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**MASTER OF OPTOMETRY**  
**F. Y. M. Optom. : SUMMER – 2022**  
**SUBJECT : APPLIED OPTICS**

Day : Monday

Time : 10:00 AM-12:00 PM

Date : 21-11-2022

**S-802-2022**

Max. Marks : 50

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**N.B.**

- 1) Answer **Section A** and **Section B** on **SEPARATE** answer sheets.
  - 2) **Section A** is of objective questions for total **20 marks**.
  - 3) **Section B** is of short questions for total **30 marks**.
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**SECTION – A**

**Q.1** Fill in the blanks : **(20)**

- i) Accommodative infacility can be treated by \_\_\_\_\_.
- ii) The technique of retinoscopy used in patients with media opacity is \_\_\_\_\_.
- iii) Night myopia is caused by \_\_\_\_\_.
- iv) OKN is \_\_\_\_\_ method of measurement of visual acuity.
- v) In schematic eye refractive index of cornea is \_\_\_\_\_.
- vi) Use of Pilocarpine causes a \_\_\_\_\_ shift in refraction.
- vii) One foot candle is equal to \_\_\_\_\_ lumens.
- viii) The duochrome test depends upon \_\_\_\_\_ aberration.
- ix) Kestenbaum's formula for calculating near add is \_\_\_\_\_.
- x) Antireflection coating removes the reflected light by \_\_\_\_\_ interference.
- xi) Lag of accommodation is defined as \_\_\_\_\_.
- xii) Shape of target shown during JCC should be \_\_\_\_\_.
- xiii) High uncorrected astigmatism can lead to \_\_\_\_\_ type of amblyopia.
- xiv) \_\_\_\_\_ technique is used to refine axis of astigmatism by objective method.
- xv) If refractive index of vitreous humor increases, refractive error shifts towards \_\_\_\_\_.
- xvi) One disadvantage of Fresnel prism compared to a ground in prism is \_\_\_\_\_.
- xvii) The power of prism is determined by its \_\_\_\_\_.
- xviii) \_\_\_\_\_ plots can determine the success of a PAL design.
- xix) In patients with severe peripheral field loss, \_\_\_\_\_ devices can be used to enhance the visual field.
- xx) The position of circle of least confusion of a sphero-cylindrical lens when incident light is parallel is given by \_\_\_\_\_.

**PTO**

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**SECTION B**

**Q.2** Answer **ANY SIX** of the following

**(30)**

- i)** Write a note on chemical toughening and drop ball test.
- ii)** What are the problems that can be faced by a person wearing PALS for the first time and how will you manage them as an optometrist?
- iii)** Write about various tints and their specific uses and features.
- iv)** Write about all the latest PAL designs.
- v)** What is contrast sensitivity? Write about two conditions where it is affected. Mention about three contrast sensitivity charts and write about them in brief.
- vi)** What is binocular balancing? Why is it done? Name five methods to do binocular balancing and explain one of them in brief.
- vii)** Write a note on ARC on ophthalmic lens surface.

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