

VINAYAKA MISSION'S RESEARCH FOUNDATIONS, SALEM
(Deemed to be University)

B.OPTOMETRY DEGREE EXAMINATION – February 2020
Third Year

CONTACT LENS

Time: Three hours

Maximum: 80 marks

I Choose the best answer

(10 x 1 = 10)

1. Low oxygen transmissibility can result in all except:
 - a) Blebs
 - b) Polymegathism
 - c) Oedema
 - d) Corneal indentation
2. The corneal swelling measured with overnight SiHy wear has been shown to be:
 - a) Greater than with hydrogel overnight wear
 - b) Less than the no lens situation.
 - c) Of no significant difference to the no lens situation.
 - d) High enough to cause subjective blur to vision for the first hour after waking.
3. RGP lens care & maintenance involves which of the following
 - a) Cleaning, disinfection, rinsing
 - b) Only disinfection
 - c) Only disinfection & rinsing
 - d) None of the above
4. Which of the following is not an option of keratoconus contact lens fitting
 - a) Orthokeratology
 - b) Rigid gas permeable lens
 - c) Scleral lens
 - d) Piggyback lenses
5. Which of the following is NOT characteristic of a good soft contact lens fit?
 - a) Post blink movement of 0.75 mm
 - b) Improved vision immediately after ablink
 - c) Complete corneal coverage
 - d) Front surface keratometry showing clear and regular mire reflections.
6. 7.80 BC RGP shows an optimal fitting. The power of trial lens is -10.00 and the total diameter of the lens is 9.50. The over refraction value is +5.00. What will be the final lens specifications?
 - a) 7.80/ -4.75/ 9.50
 - b) 7.80/ -5.00/9.50
 - c) 7.80/ -10.50/ 9.50
 - d) 7.80/ -5050/ 9.50
7. Thimerosal is a _____ used in contact in lens solutions.
 - a) Viscosity enhancing agent
 - b) Buffer
 - c) Preservative
 - d) Surfactant
8. Which of the following is NOT considered as a primary aim of therapeutic CL?
 - a) Relief of ocular pain
 - b) Promotion of corneal healing
 - c) Mechanical protection & support
 - d) Vision improvement

9. The haptic portion of the sclera lens is

- a) Lens psrt which overlays cornea
- b) Part which overlays sclera
- c) Entire sclera lens
- d) None of the above

10. Wearing contact lens only while the eyes are open is defines as

- a) Daily wear
- b) Extended wear
- c) Flexible wear
- d) Continuous wear

II State whether the following statements are **TRUE** or **FALSE** (10 x 1 = 10)

1. Average central corneal thickness is 0.67 mm.
2. PMMA was invented by Crawford J and Hill R.
3. Oxygen permeability is a material property and not a lens property.
4. Low water content lenses are more prone to pervaporation.
5. Base curve selection for SCL is done by adding 0.3 – 0.9 mm to flat K.
6. Push up test is the most predictive test for assessing the fit of a SCL.
7. Using daily disposable contact lenses reduces the risk of Microbial keratitis.
8. A SCL decentration of 0.5mm on primary gaze is considered abnormal.
9. Group I SCL is less prone to deposits than Group IV SCL.
10. Double slab off stabilization technique has thicker zones superiorly and inferiorly.

III Fill in the blanks: (10 x 1 = 10)

1. _____ patented the first corneal contact lens.
2. _____ states the O₂ concentration of a mixture which produces a corneal response equivalent to that resulting from wearing the contact lens.
3. Increasing sagittal height will _____ the contact lens fit.
4. Corneal endothelium has _____ shaped cells.
5. Therapeutic contact lens should be fitted slightly _____ to decrease the symptoms o the patient.
6. Soft contact lens fitting philosophy says soft lens should be _____ than cornea, BOZR should be flatter than cornea.
7. _____ deposits are shiny and greasy in appearance.
8. Total diameter of SCL is selected by adding _____ to HVID.
9. Surfactant cleaners remove _____ deposits from the lens surface.
10. _____ of sclera lens overlays sclera/ conjunctiva.

IV Write any **FIVE** answers of the following: (5 x 6 = 30)

1. Name 5 stabilization for toric lens. Explain any 2 in detail.
2. Explain rule of thumb ‘Increase in diameter by 0.5mm = increase in BOZR by 0.3mm with help of an example.
3. A patient has a refractive error RE: -3.25/ -2.50×160. What would your choice toric trial lens.
4. After inserting the trial lens there is a 10 degree rotation to the left.

5. What would be your final lens prescription?
6. Enumerate the advantages of SCL over RGP. Name few conditions in which RGP is indicated.
7. Write about signs, symptoms, aetiology & management of contact lens induced acute red eye.
8. List the characteristics of flat fit and other findings seen in a flat fit in RGP fitting.
9. What are the characteristics of a preservative? Explain any 2 in detail?

V. Write an essay on any **TWO** of the following: (2 x 10 = 20)

1. What are the steps involved in pediatric aphakic contact lens fitting? What materials are available? Tabulate how you would choose the base curve and total diameter based on age.
2. What are the various modalities of soft contact lens? Classify on material, wearing schedule & example for each.
3. What are the essential steps of care and maintenance of RGP contact? Write in detail about each step.

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