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# CS/B.OPTM/SEM-5/BO-502/2011-12 2011 CONTACT LENS - I

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 )

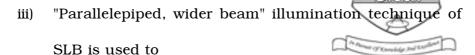
1. Choose the correct alternatives for any *ten* of the following :

 $10 \times 1 = 10$ 

- i) Each of the following instruments can be used to measure overall diameter of RGP lens *except* 
  - a) V-gauge
  - b) Radiuscope
  - c) Moire-fringe deflectometer
  - d) Megnification loupe.
- ii) Who can be considered as the 'father of contact lenses'?
  - a) René Descartes
- b) Leonardo da Vinci
- c) Otto Wichterle
- d) Sir John Herschel.

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- a) Assess Corneal thickness
- b) Determining the anterior chamber angle
- c) Assessing the wettability of a contact lens material
- d) Observe corneal stroma, epithelium, lens surface and endothelium.
- iv) The temperature for heat disinfection is
  - a)  $30 60^{\circ}$  celsius
- b)  $100 140^{\circ}$  celsius
- c)  $70 80^{\circ}$  celsius
- d)  $10 30^{\circ}$  celsius.
- v) All are propecties of contact lense except
  - a) Wettability
  - b) Elasticity
  - c) Oxygen permeability
  - d) Oxygen transmissibility.
- vi) Bausch and Lomb Keratometer is a
  - a) Two position Keratometer
  - b) One position Keretometer
  - c) None of these
  - d) Both (a) and (b).

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b) zero

d) < 40.

viii) A flet fitting lens is characterized by all except

- a) excessive movement
- b) high or low riding horizontally displaced lens
- c) little or no movement
- d) none of these.

ix) The percentage of tear exchanged with a Rigid contact lens on a blink is

b) 1-4

c) 
$$20 - 25$$

d) 16 - 19.

x) The method which produces aspheric soft contact lens is

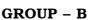
- a) cast moulding
- b) lathe cut
- c) spin cast
- d) reverse process III.

xi) TD neutraliser in hydrogen peroxide system is

- a) catalase
- b) cyclase
- c) sodium thiosulphate
- d) sodium transferase.

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## (Short Answer Type Questions)

Write short notes on any three of the following.

 $3 \times 5 = 15$ 

- 2. Indications and Contraindications of contact lens wear.
- 3. Advantages and disadvantages of 'Lathing'.
- 4. The base curve and peripheral curves of a RGP lens.
- 5. Oxygen permeability and oxygen transmissibility.

#### GROUP - C

### (Long Answer Type Questions)

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

- 6. Discuss the fitting procedure for R.G.P. lenses.
- 7. a) Explain the spin cast technique of soft lens manufacture.
  - b) How does a contact lens stay on the eye? 10 + 5
- 8. a) Discuss the role of various components of a typical contact lens solution.
  - b) What are the complication that can occur due to an improperly fitted contact lens? 10 + 5
- 9. a) What are the important contact lens materials as per FDA classification?
  - b) Discuss the benefits of an initial trial lens fitting, before final ordering of a soft contact lens. 7 + 8

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