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BRAINWARE UNIVERSITY

Term End Examination 2023

Programme – B.Optomtry-2019/B.Optomtry-2020

Course Name – Optometric Optics II

Course Code - BOPTO401

(Semester IV)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :
- (i) Near PD can either be measured or calculated. When measured, the distance from the dispenser's eye to the subject's eye should be:
 - a) the proposed working distance
 - b) the near point of accommodation.
 - c) 40 cm
 - d) 33 cm
 - (ii) When the frame front is tested for four-point touch, but only touches on the two temporal eyewires, the frame:
 - a) has face form
 - b) is skewed
 - c) is out of coplanar alignment
 - d) has X-ing
 - (iii) A situation where the frame front is somewhat twisted, with the planes of the two lenses being out of line with one another, is called:
 - a) X-ing
 - b) twisting
 - c) a skewed bridge
 - d) wraparound
 - (iv) Retrosopic tilt" is manifested:
 - a) When the top of the frame front is closer to the wearer's face plane than the bottom of the frame front.
 - b) When the bottom of the frame front is closer to the wearer's face plane than the top of the frame front.
 - c) When one lens is closer to the wearer's face plane than the other lens.
 - d) When one lens is higher on the wearer's face than the other lens.
 - (v) new bifocal wearer must:
 - a) drop the eyes to read a book.
 - b) keep the head erect and drop the eyes to see the floor.
 - c) drop the chin and head to engage in near work.
 - d) All of these are correct
 - (vi) How should bifocal height be positioned for a child?
 - a) At the lower edge of the pupil
 - b) At the center of the pupil

- c) Between the lower limbus and the lower edge of the pupil d) 4 mm above the center of the pupil
- (vii) When a wearer's frames are both slipping down the nose and hurting behind the ears, the most probable solution would be to:
- a) move the temple bend farther forward on the temple b) move the temple bend farther back on the temple.
 c) increase the temple spread. d) decrease the bridge size.
- (viii) A thick lens has a convex front surface and a plano back surface. Which of the following statements about this lens is true?
- a) The front vertex power is greater than the back vertex power b) The back vertex power is greater than the front vertex power
 c) Front and back vertex powers will be equal. d) Such a lens will always have the seg on the back surface
- (ix) Name the material which is 'nylon based' and hypoallergenic in nature?
- a) Cellulose acetate b) Polyamide
 c) Aceto propionate d) Polycarbonate lens
- (x) Benjamin Franklin bifocal also known as
- a) Solid curve bifocal b) split bifocal
 c) fused bifocal d) all
- (xi) In round shape bifocal the near segments consist of:
- a) Intermediate power b) Near power
 c) Distance power d) None
- (xii) Which of the following disadvantage of Benjamin Franklin's bifocal:
- a) Less chromatic aberration b) No vertical image jump.
 c) Dividing line produce reflection. d) All of the above.
- (xiii) Advantages of Kryptok bifocal:
- a) Light weight b) Lenses can produce in large quantities
 c) Segment do not fall out d) All of the above
- (xiv) Disadvantages of Executive bifocal :
- a) Heavy b) Ugly
 c) The edge of segments chips easily d) All of the above
- (xv) ____ Used primarily for sport or safety purposes
- a) polycarbonate b) Optyl
 c) Kevlar d) Nylon

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Write the procedure of Near IPD measurement for dispense the spectacles. (3)
3. When we prescribe the polaroid lenses? What are the limitation of that? (3)
4. Explain the UV coating. (3)
5. Explain the Pantoscopic tilt and its importance in ophthalmic practices. (3)
6. RE: -2.00 Dsph with decentration 4 mm nasally and LE: +1.00 Dsph with decentration 3 mm superiorly. Calculate the total prismatic effects. (3)

OR

Sumarize Trivex with advantage and disadvantage. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Describe the symmetrical and asymmetrical design of PAL with their benefits in day to days practices. (5)
8. What are the parameters we check before dispense the PAL to the patients? (5)
9. What is impact resistance? Explain the test which we used to check the impact resistance of any ophthalmic lenses. (5)
10. How to check the impact resistance of a lens? (5)
11. write down the advantage and disadvantage of crown glass. (5)
12. Compare between polyamide and gold filled frame materials which is used ophthalmic industry. (5)

OR

If the height of bifocal segments is slightly higher, what are the problems patients face and how will you solve the issue? (5)
