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**MASTER OF OPTOMETRY**  
**S. Y. M. Optom. : 'SUMMER – 2022**  
**SUBJECT : DISPENSING OPTICS & LOW VISION**

Day : Wednesday

Time : 10:00 AM-12:00 PM

Date : 23-11-2022

**S-809-2022**

Max. Marks : 50

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**N.B.**

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

**Q.1 A) Fill in the blanks: (10)**

- 1) The plastic material which undergoes ir-reversible changes on heating is called as \_\_\_\_\_.
- 2) The most common end piece construction in plastic frames is \_\_\_\_\_.
- 3) The wave length of UVB ranges from \_\_\_\_\_.
- 4) Fresnel's equation is \_\_\_\_\_.
- 5) Exit pupil is calculated by \_\_\_\_\_ formula.
- 6) Kestenbaum's formula is \_\_\_\_\_.
- 7) \_\_\_\_\_ prisms are used to re-invert the image in slit lamp.
- 8) The magnification of a telescope is determined by \_\_\_\_\_.
- 9) For patients who have fields less than  $5^0$ , the recommended size of the field –expanding channel lens is \_\_\_\_\_ mm.
- 10) \_\_\_\_\_ number of CPF filter is designed for Retinitis Pigmentosa patients.

**B) State True or False : (10)**

- 1) The largest category of non- optical devices is probably writing devices.
- 2) When a prism is recommended for patient with a bitemporal hemianopia, the base of the prism is placed towards blind area.
- 3) Edge profile contributes to the shape factor of an ophthalmic lens.
- 4) Focimeter measures back vertex power of ophthalmic lens.
- 5) In the boxing system, the effective diameter is the diagonal of the box.
- 6) Light pink tint is blue absorbing.
- 7) A distometer is used to measure the PD.
- 8) The best way to heat nylon frames is by using forced hot air.
- 9) Field expanders are used in patients with peripheral field loss.
- 10) Effectivity of plus lenses increases when it is shifted from corneal plane to spectacle plane.

P.T.O.

**SECTION – B**

**Q.2** Answer any **SIX** of the following: **(30)**

- 1) Explain the significance of history taking in low vision patient.
- 2) What are the different methods to verify the telescope? Calculate exit pupil diameter if power of telescope is 3 x 18.
- 3) What is toughening and in what cases would you recommend it?
- 4) What are 'Best form' lenses?
- 5) Calculate the prism thickness difference if  $P = 4\Delta$ , Diameter = 55 mm, RI = 1.67.
- 6) What are the different absorptive lenses? Explain any one of them.
- 7) List at least 3 optical and non-optical low vision devices with its advantages and dis-advantages.

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