
Q1 Fill in the blanks

- 1 luminous
- 2 convex
- 3 multiple
- 4 Braille
- 5 reflection
- 6 regular
- 7
- 8 dispersion

Q2 choose the correct option

- 1 form of energy which excites the sensation of sight
- 2 when light passes through a prism
- 3 two
- 4 an arrangement of mirror to produce beautiful pattern
- 5 irregular reflection
- 6 incident ray
- 7 seven colour
- 8
- 9 dispersion
- 10 myopia

Q3 true and false

- 1 true
- 2 true
- 3 true
- 4 true
- 5 true

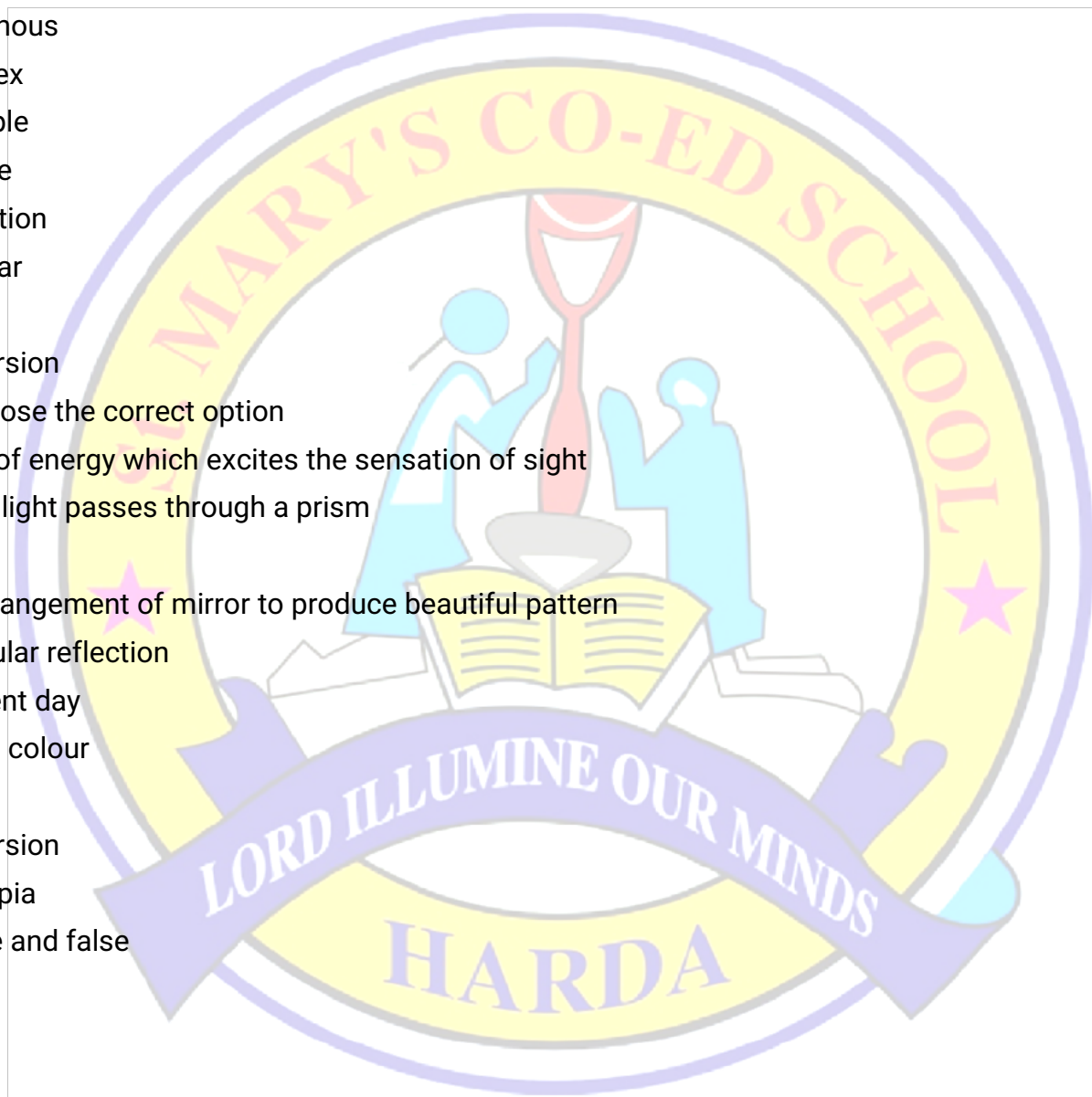
Q4 Answer the following (NCERT exercise)

(A) No we can not see object because there is no reflection

(B) Regular reflection

The reflection which take place from a smooth plane surface where the reflected ray are parallel to each other is known as regular reflection

Diffused reflection



The reflection which take place from the rough surface in which the reflected ray are not parallel to each other is known as diffuse reflection

It is not failure of law of reflection it is due to irregular reflection

F answer

Always

H do by yourself

I .90

J multiple image

Answer the following questions

1 Answer

The reflection of light take place from a reflecting surface according to definitely loss these are known as law of reflection

2 answer

First law

The incident ray the reflected ray and the normal at the point of incidence lie in the same plane

Second law

The angle of incidence is always equal to the angle of reflection

3 answer

The phenomenon due to which the left hand side of an object appears as the right hand side and vice versa in a mirror is called lateral inversion

4 answer

(1) Image form is virtual image it means the image cannot be caught on a screen (2) plane mirror form erect image of object which are placed in front of it (3)the size of image is equal to the size of the object (4)distance between the object and mirror and the image and mirror are the same(5) image is laterally inverted it means left hand side of object appear as right hand side of the image and vice versa

5answer

Uses of plane mirror are

(1)they are used as looking glass (2) they are used by Barber to show the customer the back of his head (3)they are used for reflecting the Ray of Sun inside the Solar Cooker (4) they are used for making toy like Kaleidoscope they are used for making reflectec periscope

7 answer

When a Ray of light passes from one transparent medium to another transparent medium for different densities then the Ray of light surface a deviation in its direction the division of direction is called refraction

8 answer

Periscope is another instrument which use the principle of multiple reflection this instrument also need to plane mirror that are place at an angle of 45degree in a vertical tube in the Kaleidoscope the mirror place touching each other but in Periscope they are at a distance from each other the image formed by plane mirror act as the object of the Other mirror the main use of Periscope is the trenches in the war from front lines and in the submarine that remain underwater

9 answer

If a Ray of light it to pass through a Prism it break into 7 colour the splitting of white light into seven colour is called Dispersion of light Rainbow appear in the sky as a result of dispersion of light it ok avention come out after spell of rain immediately after rainfall the atmosphere is Laden with moisture each drop of water act as a Prism mention light pass through the tiny droplets of water split into seven colour violet Indigo blue green yellow orange and red

10answer

Whenever light coming from an object of 10 more than one reflection it leads to the formation of multiple image known as multiple reflection

11 answer Same as NCERT B ANSWER

12answer

Incident ray

The Ray of light which strikes the mirror is known as an incident ray

Normal Ray

An imaginary line drawn perpendicular to the mirror at the point of incidence is known as normal Ray

Angle of incidence

The angle which the incidence re make with the normal is known as the angle of incidence it is generally denoted by i

Angle of reflection

The angle which the reflected ray make with the normal is known as angle of reflection it is generally denoted by r

13 answer

Several images

14 answer

Polished surface contain bags a smooth layer get deposit on surface of shoes which act as smooth surface leading to regular reflection

12answer

Structure of eye

It is spherical ball of about 2.5 diameter the outer part of eye has 3 layer

Sclera

The outermost covering of eye is made up of muscle tissue this muscle help in movement of eyeball

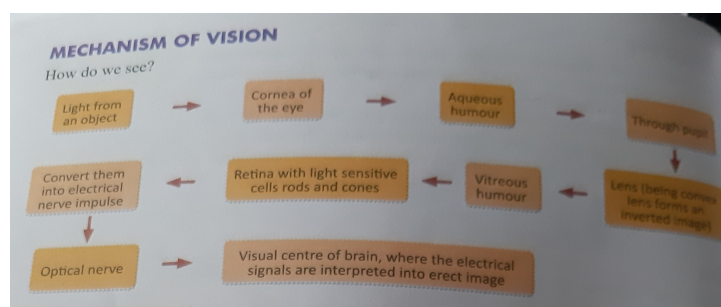
Chloride

It is middle layer of Firewall and its lies between error and retina it is richly supplied by the blood through a network of blood vessels its function is to supply oxygen and nutrients to retina

Retina

It is innermost layer of iBall it is made up of neurosensory cell called rods and cones it is light-sensitive layer as it has several thousands of nerve cell sensation felt by this nerve cell are then transmitted to the Brain through a sensory nerve cal optic nerve the brain interpret this nerve impulse as the image the front part of retina holder by convex crystalline and transparent lens situated just behind the Iris this lens is held in its position with the help of ciliary muscle rod sale of retina sensitive to dim light and enable us to see one in diffuse light Council of retina not only sensitive to bright light but also help in distinguishing colour when we see objects that are near to our eye this lens become thicker such that its focus is exactly on the retina and sharp images form on it similarly

when we see objects that are distance lens become thinner and again the focus of lens fall on the retina so that a sharp image of object is formed on the retina



15answer same as 9

HOTS

1 image focus on the retina nerve cell processes the information and sent it by electrical impulse through out optic nerve due to retina damage detechment happens

2

Red colour is scattered the least by air molecule

