



BRAINWARE UNIVERSITY

Term End Examination 2023-2024

Programme – B.Optomety-2021/B.Optomety-2022

Course Name – Ophthalmic Lens & Dispensing Optics-II

Course Code - BOPTOC401

(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) The ideal fitting height and pantoscopic tilt in degree required to fit a PAL:
- | | |
|--------------|---------------|
| a) 20 mm & 8 | b) 24 mm & 12 |
| c) 28 mm & 5 | d) None |
- (ii) Which of the following disadvantage of PAL:
- | | |
|--------------------|------------------------------|
| a) Better cosmesis | b) Extended working distance |
| c) No image jump | d) More time to adaptation |
- (iii) Which one of the following should be considered while selecting a frame for high plus prescription:
- | | |
|--|------------------------------------|
| a) Rounded corner frame with smaller eye size. | b) Large frame shape , sharp edges |
| c) Library design temples preferred | d) None of these |
- (iv) Indicate the disadvantages of Fresnel Prisms.
- | | |
|---|----------------------------------|
| a) Poor optics because of multiple prisms | b) Heavy and at times irritating |
| c) Expensive | d) None of these |
- (v) Reduced back vertex distance gives a:
- | | |
|------------------------|---------------------------|
| a) wider field of view | b) narrower field of view |
| c) both a & b | d) None of these |
- (vi) MAR coating is done for:
- | | |
|-----------------------|----------------------|
| a) Reduce ghost image | b) reduce reflection |
| c) oil-registance | d) all |
- (vii) Tint lens mainly used for:
- | | |
|---------------------|-----------------------------|
| a) Improve contrast | b) enhance depth perception |
| c) reduce glare | d) all |
- (viii) Scratch resistance coating can be apply:
- | | |
|------------------------------|----------------------|
| a) Only front surface | b) only back surface |
| c) both front & back surface | d) None |

- (ix) Which of the following attributes are comes under the AR coating?
 a) Hydrophobic
 c) reduce ghost image
 b) Oleo-phobic
 d) all
- (x) Name the material which is 'nylon based' and hypoallergenic in nature?
 a) Cellulose acetate
 c) Aceto propionate
 b) Polyamide
 d) Polycarbonate lens
- (xi) Which of the following parameter we should avoid when fitting a high minus wearer?
 a) squared-off corners
 c) aspheric lenses
 b) a high index lens material
 d) smaller eye size
- (xii) Which of the following properties are not glass lenses:
 a) Light weight
 c) High scratch resistance
 b) High impact resistance
 d) None
- (xiii) Types of glass material:
 a) Crown glass
 c) High index glass
 b) Brown glass
 d) All of the these
- (xiv) Importance of the “polish” of the lens:
 a) Reduce the rough and the thickness appearance of high prescription
 c) Decrease the optical quality of the lens
 b) Makes the edge of lens appear like the color of the frame
 d) None
- (xv) Advantages of soft design lenses are:
 a) More easy to adapt, less peripheral distortion, with long intermediate portion.
 c) Wider area of stable optics in both distance and near portion.
 b) Narrow intermediate zone, shorter distance down to near viewing zone.
 d) None of these

Group-B

(Short Answer Type Questions)

3 x 5=15

2. In which cases we prescribe the soft and hard design progressive additional lenses? (3)
3. Explain the iseikonic lens along with their benefits in ophthalmic dispensing. (3)
4. Solve the following problem: Simple transposition: RE -4.50/+1.50 @ 90; LE -2.25/-1.50@ 45 (3)
5. Describe the saddal bridge and keyhole bridge. (3)
6. A 73-year-old male patient came to the clinic complaining that When he tilts his spectacle to one side down on the face, things look straight, otherwise, things look tilted. RE+1.25Dcyl180 6/18, LE +1.25Dsph + 0.75Dcyl 180 6/18, BE Add + 2.50Dsph N6 Lens Type: Executive Bifocal, how will you assess the patient clinically? (3)

OR

- A 46-year-old female patient came to the clinic complaining that, When he looks through the corner of the lens, he sees more clearly than when he sees through the center of the lens. lens prescription showed: RE -2.00Dsph -3.25 Dcyl 170 degree LE -1.25 Dsph -1.50Dcyl 50 degree, BE Add +1.75 Dsph. Lens Type: CR 39 Progressive with AR, how will you assess the patient? (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Explain, why we can't prefer the glass lens materials to the children. (5)

8.



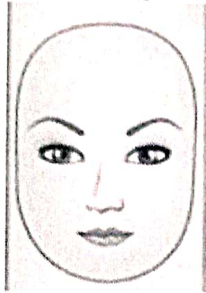
(5)

What type of frame you select for this face shape?

9. Explain any two progressive additional lens design along with their advantage and disadvantage.

(5)

10.



(5)

What type of frame you should prescribe according to this face shape?

11. Draw the diagram of temporary and permanent marking on progressive additional lenses and Explain them. (5)

12. A 20-year-old male patient came to the clinic with the complaint that he felt headache, and vertigo and was unable to see clearly with his new glasses, without glasses he felt comfort, what would be the possible causes and how would you manage the patient? (5)

OR

A 55-year-old female patient came to the clinic with the complaint that she was unable to manage to do the near work after wearing spectacle, for that reason she wants to remove the glasses, what would be the possible causes and how will you correct it? (5)
