

# **PHYSICS**

# **BOOKS - MBD**

# **LIGHT**

**Example** 

**1.** Suppose you are in a dark room. Can you see objects in the room? Can you see objects outside the room? Explain.

**2.** Differentiate between regular and diffused reflection. Does diffused reflection mean the failure of the laws of reflection?



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**3.** Mention against each of the following whether regular or diffused reflection will take place when a beam of light stricks. Justify your

answer in each case.

Polished wooden table



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**4.** Mention against the following whether regular or diffused reflection will take place when a beam of light stricks. Justify your answer.

Chalk powder



**5.** Mention against the following whether regular or diffused reflection will take place when a beam of light stricks. Justify your answer.

Cardboard surface



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**6.** Mention against the following whether regular or diffused reflection will take place when a beam of light stricks. Justify your

answer.

Marble floor with water spread over it.



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**7.** Mention against the following whether regular or diffused reflection will take place when a beam of light stricks. Justify your answer.

Mirror



**8.** Mention against following whether regular or diffused reflection will take place when a beam of light stricks. Justify your answer.

Piece of paper



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9. State the laws of reflection.



**10.** Describe an activity to show that the incident ray, the reflected ray, normal, the point of incidence lie in the same plane.



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11. Fill in the blanks

A person 1 m in front of a mirror seems to be

...... m away from his image.



## 12. Fill in the blanks

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



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#### 13. Fill in the blanks

The size of pupil becomes...... when you in dim light.



14. Fill in the blanks

Night birds have .....cones than rods in their eyes.



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**15.** Angle of incidence is equal to angle of reflection

A. Always

**B.** Sometimes

- C. Under special conditions
- D. Never

#### **Answer:**



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- **16.** Image formed by a plane mirror is
  - A. virtual, behind the mirror and enlarged
  - B. virtual, behind the mirror and of same

size as the object.

C. real at the surface of mirror and enlarged.

D. real, behind the mirror and of same size as the object.

## **Answer:**



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**17.** Describe the construction of a Kaleiodeoscope.



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18. Draw a labelled sketch of the human eye.



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**19.** Gurmit wanted to perform activity 16.8 using a laser torch . Her teacher advised her not do so. Can you explain the basis of the teacher's advice?



20. Explain how can you take care of your eyes.

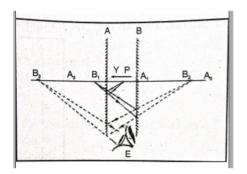


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**21.** What is the angle of incidence of a ray if the reflected ray is at an angle of  $90^{\circ}$  to the incident ray?



**22.** How many images of a candle will be formed if it placed between two parallel mirrors separated by 40 cm?





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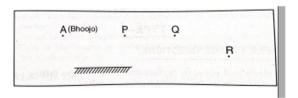
**23.** Two mirrors meet at right angles. A ray of light is incident on one at an angle of  $30^{\circ}$  as

shown is figure. Draw the reflected ray from the second mirror.



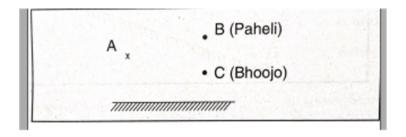


**24.** Bhooja stands at A just on the side of a plane mirror as shown in figure. Can he see himself in the mirror? Also can be see image of objects situated at P, Q and R?



**25.** Find out the position of image of an object situated at A in plane mirror.

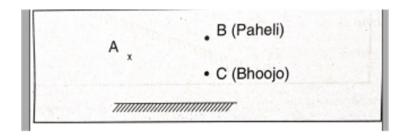
Can Paheli at B see this image?





**26.** Find out the position of image of an object situated at A in plane mirror.

Can Paheli at B see this image?





**27.** Find out the position of image of an object situated at A in plane mirror.

When Paheli moves from B to C where does the image of A move?





**28.** The plane and polished surface that returns lightr falling on it in the same direction or any other direction is called:

A. Lens

B. Prisom

- C. Mirror
- D. Kaleidoscope

#### **Answer:**



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**29.** How many colours are present in white sunlight?

- A. 2
- B. 5

C. 7

D. 3

## **Answer:**



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**30.** What is the most convenient distance for reading by a normal eye?

A. 10 cm

B. 25 cm

C. 15 cm

D. 20 cm

## **Answer:**



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**31.** When you see in dim light the size of your pupil becomes:

A. Small

B. Large

- C. Neither small nor large
- D. Very small

#### **Answer:**



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**32.** The Phenomena of splitting of light into its constituent colours is called

- A. Reflection
- B. Refraction

- C. Dispersion
- D. Combination

#### **Answer:**



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# **33.** The eye lenses focuses:

- A. On Cornea
- B. On Retina
- C. On Iris

D. None of these **Answer: Watch Video Solution** 34. Can any one see in the dark? **Watch Video Solution** 





35. To see an object-



36. Name any two Luminous bodies.



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**37.** Is moon a Luminous or non-luminous body

?



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38. Where is a reflection seen?



39. Which surface can act as a mirror?



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**40.** If you are standing in front of a mirror and observing your own image what is the relation between the distance of the object and the image from the mirrorr?



**41.** What is the angle of reflection, when a ray of light is incident normally on a plane mirror?



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**42.** Name two objects which split white light into manyt colours.



**43.** Name the seven colours of light.



**44.** Give one example of dispersion of light in nature.



**45.** Is focal length of eye lens fixed? If not, why?



**46.** What is the function of sclerotic in human eye.?



**47.** What is the function of ciliary muscles in human eye?



**48.** What is the function of rods on the retina?

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49. What are cone cells?



**50.** What is basic cause of colour blindness?



51. Why cats and bats are able to see at night?



**52.** At what rate the images pass one after the other on a cinema screen?



**53.** What type of photosensitive cells are present on the retina of the eye?



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**54.** Name one device that can be used by short statured person to see over the head of a crowd.



**55.** Find out the etters of English alphabet or any another language known to you in which the image formed in a plane mirror appears exactly like the letter itself.



**56.** What are luminous and non-luminous bodies? Give examples.



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**57.** How do we see objects?



**58.** Give the conditions necessary for seeing an object.



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**59.** What is a virtual image? Give one situation where a virtual image is formed.



**60.** What do you understand by lateral inversion?



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**61.** State the laws of reflection.



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**62.** What is diffused reflection and regular reflection?



**63.** what is reflection of light?



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**64.** Define

Reflected Ray



65. Define

Angle of reflection



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**66.** If incident ray strikes the mirror at  $90^{\circ}$  , what will be the angle of reflection?



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**67.** Define the etrm 'Dispersion of light'.



**68.** While passing through a prism, why does the white light split into seven colours.



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**69.** What is myopia?



**70.** What is hypermetropia?



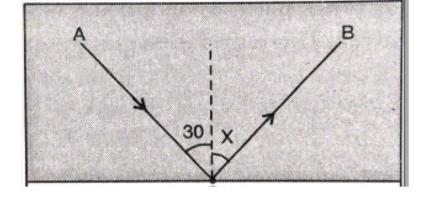
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71. Explain in short perception of colour.



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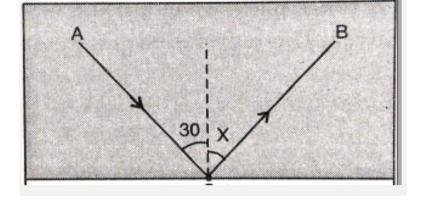
**72.** The following picture shows the reflection of light:



Name4 the ray AO



**73.** The following picture shows the reflection of light:



Name the ray OB



**74.** Differentiate between a real image and a virtual image.



**75.** State the characteristis of image formed by a plane mirror.

