# Contents


**1. Introduction to Dispensing Optics** **1**

- Light *2*
- Ophthalmic Lenses *2*
- Interactions of Light with Ophthalmic Lenses *5*
- Sign Conventions *6*
- Power Specification of Ophthalmic Lenses *6*
- Systems of Optical Dispensing *10*
- Applied Anthropometry and Morphology *15*
- Psychology of Dispensing *19*
- Multiple Choice Questions *22*

**2. Frame Types and Frame Materials** **23**

- Frame Types *23*
- Frame Materials *25*
- Metals used for Plating Metal Frames *30*
- Multiple Choice Questions *31*

**3. Parts of the Spectacle Frame** **32**

- Frame Fronts *32*
- Temples *35*
- Multiple Choice Questions *38*

**4. Frame Selection** **39**

- Frame Size *40*
- Frame Shape *42*
- Bridge of the Frame *42*
- Frame Color *44*
- Frame Design Ergonomics *44*
- Lens Prescription *46*
- Facial Shapes *47*
- Fashion, Perception and Brands *48*
- Multiple Choice Questions *49*

**5. Lens Selection** **51**

- Factors that Affect Ideal Lens Selection *52*
- Making an Ideal Lens Selection *54*
- Functional Classification of Lenses *60*
- Dispensing High-index Lenses *61*
- Dispensing Tinted Lenses *63*
- Dispensing Lenses for Wrap Sports Frames *65*

- Dispensing Antireflection Coated Lenses *67*
- Dispensing Aspheric Lenses *68*
- Multiple Choice Questions *71*

**6. Pupillary Distance Measurements and Optical Center of Lens 72**

- Digital Pupillometer *75*
- Optician's Ruler *76*
- Optical Center Placement *79*
- Multiple Choice Questions *81*

**7. Multifocal Segment Height Measurements 82**

- Vertical Position of Near Segment *82*
- Horizontal Position of Near Segment *83*
- Sequential Steps to Measure the Segment Height *83*
- Verifying the Position of Segment Height *85*
- Dispensing Segmented Multifocal Lenses *86*
- Multiple Choice Questions *89*

**8. Dispensing in Myopia 90**

- Challenges in Dispensing *90*
- Dispensing in Myopic Astigmatism *94*
- Factors that Influence Adaptation *95*
- Multiple Choice Questions *96*

**9. Dispensing in Hypermetropia 97**

- Challenges in Dispensing *97*
- Dispensing in Hypermetropic Astigmatism *99*
- Factors that Influence Adaptation *100*
- Multiple Choice Questions *100*

**10. Dispensing in Presbyopia 102**

- Lens Options *102*
- Challenges of Presbyopic Dispensing *104*
- Multiple Choice Questions *111*

**11. Progressive Addition Lens Dispensing 112**

- Progressive Addition Lens Reference Markings *113*
- Ideal Frame Selection *115*
- Corridor Length Selection *117*
- Fitting Cross Height *120*
- Dispensing Customized Progressive Addition Lenses *126*
- Demonstration of Use of Progressive Addition Lenses *127*
- Multiple Choice Questions *131*

**12. Prism Dispensing 133**

- Prism by Decentration *135*
- Worked Prisms *136*
- Compound and Resolving Prisms *137*
- Challenges Associated with Prism Dispensing *139*
- Multiple Choice Questions *139*

**13. Dispensing Prescription Sunglasses 141**

- Prevention *141*
- Protection *142*
- Enhancement *142*
- Tints for Sunglasses *143*
- Lens Material for Sunglasses *144*
- Lens Design for Sunglasses *144*
- Antireflection Coating for Sunglasses *145*
- Multiple Choice Questions *146*

**14. Occupational Dispensing of Spectacle 147**

- Three Simple Rules *150*
- Occupational Specific Gadgets *151*
- Multiple Choice Questions *154*

**15. Pediatric Optical Dispensing 155**

- Developmental Stages of a Child *155*
- Development of Visual System *156*
- Development of Facial Anatomy *156*
- Selecting a Suitable Frame *157*
- Selecting a Suitable Lens *159*
- Dispensing Measurements *159*
- Spectacle Frame Fitting *159*
- Parental Influence *160*
- Multiple Choice Questions *161*

**16. Digital Dispensing Systems and Lens Customization 162**

- Essilor's Visioffice *163*
- Nikon's IPad *164*
- Lens Customization *164*
- Multiple Choice Questions *168*

**17. Lens Ordering and Verifications 169**

- Lens Ordering *169*
- Lens Verifications *172*
- Multiple Choice Questions *173*

**18. Lens Insertion** **175**

- Lens Insertion into Zyl Frames *175*
- Lens Insertion into Supra Frames *177*
- Lens Insertion into Rimless Frames *178*
- Lens Insertion into Full Rim Metal Frames *179*
- Multiple Choice Questions *181*

**19. Fitting Spectacle Frame** **183**

- Pantoscopic Angle *183*
- Frontal Bow *186*
- Temple Width *188*
- Temple Bend *193*
- Nose Pads Fitting Adjustments *195*
- Standard Alignment *197*
- Spectacle Frame Fitting Assessment *199*
- Multiple Choice Questions *201*

**20. Non-adaptation to Spectacles** **203**

- Causes for Non-adaptation to Spectacle *204*
- Refraction *204*
- Past Habits *207*
- Frame Fitting *208*
- Dispensing *209*
- Communication *212*
- Physiological *212*
- Psychological *212*
- Environment *213*
- Limitations of Optics *213*
- Principles of Handling Patients for Intolerance to Spectacle *214*
- General Symptoms and Signs of Non-adaptation to Spectacle *215*
- Symptoms and Signs of Non-adaptation by a Presbyopic Patient *216*
- Step-by-step Procedure for Handling Patient Complaining of Non-adaptation *218*
- Patient Management *220*
- Multiple Choice Questions *221*

**21. Case Studies** **223**

- Tips to Handle Patient's Complaints *232*

*Bibliography* *235*

*Index* *237*