Light

Question 1.
The impression or sensation remains on the retina for about how may seconds even after removal of the object ?
(a) 1 second
(b) 1/16th of a second
(c) 16 seconds
(d) 1 minute

▼ Answer

(b) 1/16th of a second
The impression or sensation remains on the retina for about 1/16th of a second even after removal of the object.

Question 2.
The cells present in the retina of eye and responding to intensity of light are:
(a) Rod-shaped cells
(b) Both of these
(c) Cones
(d) None of these

▼ Answer

(a) Rod-shaped cells
The cells present in the retina of eye and responding to intensity of light are Rod¬shaped cells.

Question 3.
The cells present in the retina of eye and responding to colour are:
(a) Rod-shaped cells
(b) Both of these
(c) Cones
(d) None of these

▼ Answer

(c) Cones
The cells present in the retina of eye and responding to colour are cones.

Question 4.
The disease of eye in which crystalline lens becomes hazy or even opaque due to development of membrane over it is :
(a) Myopia
(b) Cataract

(c) Hypermetropia
(d) Presbyopia

▼ Answer

(b) Cataract
The disease of eye in which crystalline lens becomes hazy or even opaque due to development of membrane over it is cataract.

Question 5.
Angle of incidence is equal to the angle of reflection:
(a) Always
(b) Sometimes
(c) Under special conditions
(d) Never

▼ Answer

(a) Always
Angle of incidence is always equal to the angle of reflection.

Question 6.
Image formed by a plane mirror is:
(a) Virtual, behind the mirror and enlarged
(b) Virtual, behind the mirror and of the same size as the object
(c) Real at the surface of the mirror and enlarged .
(d) Real, behind the mirror and of the same size as the object

▼ Answer

(b) Virtual, behind the mirror and of the same size as the object
Image formed by a plane mirror is virtual, behind the mirror and of the same size as the object.

Question 7.
Reflection is:
(a) absorption of light rays by the surface of an object
(b) passing of light rays through the surface of an object
(c) bouncing back of light rays from the surface object
(d) None of these

▼ Answer

(c) bouncing back of light rays from the surface object
Reflection is bouncing back of light rays from the surface of an object.

Question 8.
Splitting of light into its colours is known as:

(a) spectrum
(b) dispersion
(c) rainbow
(d) none of these

▼ Answer

(b) dispersion
Dispersion is splitting of light into its colours.

Question 9.
Which of the following is not a source of light:
(a) Tubelight
(b) The sun
(c) The moon
(d) Fire fly

▼ Answer

(c) The moon
The moon is not a source of light.

Question 10.
Which type of mirror is used to obtain a virtual, laterally inverted image and equal in size of an object ?
(a) plane mirror
(b) concave mirror
(c) convex mirror
(d) all of these

▼ Answer

(a) plane mirror
Plane mirror is used to obtain a virtual, laterally inverted image and equal in size of an object.

Question 11.
The angle between incident ray and normal is called the angle of:
(a) reflection
(b) incidence
(c) refraction
(d) none of these

▼ Answer

(b) incidence
The angle between incident ray and normal is called the angle of incidence.

Question 12.
The lens present in eye is:
(a) convex lens
(b) concave lens
(c) either convex or concave
(d) none of these

▼ Answer

(a) convex lens
The lens present in eye is convex lens.

Question 13.
Kaleidoscope is based on the pattern of:
(a) reflection
(b) multiple reflection
(c) spectrum
(d) diffused reflection

▼ Answer

(b) multiple reflection
Kaleidoscope is based on the pattern of multiple reflection.

Question 14.
When two mirrors are placed parallel to each other, and a candle is placed in the centre of the mirrors no. of images will be formed.
(a) infinite
(b) three
(c) six
(d) no image will be formed

▼ Answer

(a) infinite
When two mirrors are placed parallel to each other and a candle is placed in the centre of the mirrors infinite number of images will be formed.

Question 15.
The difference in the colour of the eye is due to difference in:
(a) retina
(b) iris
(c) sclera
(d) pupil

▼ Answer

(b) iris
The difference in the colour of the eye is due to difference in iris.

Question 16.
Beam of light striking the reflecting surface is called:
(a) Reflecting ray
(b) Incident ray
(c) Refracted ray
(d) Normal

▼ Answer

(b) Incident ray
Beam of light striking the reflecting surface is called incident ray.

Question 17.
Beam of light, bounced back by the surface after falling on it is called
(a) Reflecting ray
(b) Incident ray
(c) Refracted ray
(d) normal

▼ Answer

(a) Reflecting ray
Beam of light, bounced back by the surface after falling on it is called

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Question 18.
Band of seven colours is called:
(a) Dispersion
(c) VIBGYOR
(b) Spectrum
(d) Both (b) and (c)

▼ Answer

(b) Spectrum
Band of seven colours is called spectrum.

Question 19.
Rainbow is formed after rain due to
(a) Dispersion
(c) Reflection
(b) Multiple reflection
(d) Refraction

▼ Answer

(a) Dispersion
Rainbow is formed after rain due to dispersion.

Question 20.
Front bulged part of the eyeball is called:
(a) Cornea
(b) Choroid
(c) Pupil
(d) Retina

▼ Answer

(a) Cornea
Front bulged part of the eyeball is called cornea.

Question 21.
Visually impaired people can read and write using:
(a) Degital pens
(b) Electronic writer
(c) Braille system
(d) Hearing aids

▼ Answer

(c) Braille system
Visually impaired people can read and write using Braille system.

Question 22.
The amount of light entering the eye is regulated by:
(a) Iris
(b) Ciliary muscles
(c) Pupil
(d) Lens

▼ Answer

(a) Iris
The amount of light entering the eye is regulated by Iris.

Question 23.
The focal length of the eye-lens is changed by:
(a) Retina
(b) Iris
(c) Pupil
(d) Ciliary muscles

▼ Answer

(d) Ciliary muscles
The focal length of the eye-lens is changed by ciliary muscles.

Question 24.
The human eye forms the image of an object at its:
(a) Iris
(b) Cornea
(c) Pupil
(d) Retina

▼ Answer

(d) Retina
The human eye forms the image of an object at its retina.

Question 25.
Far point of a normal human eye is situated at:
(a) 25 m
(b) 25 mm
(c) 25 cm
(d) Infinity

▼ Answer

(d) Infinity
Far point of a normal eye is situated at infinity.

Question 26.
The least distance of distinct vision for a young adult with normal vision is:
(a) 25 m
(b) 25 mm
(c) 25 cm
(d) Infinity

▼ Answer

(c) 25 cm
The least distance of distinct vision for a young adujt with normal vision is

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Question 27.
The near point at the age of 60 years is:
(a) 25 cm
(b) 25 m
(c) 200 cm
(d) Infinity

▼ Answer

(c) 200 cm
200 cm is the near point at the age of 60 years.

Question 28.
The massage of image formation is convfeyed to the brain by:
(a) Cornea
(b) Ciliary muscles
(c) Yellow spot
(d) Optical nerve

▼ Answer

(d) Optical nerve
The message of image formation is conveyed to the brain by optical nerve.

Question 29.
A person who cannot see the distant objects is said to be suffering from:
(a) Myopia
(b) Presbyopia
(c) Hypermetropia
(d) Astigmatism

▼ Answer

(a) Myopia
A person who cannot see the distant objects is said to be suffering from Myopia

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Question 30.
A person who cannot see the near by objects is said to be suffering from:
(a) Myopia
(b) Presbyopia
(c) Hypermetropia
(d) Astigmatism

▼ Answer

(c) Hypermetropia
A person who cannot see die nearby objects is said to be suffering from Hypermetropia

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Match the Column-A with Column-B:

Question 1.

Column-A	Column-B
(a) A perpendicular drawn on the surface of mirror, at the point of incidence	(i) reflected ray

(b) A ray of light that falls on a mirror	(ii) reflection
(c) A ray of light that bounces back after striking the mirror	(iii) normal
(d) Returning of a ray of light to the same medium after hitting a surface	(iv) incident ray

▼ Answer

Column-A	Column-B
(a) A perpendicular drawn on the surface of mirror, at the point of incidence	(iii) normal
(b) A ray of light that falls on a mirror	(iv) incident ray
(c) A ray of light that bounces back after striking the mirror	(i) reflected ray
(d) Returning of a ray of light to the same medium after hitting a surface	(ii) reflection

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Question 2.

Column-A	Column-B
(a) When light is incident on smooth, polished and regular surface	(i) dispersion
(b) Reflection from rough surface	(ii) braille system
(c) Visually challenged persons can read and write using	(iii) multiple reflection
(d) Splitting of light into its constituent colours	(iv) regular reflection
(e) Beautiful patterns are formed in a Kaleidoscope due to	(v) diffused reflection

▼ Answer

Column-A	Column-B
(a) When light is incident on smooth, polished and regular surface	(iv) regular reflection
(b) Reflection from rough surface	(v) diffused reflection
(c) Visually challenged persons can read and write using	(ii) braille system
(d) Splitting of light into its constituent colours	(i) dispersion
(e) Beautiful patterns are formed in a Kaleidoscope due to	(iii) multiple reflection

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Question 3.

Column-A	Column-B
(a) Changes the focal length of eye lens	(i) retina
(b) It controls the amount of light that can pass through the eye lens to the retina	(ii) cornea
(c) Opening of the eye	(iii) iris
(d) Protect the eyes	(iv) pupil
(e) The image of object in eye is formed on	(v) ciliary muscles

▼ Answer

Column-A	Column-B
(a) Changes the focal length of eye lens	(v) ciliary muscles
(b) It controls the amount of light that can pass through the eye lens to the retina	(iii) iris
(c) Opening of the eye	(iv) pupil
(d) Protect the eyes	(ii) cornea
(e) The image of object in eye is formed on	(i) retina

State whether the following statements are True or False:

Question 1.
Plane mirror forms inverted image.

▼ Answer

False

Question 2.
Sunlight consists of seven colours.

▼ Answer

True

Question 3.
Reflection of light takes place in the same medium.

▼ Answer

True

Question 4.
Plane mirror forms real image.

▼ Answer

False

Question 5.
Jugnu is a natural source of light.

▼ Answer

True

Question 6.
Light travels in a straight line.

▼ Answer

True

Question 7.
Braille system is used by visually challenged people to read and write.

▼ Answer

True

Question 8.
Kaleidoscope works due to dispersion of light.

▼ Answer

False

Question 9.
Splitting of white light into its constituent colours by a prism is called dispersion.

▼ Answer

True

Question 10.
Light is reflected from all surfaces.

▼ Answer

True

Question 11.
The size of the pupil is controlled by the iris.

▼ Answer

True

Question 12.
Angle of incidence" is always equal to the angle of reflection.

▼ Answer

True

Question 13.
The light ray, which strikes any surface is called the reflected ray.

▼ Answer

True

Question 14.
When all the parallel rays reflected from a plane surface are not parallel, the reflection is known as diffused or irregular reflection.

▼ Answer

True

Fill in the blanks:

Question 1.
The normal makes an angle of …….. with the surface of the mirror.

▼ Answer

90°

Question 2.
When beam of light stricking a smooth surface, gets reflected in one direction, it is called …….. reflected.

▼ Answer

regular

Question 3.
The image which cannot be taken on a screen is called a …….. image.

▼ Answer

virtual

Question 4.
Splitting of white light into its seven constituent colours is called ……

▼ Answer

dispersion

Question 5.
When an object is placed between two plane mirrors at 90° to each other, number of images formed will be ……

▼ Answer

three

Question 6.
A person 1 m in front of a plane mirror seems to be away from his image ……..

▼ Answer

2m

Question 7.
If you touch your …….. ear with right hand in front of a plane mirror it will be seen in the mirror that your right ear is touched with ……

▼ Answer

left, left hand

Question 8.
The size of the pupil becomes …….. when you see in dim light.

▼ Answer

large

Question 9.
Night birds have …….. cones than rods in their eyes.

▼ Answer

less

Question 10.
A plane mirror …….. all the light falling on it.

▼ Answer

reflects

Question 11.
According to law of reflection:
Angle of …….. = Angle of ……

▼ Answer

incidence, reflection

Question 12.
…….. script is used by visually challenged people.

▼ Answer

Braille

Question 13.
Kaleidoscope is based on the principle of ……..

▼ Answer

multiple reflection

Question 14.
…….. no. of images are formed in plane mirror at right angle to each other.

▼ Answer

Infinite

Question 15.
The transparent front part of eye is called ……..

▼ Answer

cornea

Question 16.
The size of the …….. is controlled by the iris.

▼ Answer

pupil

Question 17.
The eye lens focuses light on ……

▼ Answer

retina

Question 18.
…….. is the spot at the junction of the optic nerve and the retina where there are no sensory cells.

▼ Answer

Blind spot
