

Invigilator's Signature :

CS/B.OPTM/SEM-4/BO-405/2013 2013

OPHTHALMIC LENS AND DISPENSING OPTIC

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable.

GROUP – A

(Multiple Choice Type Questions)

1. A. Choose the correct answers for the following : $9 \times 1 = 9$

i) Among glass lens materials the base material is

- a) CR 39 b) Crown glass
- c) Plastic d) None of these.

ii) Tinting of lenses decreases the

- a) transmittance b) reflection
- c) scratch resistance d) all of these.

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- iii) Which of the following should be avoided when fitting the high minus wearer ?
 - a) Squared off corners
 - b) High lite lens
 - c) Thick rim
 - d) An antireflective coating
- iv) Polycarbonate is used in most industrial protective eyewear because of
 - a) light weight b) high impact resistance
 - c) flexibility d) all of these
 - e) none of these.
- v) Pin cushion effect is the result of
 - a) decreased magnification towards lens periphery
 - b) increased magnification towards lens periphery
 - c) dispersion
 - d) none of these.
- vi) Supra frame is a
 - a) metal frame b) plastic frame
 - c) semi rimless frame d) rimless frame.

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CS/B.OPTM/SEM-4/BO 2013 vii) If the eyelashes rub the lens, the fitter should spread the temples

a)

- b) spread the nose-pads
- increase the vertex distance c)
- d) move the vertical position of the pad upwards.

viii) ARC consists of an extremely thin layer of

a)	calcium fluoride	b)	magnesium fluoride
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- c) sodium fluoride d) none of these.
- ix) Photochromatic lens contains crystals of

a)	silver bromide	b)	silver halide

- silver chloride c) d) all of these.
- B. Fill in the blank : 1 x) The transposed value of -4.50 DS/-1.00 × 40 is

GROUP – B

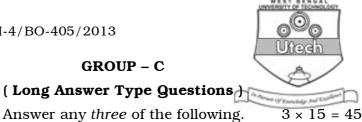
(Short Answer Type Questions)

Write short notes on any *three* of the following. $3 \times 5 = 15$

- 2. Curve variation factor.
- 3. Polaroid lenses.
- 4. Standard alignment.
- 5. D-Bifocals.
- 6. Base curve.

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- 7. What is PAL ? What is the difference between hard and soft progressive add lens design ? Write the standard method for taking progressive lens fitting Measurements. Describe the advantages and disadvantages of PAL.
- 8. What is pediatric dispensing ? Write down the frame and lens selections criteria of pediatric. How to measure PD of a pediatric patient ?
- 9. Describe the different types of mutifocal lenses with suitable examples. Describe with the help of suitable diagrams dimensions of bifocal and trifocal segment.
- 10. Differentiate between 'Boxing" and "Datum" systems and explain both the terms.

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