



**Avinashilingam Institute for Home Science and Higher Education for women  
Coimbatore -641043**

**Continuous Internal Assessment II APRIL-2025**

**IV Semester**

**Class: II UG**

**Branch : Optometry**

**Time: 2 Hours**

**Max Marks: 60**

**22BOPC19 Optometric Optics - II**

**Course Outcomes:**

CO1: To gain knowledge on multifocal lenses.

CO2: To understand effects, units, base – apex notation, prismatic effect of Ophthalmic prisms.

CO3: To acquire knowledge on special lenses and lens enhancement coatings.

CO4: To understand high index lenses and aberration of ophthalmic lenses in detail.

CO5: To understand the spectacle frame – manufacturing and their materials

**Part A**

**6 × 1= 6**

**Choose the Correct Answer**

1. Polarized lenses are designed to reduce: **CO3K1**  
a) Color distortion b) Glare from reflected light c) UV radiation d) Lens scratches
2. Aberrations in ophthalmic lenses can cause: **CO4K1**  
a) Improved color perception b) Distorted vision c) Reduced glare d) Increased magnification
3. High-index lenses achieve a thinner profile by: **CO4K2**  
a) Using less material b) Having a higher refractive index c) Using a different lens design  
d) Applying a special coating
4. Magnification in high plus lenses can lead to: **CO4K1**  
a) A smaller field of view b) A larger field of view c) Reduced glare d) Enhanced color perception
5. Optyl material is: a)Thermoplastic b)Thermoelastic c)Both a& b d) None of these **CO5K1**
6. Which frame material is known for being extremely light and strong? **CO5K2**  
a) Acetate b) Metal c) Titanium d) Nylon

**Part B**

**3× 6= 18**

**Answer ALL the questions**

**Each answer should not exceed 400 words or two pages**

- 7.A.Explain Antireflection coating& its pros & cons. **CO3K2**
- 7.B.Explain UV coating & Hydrophobic coating. **CO3K2**
- 8.A.Define High index lenses & mention its Pros &cons. **CO4K1**
- 8.B.Describe the methods Manufacturing of lenses. **CO5K1**
- 9.A.Describe Scratch resistance coating and its uses. **CO3K1**
- 9.B. Explain special purpose frames for sports. **CO5K2**

**Part C**

**3× 12= 36**

**Answer ALL the questions**

**Each answer should not exceed 400 words or two pages**

- 10.A.Explain Aberrations in Ophthalmic lenses and Hi-index lenses. **CO4K2**
- 10.B.Describe Special purpose frames. **CO5K1**
11. A. Explain Lenses for High Plus wearers. **CO4K2**
- 11.B.Explain Lenses for High minus wearers. **CO4K2**
- 12.A.Describe Plastic Frame and Metal materials. **CO5K1**
- 12.B.Describe Parts of frames such as Frame Fronts, bridge area, temples and endpiece constructions. **CO5K1**