

CERTIFICATE IN DISPENSING OPTICS (CDO)

Term-End Examination

00298

December, 2015

OA H-001 : BASIC SCIENCE

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. A virtual image is formed if the object is located less than focal length from the concave mirror.
(1) True (2) False
(3) None of the above (4) Can't say
2. Angles measured clockwise from the optic axis are negative.
(1) True (2) False
(3) None of the above (4) Can't say
3. The amount of bending of the path of light in refraction, depends on the power of the two media.
(1) True (2) False
(3) None of the above (4) Can't say
4. A diverging lens is a lens which diverges rays of light which are travelling parallel to its principal axis.
(1) True (2) False
(3) None of the above (4) Can't say
5. The speed of the wave depends upon the optical density of that material.
(1) True (2) False
(3) None of the above (4) Can't say
6. The crystalline lens is enclosed in a highly elastic (flexible) capsule.
(1) True (2) False
(3) None of the above (4) Can't say
7. The eye is much optically inferior than the camera.
(1) True (2) False
(3) None of the above (4) Can't say

8. The individual components of the eye work in a manner similar to a camera.
- (1) True (2) False
(3) None of the above (4) Can't say
9. Optic disc is responsible for color vision.
- (1) True (2) False
(3) None of the above (4) Can't say
10. The choroid also has a high concentration of a pigment called melanin in its cells.
- (1) True (2) False
(3) None of the above (4) Can't say
11. The ratio of the image dimensions to the object dimensions is termed the magnification.
- (1) True (2) False
(3) None of the above (4) Can't say
12. The light ray approaching the mirror is known as reflected ray.
- (1) True (2) False
(3) None of the above (4) Can't say
13. Wavelengths visible to the eye never pass through the optical window.
- (1) True (2) False
(3) None of the above (4) Can't say
14. A double convex lens is symmetrical across both its horizontal and vertical axis.
- (1) True (2) False
(3) None of the above (4) Can't say

15. There are eight extra ocular muscles, which controls the eye movement.

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|-----------------------|---------------|
| (1) True | (2) False |
| (3) None of the above | (4) Can't say |

16. The eye is able to detect bright light or dim light.

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|-----------------------|---------------|
| (1) True | (2) False |
| (3) None of the above | (4) Can't say |

17. Focal length is denoted by :

- | | |
|---------|---------|
| (1) f | (2) F |
| (3) d | (4) D |

18. The speed of the wave depends upon the :

- | | |
|---------------------|---------------|
| (1) Optical density | (2) Thickness |
| (3) Velocity | (4) Thinness |

19. Least dense material is :

- | | |
|------------|--------------------|
| (1) Vacuum | (2) Air |
| (3) Glass | (4) Plastic (CR39) |

20. Index of refraction values, represented by the symbol is :

- | | |
|---------|---------|
| (1) n | (2) v |
| (3) t | (4) m |

21. Which of the following is relevant to cornea ?

- | | |
|-----------------|-----------------------|
| (1) Opaque | (2) Transparent |
| (3) Translucent | (4) None of the above |

22. The distance from the vertex to the center of curvature is known as the :

- (1) Radius of curvature (2) Center of curvature
- (3) Focal point (4) None of the above

23. Objects which are capable of reflecting light to our eyes are :

- (1) Solid objects (2) Illuminated objects
- (3) Non-illuminated objects (4) None of the above

24. The retina contains two types of photoreceptors :

- (1) Rods and cones (2) Macula and fovea
- (3) Optic nerve and optic disc (4) None of the above

25. The optical system of the eye consists of :

- (1) Cornea (2) Aqueous humor
- (3) Crystalline lens (4) All of the above

26. Which gland provides large amount of tears ?

- (1) Zeiss (2) Moll
- (3) Lacrimal (4) All of the above

27. A typical human eye will respond to wavelengths in air from about :

- (1) 380 to 750 nm (2) 750 to 850 nm
- (3) 850 to 950 nm (4) 950 to 1000 nm

28. High resolution color imaging is provided by light sensor cells called :

- (1) Cones (2) Rods
- (3) Both (1) and (2) (4) None of the above

29. Outer side of the sphere is silvered in :

- | | |
|----------------------|-----------------------|
| (1) Concave mirrors | (2) Convex mirrors |
| (3) Both (1) and (2) | (4) None of the above |

30. The visual axis directly straight cut the :

- | | |
|----------------|-------------|
| (1) Fovea | (2) Retina |
| (3) Optic disc | (4) Choroid |
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