

2023

AUGUST

Optics and Refraction

Full Marks - 30

Time - 3 Hours

*The figures in the margin indicate full marks for the questions**Answer all questions*

- 1) Fill in the blanks: [1X5=5]
- _____ are more visible in ARC coated lenses than with uncoated lenses.
 - Vertex distance is measured using _____.
 - Adding ferrous oxide to the glass melt will give _____ colour to the lens.
 - _____ bifocal has no jump effect.
 - The thick portion of prism is called _____.
- 2) State TRUE or FALSE: [1X5=5]
- Plastic lenses should be dyed before AR coated.
 - Grey tint recommended for bright, hazy days.
 - The higher contact angle of a water drop on a lens surface indicates poor hydrophobicity.
 - Slab-off is done to neutralize unwanted horizontal prismatic effect.
 - For a square face shape wayfarer design frame is suitable
- 3) Write short note on (any SIX): [5X6=30]
- Different methods of measuring IPD.
 - Selecting frames and lenses for paediatric patient.
 - Different edge forms.
 - Anti reflection coating.
 - Tinted lenses.
 - "Jack in the Box" phenomenon?
 - Features of high index lenses.
- 4) Answer any four of the following: [10X4=40]
- Write about tinted lens. Explain the various methods of tinting.
 - Explain various steps of dispensing progressive addition lenses.
 - Write briefly on types of frame materials.
 - Write about how will you record and order frames and lenses.
 - Explain about different types of lenticular lenses.

(SS/BOP1-II/OPRE/08-23)

Turn over