

HUMAN EYE AND THE COLOURFUL WORLD

- Q.1)** The muscular diaphragm that controls the size of the pupil is
(A) cornea (B) ciliary muscles
(C) iris (D) retina
- Q.2)** Having two eyes facilitates in
A : Increasing the field of view
B : Bringing three-dimensional view
C : Developing the concept of distance/ size
Then the correct option is/are
(A) A only (B) A and B only
(C) B only (D) A, B and C
- Q.3)** The black opening between the aqueous humor and the lens is called
(A) retina (B) iris
(C) cornea (D) pupil
- Q.4)** The ability of eye lens to adjust its focal length to form a sharp image of the object at varying distances on the retina is called
(A) Power of observation of the eye
(B) Power of adjustment of the eye
(C) Power of accommodation of the eye
(D) Power of enabling of the eye
- Q.5)** Myopia and hypermetropia can be corrected by
(A) Concave and plano-convex lens
(B) Concave and convex lens
(C) Convex and concave lens
(D) Plano-concave lens for both defects.
- Q.6)** Bi-focal lens are required to correct
(A) astigmatism (B) coma
(C) myopia (D) presbyopia
- Q.7)** The image formed on the retina of the human eye is
(A) virtual and inverted
(B) real and inverted

(C) real and erect

(D) virtual and erect

- Q.8)** When white light enters a prism, it gets split into its constituent colours. This is due to

(A) different refractive index for different wave length of each colour

(B) each colours has same velocity in the prism.

(C) prism material have high density.

(D) Scattering of light

- Q.9)** Refraction of light by the earth's atmosphere due to variation in air density is called

(A) atmospheric reflection

(B) atmospheric dispersion

(C) atmospheric scattering

(D) atmospheric refraction

- Q.10)** One cannot see through the fog, because

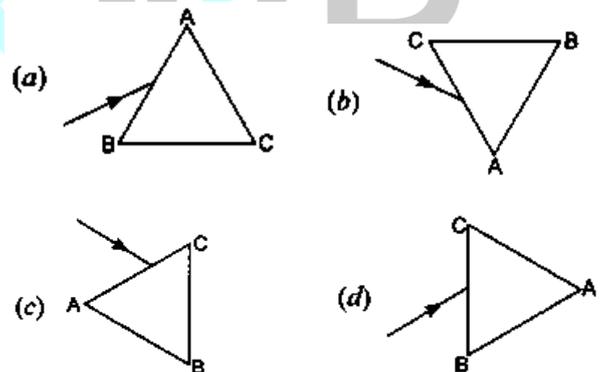
(A) refractive index of the fog is very high

(B) light suffers total reflection at droplets

(C) fog absorbs light

(D) light is scattered by the droplets

- Q.11)** A prism ABC (with BC as base) is placed in different orientations. A narrow beam of white light is incident on the prism as shown in figure. In which of the following cases, after dispersion, the third colour from the top corresponds to the colour of the sky? [NCERT Exemplar Problems]



- Q.12)** At noon the sun appears white as [NCERT Exemplar Problems]
 (A) light is least scattered
 (B) all the colours of the white light are scattered away
 (C) blue colour is scattered the most
 (D) red colour is scattered the most
- Q.13)** Twinkling of stars is due to atmospheric [NCERT Exemplar Problems]
 (A) dispersion of light by water droplets
 (B) refraction of light by different layers of varying refractive indices
 (C) scattering of light by dust particles
 (D) internal reflection of light by clouds.
- Q.14)** When light rays enter the eye, most of the refraction occurs at the [NCERT Exemplar Problems]
 (A) crystalline lens
 (B) outer surface of the cornea
 (C) iris
 (D) pupil
- Q.15)** The least distance of distinct vision for a normal eye is
 (A) infinity (B) 25 cm
 (C) 2.5 cm (D) 25 m
- Q.16)** The defect of vision in which a person cannot see the distant objects clearly but can see nearby objects clearly is called
 (A) myopia (B) hypermetropia
 (C) presbyopia (D) bifocal eye
- Q.17)** The splitting of white light into different colours on passing through a prism is called
 (A) reflection (B) refraction
 (C) dispersion (D) deviation
- Q.18)** Twinkling of stars is due to
 (A) reflection of light by clouds
 (B) scattering of light by dust particles
 (C) dispersion of light by water drops
 (D) atmospheric refraction of starlight
- Q.19)** When white light enters a glass prism from air, the angle of deviation is maximum for
 (A) blue light (B) yellow light
 (C) red light (D) violet light
- Q.20)** The amount of light entering the eye can be controlled by the
 (A) iris (B) pupil
 (C) cornea (D) ciliary muscles
- Q.21)** The medical condition in which the lens of the eye of a person becomes progressively cloudy resulting in blurred vision is called
 (A) myopia (B) hypermetropia
 (C) presbyopia (D) cataract
- Q.22)** Name the scientist who was the first to use a glass prism to obtain the spectrum of sunlight.
 (A) Isaac Newton
 (B) Einstein
 (C) Kepler
 (D) Hans Christian Oersted
- Q.23)** What type of image is formed by the eye lens on the retina?
 (A) Real and erect
 (B) Virtual and inverted
 (C) Real and inverted
 (D) Virtual and erect
- Q.24)** Refraction of light by the earth's atmosphere due to variation in air density is called
 (A) atmospheric reflection
 (B) atmospheric dispersion
 (C) atmospheric scattering
 (D) atmospheric refraction

- Q.25) The focal length of the eye lens increases when eye muscles.
- (A) are relaxed and lens becomes thinner
(B) contract and lens becomes thicker
(C) are relaxed and lens becomes thicker
(D) Contract and lens becomes thinner.
- Q.26) The defect of vision in which the person is able to see distant object distinctly but cannot see nearby objects clearly is called
- (A) Long-sightedness (B) Far-sightedness
(C) Hypermetropia (D) All of the above
- Q.27) Near and far points of a young person normal eye respectively are
- (A) 0 and infinity
(B) 0 and 25 cm
(C) 25 cm and infinity
(D) 25 cm and 150 cm.
- Q.28) The human eye can focus objects at different distances by adjusting the focal length of the eye lens. This is due to
- (A) Presbyopia (B) Accommodation
(C) Near-sightedness (D) Far-sightedness
- Q.29) Which of the following is called converging lens?
- (A) Convex lens (B) Concave lens
(C) Plane lens (D) Any lens
- Q.30) Which of the following is the power of convex lens having focal length 20 cm?
- (A) 4 (B) 6 D
(C) 20 D (D) 5 D

Answer Sheet

Q.1	C	Q.11	B	Q.21	D
Q.2	D	Q.12	A	Q.22	A
Q.3	D	Q.13	B	Q.23	C
Q.4	C	Q.14	B	Q.24	D
Q.5	B	Q.15	B	Q.25	A
Q.6	D	Q.16	A	Q.26	D
Q.7	B	Q.17	C	Q.27	C
Q.8	A	Q.18	D	Q.28	B
Q.9	D	Q.19	C	Q.29	A
Q.10	D	Q.20	B	Q.30	D