

**CERTIFICATE IN DISPENSING OPTICS (CDO)**

**Term-End Examination**

00434

**December, 2014**

**OAH-005 : PROGRESSIVE LENS**

*Time : 90 Minutes*

*Maximum Marks : 30*

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**Note :**

- (i) *There will be multiple choice type of questions in this examination which are to be answered in **OMR Answer Sheets**.*
- (ii) *All questions are **compulsory**.*
- (iii) *Each question will have four options and only one of them is correct. Answers have to be marked in figures in the appropriate rectangular boxes corresponding to what is the correct answer and then blacken the circle for the same number in that column by using **HB** or lead pencil and not by ball pen in **OMR Answer Sheets**.*
- (iv) *If any candidate marks more than one option it will be taken as the wrong answer and no marks will be awarded for this.*
- (v) *There will be 30 questions in this paper and each question carries one mark.*
- (vi) *There will be no negative marking for wrong answers.*
- (vii) *No candidate shall leave the examination hall at least for one hour after the commencement of the examination.*

1. Which of the following provides a smooth transition from distance correction to near correction, eliminating segment lines and allowing the viewing of all intermediate distances ?
  - (1) Progressive lenses
  - (2) Single vision
  - (3) Bifocal lenses
  - (4) Trifocal lenses
  
2. Advantages of progressive lenses are
  - (1) No visible segments or lines of demarcation
  - (2) Clear vision at all distances
  - (3) No unwanted differential image displacement or jump
  - (4) All of the above
  
3. Unwanted Astigmatism is influenced by
  - (1) Add power
  - (2) Length of progressive corridor
  - (3) Width of distance and near zones
  - (4) All of the above
  
4. Which of the following vision includes simultaneous perception, fusion of the images and the stereoscopic sense ?
  - (1) Binocular
  - (2) Single
  - (3) Both (1) and (2)
  - (4) None of the above
  
5. Hard progressive lens design has
  - (1) short progressive corridor
  - (2) long progressive corridor
  - (3) big progressive corridor
  - (4) maximum progressive corridor

- 6. Types of variable power lenses are**
- (1) Double lens systems
  - (2) Deformable lenses
  - (3) Both (1) and (2)
  - (4) None of the above
- 7. Harder progressive lens designs will provide wider fields of clear vision, at the expense of higher levels of**
- (1) swim
  - (2) distortion
  - (3) blur
  - (4) All of the above
- 8. Early designs of progressive power lenses are**
- (1) The Owen Aves lens
  - (2) The Gowlland lens
  - (3) Both (1) and (2)
  - (4) None of the above
- 9. The principal parameters of a progressive addition lens are interrelated and include**
- (1) The size of the distance and near areas
  - (2) The types and intensity of the aberrations
  - (3) The depth and usable width of the progressive corridor
  - (4) All of the above
- 10. Soft design has long progressive**
- (1) corridor
  - (2) cord
  - (3) rod
  - (4) None of the above

- 11. Basic approaches to the design of progressive addition lenses is/are**
- (1) Hard design
  - (2) Soft design
  - (3) Both (1) and (2)
  - (4) None of the above
- 12. Early progressive lenses were**
- (1) asymmetrical in design
  - (2) symmetrical in design
  - (3) Both (1) and (2)
  - (4) None of the above
- 13. The limitation of the hard design is**
- (1) Low aberration
  - (2) High aberration
  - (3) Clear vision
  - (4) None of the above
- 14. Physical measurements of a new progressive addition lens are supplied in the form of**
- (1) The Grid and Contour Plot
  - (2) The Eye-Path Profile of Progression
  - (3) Three-dimensional Topographical Plot
  - (4) All of the above
- 15. Contour plots are used to analyze and compare the optics of**
- (1) PAL
  - (2) single
  - (3) double
  - (4) triple

- 16. Pupillometer is used for**
- (1) Pantoscopic tilt measurement
  - (2) Facial wrap
  - (3) IPD measurement
  - (4) None of the above
- 17. Which of the following is the inclination of the bottom of the lens towards the face from a vertical plane ?**
- (1) Pantoscopic tilt
  - (2) Splay angle
  - (3) Frontal angle
  - (4) Back angle
- 18. The "Twin Rx Technology" is/are**
- (1) Wavefront Management System
  - (2) Point by Point Twinning
  - (3) Both (1) and (2)
  - (4) None of the above
- 19. Single vision lenses can be used for**
- (1) distance separately
  - (2) near separately
  - (3) Both (1) and (2)
  - (4) None of the above
- 20. A single vision reading lens consists of**
- (1) Single sphere
  - (2) Double sphere
  - (3) Triple sphere
  - (4) None of the above

- 21.** Trifocal lens type has
- (1) One segment line
  - (2) Two segment line
  - (3) Three segment line
  - (4) Four segment line
- 22.** Which of the following lenses claims to provide natural vision like a young individual ?
- (1) Progressive
  - (2) Bifocal lenses
  - (3) Single vision lenses
  - (4) Trifocal lenses
- 23.** In progressive addition lenses, increase in power is caused by an increase in
- (1) Curvature in the progressive zone
  - (2) Radius of progressive zone
  - (3) Diameter of progressive zone
  - (4) None of the above
- 24.** Shorter corridors produce more
- (1) Rapid power changes
  - (2) Slow power changes
  - (3) Moderate power changes
  - (4) None of the above
- 25.** With a progressive lens, the criterion for good binocular vision is to enable
- (1) Artificial fusion
  - (2) Natural fusion
  - (3) Both (1) and (2)
  - (4) None of the above

- 26.** The eyes naturally
- (1) Diverge while gazing for hear
  - (2) Converge while gazing for hear
  - (3) Both (1) and (2)
  - (4) None of the above
- 27.** The power progression must be positioned on the lens in order to follow the eye's path of convergence downwards in the
- (1) Nasal direction
  - (2) Temporal direction
  - (3) Both (1) and (2)
  - (4) None of the above
- 28.** To ensure what kind of fusion the retinal images formed in each eye must be similar in all directions of gaze ?
- (1) Sensorial
  - (2) Motor
  - (3) Both (1) and (2)
  - (4) None of the above
- 29.** The original Varilux design, is now known as
- (1) Varilux 1
  - (2) Varilux 2
  - (3) Varilux 3
  - (4) Varilux 4
- 30.** There is no image
- (1) Shift in PALs
  - (2) Jump in PALs
  - (3) Both (1) and (2)
  - (4) None of the above