

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

**B.OPTOMETRY DEGREE EXAMINATION – August 2018**  
**Third Year**

**CONTACT LENS**

Time: Three hours

Maximum: 80 marks

I Choose the best answer

(10 x 1 = 10)

1. Cornea is composed of \_\_\_\_\_ % collagen  
a) 10  
b) 15  
c) 18  
d) 20
2. Microplicae and microvilli are present in  
a) Surface epithelium  
b) Descent membrane  
c) Endothelium  
d) Bowman's membrane
3. Ground substance of corneal stroma are  
a) Hydrophobic  
b) Hydrophilic  
c) Non-polar  
d) None of the above
4. \_\_\_\_\_ was the first to give sketches of a schematic eye  
a) Leonardo da vinci  
b) Thomas young  
c) Benvamin franklin  
d) Rene Descartes
5. \_\_\_\_\_ can be described as father of contact lenses  
a) Leonardo Da Vinci  
b) Rene descartes  
c) Sir John Herschel  
d) Thomas young
6. Low oxygen transmissibility can result in  
a) Microcysts  
b) Polymegathism  
c) Corneal pH changes  
d) All the above
7. Carbon dioxide permeability of lens material hydrogel is  
a) 7:1  
b) 14:1  
c) 21:1  
d) 25:1
8. Wettability can be measured by  
a) DR/T  
b) EOP  
c) Sessile drop  
d) All the above
9. Oxygen permeability of PMMA is \_\_\_\_\_  
a) 25  
b) 0  
c) 12  
d) None of the above
10. High cost per lens results in \_\_\_\_\_ technique  
a) Molding  
b) Spin casting  
c) Lathing  
d) All the

(p.t.o)

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

1. PMMA was the first material used for making contact lenses
2. Molding is the cheapest method to start production
3. High water content lenses are fragile
4. Stroma contributes upto 60% of corneal thickness
5. Glands of leis are sweat glands
6. Boric acid acts as a disinfectant in CL solution
7. Protein removal can be done on a weekly basis
8. With the help of radiuscope, contact lens thickness can be measured
9. Epithelial edema is usually reversible
10. Sterile corneal infiltrates are caused by preservatives

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

1. \_\_\_\_\_ inactivates the metals in solution and prevents discoloration
2. \_\_\_\_\_ techniques of manufacturing gives high quality surface design
3. \_\_\_\_\_ has high optical quality and zero oxygen permeability
4. Diameter (TD) of PMMA lenses vary between \_\_\_\_\_ mm
5. \_\_\_\_\_ (front /back) curve determines the power of contact lens
6. Lens may ride \_\_\_\_\_ (high/low) in case of tight lid laxity
7. Little or no movement of lens indicates a \_\_\_\_\_ curve
8. Type c cosmetic CL is used in \_\_\_\_\_
9. \_\_\_\_\_ (Aspheric/spherical) results in better alignment
10. Wide edge results in \_\_\_\_\_ fit

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

1. Give a brief account of tear function tests
2. List the uses of direct illumination in slit lamp examination
3. Discuss about the materials used for RGP manufacturing
4. Write brief notes on CL terminology
5. Enumerate the indications of contact lens
6. Give notes on RGP CL design
7. What are the effects of RGP CL parameter changes on lens fitting?

V Write any **TWO** essays of the following: (2 x 10 = 20)

1. Discuss in detail about preliminary measurements and investigations in CL fitting
2. Write in detail about RGP CL fitting assessment
3. Explain about the contact lens hygiene and after care

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(Sl.No. M19249)