

CERTIFICATE IN DISPENSING OPTICS (CDO)

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Term-End Examination

December, 2015

OAH-005 : PROGRESSIVE LENS

Time : 90 Minutes

Maximum Marks : 30

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. Bifocals help by providing fixed amount of extra power, while trifocals provide two, usually in steps of one diopter or more.
 - (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say

2. With a progressive lens the eye can find some region of the progression zone where the power is correct for the viewing distance.
 - (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say

3. When there is a need of separate corrections for distance, intermediate and near vision, prescription can be given in one pair of spectacles as trifocal lenses.
 - (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say

4. In dispensing a pair of progressive power of lenses, it is imperative to ensure that each lens is correctly positioned with respect to the pupil.
 - (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say

5. The surface astigmatism inherent in progressive lenses produces a significant amount of cylinder power, which the wearer perceives as blur.
 - (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say

6. Soft design concentrates the intense aberrations into small regions adjacent to the progressive corridor and near add area.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say
7. Variable power lenses rely on some mechanical means of adjusting the power, operated by the wearer.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say
8. Advantage of wider field of clear vision produces higher amounts of unwanted astigmatism.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say
9. A single vision reading lens consists of a single sphere of appropriate radius providing correction for near vision only.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say
10. Which of the following is the process of modelling the theoretical optical performance of the lens as perceived by the wearer with the lens ?
- (1) Ray tracking
 - (2) Ray tracing
 - (3) Both (1) and (2)
 - (4) None of the above

- 11. There is no image**
- (1) Shift in PALs
 - (2) Jump in PALs
 - (3) Both (1) and (2)
 - (4) None of the above
- 12. To ensure which of the following types 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
- 13. The eyes naturally**
- (1) Diverge while gazing for near
 - (2) Converge while gazing for near
 - (3) Both (1) and (2)
 - (4) None of the above
- 14. Shorter corridors produce more of which of the following power changes and higher levels of astigmatism ?**
- (1) Rapid
 - (2) Slow
 - (3) Moderate
 - (4) None of the above
- 15. Which of the following lenses claims to provide natural vision like a young individual ?**
- (1) Progressive lenses
 - (2) Bifocal lenses
 - (3) Single vision lenses
 - (4) Trifocal lenses

16. A single vision reading lens consists of a _____ of appropriate radius providing correction for near vision only.
- (1) Single sphere
 - (2) Double sphere
 - (3) Triple sphere
 - (4) None of the above
17. 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
18. Pupillometer is used for
- (1) Pantoscopic tilt measurement
 - (2) Facial wrap
 - (3) IPD measurement
 - (4) None of the above
19. 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
20. Early progressive lenses were
- (1) Asymmetrical in design
 - (2) Symmetrical in design
 - (3) Both (1) and (2)
 - (4) None of the above

21. Soft design has a long progressive

- (1) Corridor
- (2) Cord
- (3) Rod
- (4) None of the above

22. 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

23. Types of variable power lenses are

- (1) Double lens systems
- (2) Deformable lenses
- (3) Both (1) and (2)
- (4) None of the above

24. _____ 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

25. 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

- 26. 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
- 27. 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
- 28. The limitation of the hard design is**
- (1) Low aberration
 - (2) High aberration
 - (3) Clear vision
 - (4) None of the above
- 29. 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
- 30. In progressive addition lenses, increase in power is caused by an increase in**
- (1) Curvature in the progressive zone
 - (2) Radius in the progressive zone
 - (3) Diameter in the progressive zone
 - (4) None of the above