



Name :

Roll No. :

Invigilator's Signature :

CS/B.OPTM/SEM-4/BO-405/2012

2012

OPHTHALMIC LENS & DISPENSING OPTICS

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. Choose the correct alternatives for the following :

10 × 1 = 10

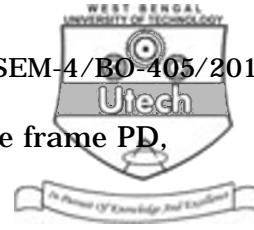
- i) The geometric centre distance of a frame marked 52 [] 18 is
 - a) 52
 - b) 72
 - c) 70
 - d) 68.
- ii) Which of the following is indicated & should be used when fitting the high index lens wearer ?
 - a) Rounded corners
 - b) Large lenses
 - c) Excessive decentration
 - d) Crown glass lenses.

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[Turn over



- iii) If the wearer complains of the bifocal line somewhat in the way when driving the problem may be alleviated by
- a) increasing the distance between pads
 - b) moving the vertical position of the pad upward
 - c) increasing pantoscopic tilt
 - d) all of these.
- iv) A problem of annoying internal lens reflection occurs most often in
- a) high plus powered lenses
 - b) low minus powered clear lenses
 - c) AR coated clear lens
 - d) sunlenses.
- v) Which one could not be the cause of both lashes touching the lenses ?
- a) Insufficient pantoscopic tilt
 - b) Base curve too flat
 - c) Pad arms too curled
 - d) Pads too close or DBL too narrow.
- vi) 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.



- vii) When the wearer's PD is less than the frame PD,
- a) positive face form is required
 - b) negative face form is required
 - c) pantoscopic tilt is required
 - d) retroscopic tilt is required.
- viii) Barrel distortion is the result of magnification towards lens periphery
- a) decreased
 - b) increased
 - c) both (a) and (b)
 - d) none of these.
- ix) Polycarbonate lenses have a refractive index of
- a) 1.58
 - b) 2.38
 - c) 3.28
 - d) 2.58.
- x) In soft design PAL, the intermediate zone is
- a) shorter
 - b) longer
 - c) both (a) and (b)
 - d) none of these.

GROUP - B

(Short Answer Type Questions)

Write short notes on any *three* of the following.

3 × 5 = 15

- 2. Impact resistant lenses.
- 3. Segment height.
- 4. Base curve
- 5. Boxing system.



GROUP - C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

6. Describe different types of Bifocal lenses with suitable examples. Discuss Aspheric lenses. What do you mean by Thin lite lenses ? $7 + 5 + 3$
7. a) What is IPD ? How will you proceed to measure monocular and Binocular IPD ?
- b) Describe the problems that a patient may face after weering wrongly centered bifocals. $10 + 5$
8. a) What are the points to be checked in verification of spectacles of a patient complaining of intolerance to recently prescribed bifocal glasses.
- b) Discuss prism effects in a lens. When and why do we prescribe prisms in spectacle prescription. $7 \frac{1}{2} + 7 \frac{1}{2}$
9. a) Discuss Occupational health safety Legislation.
- b) Discuss the role of prescribing special lenses to reduce — occupational hazards at work places, industrial accidents and injuries and special requirements for prescribing lenses for sportspersons.

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