthalmic lenses and its uses.
4. Progressive addition lenses, its types and its advantages and disadvantages.

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

5. Write about the thickness-refractive index relationship.
6. Explain polarized lenses.
7. What is jump effect. What is the formula to calculate the same.
8. What are cord and striae.
9. Lenticular lenses.

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

10. Calculate the prismatic effect exerted at a point 5mm above the geometric center of a lens of power of  $+3.00D$ .
11. Type of frame to avoid ring scotoma.
12. Name the material using for antireflection coating.
13. Write the sag formula.
14. Name the optometric instrument working on principle of spherometer.

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