

CERTIFICATE IN DISPENSING OPTICS (CDO)

Term-End Examination

00019

December, 2014

OAH-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. The optical system of the eye consists of
 - (1) Cornea
 - (2) Aqueous humor
 - (3) Crystalline lens
 - (4) All of the above

2. 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

3. High resolution color imaging is provided by light cells called
 - (1) Cones
 - (2) Rods
 - (3) Both cones and rods
 - (4) None of the above

4. A diverging lens is a lens which diverges rays of light which are traveling parallel to its principal axis.
 - (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say

5. The distance from the vertex to the center of curvature is known as
 - (1) Radius of curvature
 - (2) Centre of curvature
 - (3) Focal point
 - (4) None of the above

- 6.** The visual axis directly cuts the macula on the retina at
- (1) Fovea
 - (2) Retina
 - (3) Optic disc
 - (4) Choroid
- 7.** The cornea is elliptical in shape and is highly
- (1) Opaque
 - (2) Transparent
 - (3) Translucent
 - (4) None of the above
- 8.** The power of anterior surface of cornea is
- (1) +48.83D
 - (2) +40.00D
 - (3) +10.00D
 - (4) -40.00D
- 9.** Index of refraction values, are represented by the symbol
- (1) n
 - (2) v
 - (3) t
 - (4) m
- 10.** Spherical mirrors have an aberration.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say

- 11.** 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
- 12.** 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
- 13.** A double convex lens is a
- (1) Converging lens
 - (2) Diverging lens
 - (3) Both (1) and (2)
 - (4) None of the above
- 14.** Focal length is denoted by
- (1) f
 - (2) F
 - (3) d
 - (4) D
- 15.** The distance of a real object is
- (1) negative
 - (2) positive
 - (3) Both (1) and (2)
 - (4) None of the above

- 16.** The eye is able to detect bright light or dim light.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say
- 17.** Horizontal diameter of cornea is 11.7 mm and vertical is 10.6 mm.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say
- 18.** There are eight extra ocular muscles, which control the eye movement.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say
- 19.** In the case of an electromagnetic wave, the speed of the wave depends upon the optical density of the material.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say
- 20.** 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

- 21.** A typical human eye will respond to wavelengths in air from about 80 to 50 nm.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say
- 22.** Wavelengths visible to the eye never pass through the optical window.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say
- 23.** The optic nerve consists of a bundle of about one million nerve fibers.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say
- 24.** The light ray approaching mirror is known as reflected ray.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say
- 25.** The angle between the reflected ray and the normal is known as the angle of reflection.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say

- 26.** The ratio of the image dimensions to object dimensions is termed as magnification.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say
- 27.** 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
- 28.** 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
- 29.** The eye is much inferior than the camera.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say
- 30.** Optic disc is responsible for color vision.
- (1) True
 - (2) False
 - (3) None of the above
 - (4) Can't say