TEE/BOPTO601/2019/2021 - 22





Brahes a surfversity Barasat, Keikata -700125

BRAINWARE UNIVERSITY

Term End Examination 2021 - 22 **Programme – Bachelor of Optometry** Course Name - Contact Lens - II **Course Code - BOPTO601** (Semester VI)

Time allotted: 1 Hrs.15 Min.

Full Marks: 60

[The figure in the margin indicates full marks.]

Group-A

(Multiple Choice Type Question)

1 x 60=60

Choose the correct alternative from the following:		
(1) The chances of complications is highest in-	•	
a) extended wear lenses	b) daily wear lenses	
c) flexible wear lenses	d) daily disposable lenses	
(2) Tinted Contact lenses are indicated in all conditions except		
a) corneal opacity	b) amblyopia patching	
c) changing eye colour for cosmetic use	d) all	
(3) The usual diameter of a sclera lens ranges from		
a) 9mm-10mm	b) 12mm-16mm	
c) 16mm-18mm	d) 18mm-20mm	
(4) 3 point touch fitting is used in case of-		
a) keratoconus	b) paediatric aphakia	
c) corneal scar	d) none	
(5) The ratio of CO2 permeability to O2 permeability except-	for the main material categories are	
a) 2:1 for hydrogels	b) 7:1 for rigid gas permeable lenses	
c) 8:1 for silicone elastomers	d) 1:1 for hard lenses	
(6) Tight fit contact lens shows signs of-		
a) uniform lens coverage	b) circumciliary congestion	
c) fluctuating vision clears on blinking	d) all the above	
(7) Loose fit contact lens shows signs of-		
a) lens coverage showing eccentric movement >1	b) variable vision blurs on blinking	

e) air bubble inside the lens	d) all the above
(8) what should be kept in mind while fitting the cor	ntact lens?
a) TD should be >1.5-2.0 mm than HVID	b) BC should be 0.80-1.00 mm flatter than flattest k reading
c) Lens power=spherical power+1/2 cylinder power,VD correction	d) all the above
(9) requirements necessary to fit soft contact lens ar	e all except-
a) centre on the eye	b) confirm to the anterior eye
c) produce good and stable vision	d) move adequately
(10) In which condition use of contact lens is not adv	risable-
a) optical correction	b) cosmetic use
c) therapeutic use	d) conjunctivitis
(11) Which preservative is used in the majority of m	ultipurpose solution?
a) polyhexamethyline biguanide	b) Fusarium solani
c) polyquaternium	d) serratia marcescens
(12) what percentage of the bio-burden of a lens is redisinfection according to most studies?	emoved by rubbing and rinsing before
a) 75% and above	b) 80% and above
c) 85% and above	d) 90% and above
(13) A disinfecting agent is capable of killing 99.999 logarithmic scale which log reduction does the	% of bacteria. Corresponding to the following compound corresponds?
a) 4 log	b) 3 log
c) 2 log	d) 1 log
(14) which of the following are the common agents disinfect the lenses?	
a) chlorhexidine and papain	b) hydrogen peroxide and papain
c) thimerosal and chlorhexidine	d) chlorobutanol and hexidine
(15) Fluorophotometry is an useful measure of	
a) the pattern of sodium fluorescein in RGP fitting	b) the expulsion of post-lens tear volume in Silicone hydrogels
c) tear exchange in hydrogel soft lenses	 d) movement of debris and metabolites in pre- corneal tear film
(16) which among the following is not correct regar	ding RGP?
a) impermeable to Oxygen	b) high Dk value
c) corneal abrasions mostly occurs	d) obsolete
(17) RGP Lens Fabrication Techniques are-	
a) lathing	b) spin-casting
c) both a and b	d) none
(18) low magnification in slit lamp biomicroscope r	means
a) 7X-10X	b) 5X-10X
c) 1X-10X	d) 2X-9X
(10) What does the learntemeter actually measures?	,

	· ·
a) apparent front surface corneal curvaturec) sagittal radius	b) limited to central 3mm appx. d) all
(20) All are true of centre distance designed bifocal co	ntact lenses except
a) low illumination favouring near vision c) the centre has maximum add power .	b) high illumination favouring distance vision d) the centre has minimum add power
(21) Prosthetic contact lens is given in-	
a) microphthalmos	b) failed grafts
c) corneal scars	d) all
(22) All are the types of tint except-	·
a) transparent	b) opaque
c) semi-opaque	d) translucent
(23) all are the feature of reverse geometry lenses exce	ept-
a) 1st peripheral curve is flatter than base curve	b) 1st peripheral curve is steeper than the base curve
 c) produces rapid and stable change in corneal curvature 	d) poor centration
(24) The maximum reduction in myopia achieved with	orthokeratology in most studies is-
a) < or = 5D	b) $<$ or $= 10 D$
c) < or = 2 D	d) < or = 8 D
(25) The disadvantage of orthokeratology is-	
a) it is not a permanent solution	b) limited correction of refractive error
c) potential for non- compliance	d) both eyes are altered at same time
(26) Multifocal soft contact lenses shows a reduction of elongation by-	of myopia progression and axial
a) 0.2	b) 0.38
c) 0.52	d) 0.9
(27) The factors associated with slow rate of progressi	on with orthokeratology is-
a) large pupil dia	b) deep AC
c) steeper or more prolate cornea	d) all the above
(28) All are true of the optical correction for myopia e	xcept-
a) peripheral retina is not a major component of refractive error	 b) axial elongation decreases with peripheral myopia
 c) single vision contact lenses results peripheral hyperopia 	 d) center-distance multifocal soft contact lenses results peripheral myopia
(29) All are true of scleral lenses except-	
a) higher oxygen permeability	b) relies on tear exchange beneath the contact lens
c) increased corneal physiology	d) anterior segment OCT aids fitting
30) the indications of fitting scleral contact lenses are	-
a) irregular astigmatism	b) poor cl centration with GP lenses
c) ocular surface disorders	d) all the above
31) The appropriate apical clearance for scleral lens is	, S-
a) 100-200μ	b) 200-400µ
<i>a)</i> 100-200μ	-7 1.

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	c) 400-800µ	d) >800µ
(32) The initial base curve selected for scleral lens trial	is-
	a) on K +2D	b) on K
	e) mean K +1D	d) mean K -1D
(33) The method which produces aspheric soft contact lenses is:		
	a) cast moulding	b) lathe cut
	c) spin cast	d) reverse process III
(:	34) Which of the following is true of soft contact lens	es?
	 a) HEMA materials having greater Dk with low water content 	b) SiHy have greater Dk with low water and silicone content
	 c) SiHy have greater Dk with high water and low silicone content 	 d) SiHy have greater DK with high silicone content and low water content
(3	35) All of the following are true about soft contact len	s material except:
	a) Group 4 should avoid heat disinfection, sorbic acid and potassium sorbate, lens parameters may be sensitive to changes in pH	b) Group 3 includes many disposable or planned replacement lenses
	c) Group 2 can be discolored by preservatives containing sorbic acid and potassium sorbate	d) Group 1 contain low water and nonionic polymers
(:	36) the asphericity of the contact lens is determined by	y-
	a) p- value	b) e- value
	c) d- value	d) all
(:	37) Which type of filter is used to check the RGP fitti	ng?
	a) cobalt blue filter	b) red free filter
	c) wratten filter 12	d) none
(3	88) Backbone material of RGP lens:	
	a) PMMA	b) HEMA
	c) MMA	d) Butyl Styrene
(3	39) Standard base curve of soft contact lenses are-	
	a) 8.7mm	b) 8.6 mm
	c) 8.6-9.1 mm	d) 8.4 mm
(4	(0) Which of the following is not a symptom of Dry I	Eye?
	a) Watering eyes	b) Reduced TBUT
ž.	c) Occasional blurred vision	d) Itching eyes
(4	1) When fitting rigid lenses and assessing the fluores	scein pattern you should record?
	a) Central fluorescein pattern	b) Mid periphery
	c) Edge Clearance	d) All the above
(4	2) If a lens decenters which cannot be done to impro	vise the centration of the lens?
	a) increase BOZD, maintain same diameter	b) decrease BOZR, maintain same total diameter
	c) increase lens thickness	d) decrease total diameter, maintain BOZR
(4	3) K reading:K 1:7.90mm@180°,K 2:7.50 mm@90 back surface curve?	
	a) 7.90mm	b) 7.80 mm
	c) 7.70 mm	d) 7.50 mm

(44) Ordered lens is-3.00DS, Trial lens is -2. power?	00 DS, Tear Lens is -1.00DS what will be the fine
a) -1	b) 1
c) 0	d) 2
(45) The diameter of RGP lenses are verified	
a) lens analyzer	b) V sought gauge
c) projection analyzer	d) none
	distance power in dominant eye and near power in
a) enhanced monovision	b) simultaneous bifocal
c) alternating bifocal	d) monovision
(47) The method to check ocular dominance	e is-
a) sighting dominance	b) cover test
c) duochrome test	d) prism bar cover test
(48) Tinted contact lenses helps in-	
a) lens handling	b) reduce sensitivity to light
c) enhancing eye colour	d) all the above
(49) All are true for orthokeratology except-	
a) non-spherical prolate cornea	b) HVID<11 mm
c) <1.50D cyl WTR astigmatism	d) RX: -0.50D4.00D
(50) Plasma treatment of silicone lenses is d	•
a) methane gas	b) ethylene
c) hydrogel	d) elastomers
(51) After ignoring the tear film the actual r	efractive index of cornea is
a) 1.3375	b) 1.376
c) 1.336	d) 1.367
(52) is responsible for tear film stabil	lity
a) hemidesmosomes	b) basement membrane
c) microplicae	d) meibomian glands
(53) Which of the following is the first com	bination of Hybrid lenses?
a) Saturn lens	b) Softskirt
c) Softperm	d) Silsoft
(54) Theoretically, contact lenses are contrai	ndicated in cases of
a) oblique astigmatism	b) axial anisometropia
c) refractive anisometropia	d) irregular astigmatism
(55) which is the most important metabolic producing molecules for biosynthesis?	pathway which rather than producing energy for
a) TCA cycle	b) HMP shunt pathway
c) Krebs cycle	d) Citric acid cycle
(56) Which of the following is not an action	of the lens care system?
a) cleaning	b) rewet/rehydrate
c) lubricate	d) remove microorganisms

(57) which of the following is not a method by w	hich a virus produces a diesease?
a) inhibits cell metabolism and synthesis	b) compromises host defences
c) induces tumour formation	d) produces toxins or enzymes
(58) Presence of increased viscosity in lens care	products lead to all of these except
a) soothing effect	b) reduced irritation
c) slippery nature	d) altering lens water content
(59) One of the following is not an advantage of	wet storage of the lens?
a) wettability	b) controls microbial contamination
c) improves lens hydration	d) decreases eye comfort
(60) Which is the microorganism associated with	n contact lens induced microbial keratitis?
a) Pseudomonas aeruginosa	b) H influenza
c) Klebsilla sp	d) Neisseria