



# PHYSICS

## NCERT - NCERT Physics(Hinglish)

### LIGHT

#### Exercise

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



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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 whether regular or diffused reflection will take place when a beam of light strikes. Justify your

answer in each case.

Polished wooden table



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4. Mention against each of the whether regular or diffused reflection will take place when a beam of light strikes. Justify your answer in each case.

Chalk powder



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5. Mention against each of the whether regular or diffused reflection will take place when a beam of light strikes. Justify your answer in each case.

Cardboard surface



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

answer in each case.

Marble floor with water spread over it



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7. Mention against each of the whether regular or diffused reflection will take place when a beam of light strikes. Justify your answer in each case.

Mirror



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8. Mention against each of the whether regular or diffused reflection will take place when a beam of light strikes. Justify your answer in each case.

Piece of paper



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9. State the laws of reflection.



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



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**11.** Fill in the blank in

A person 1 m in front of a plane mirror seems to be \_\_\_\_\_m away from his image.



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**12.** Fill in the blank in

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



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**13.** Fill in the blank in

The size of the pupil becomes \_\_\_\_\_ when you see in dim light.







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**14.** Fill in the blank in

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



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

A. Always

B. Sometimes

C. Under special conditions

D. Never

**Answer: A**



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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 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**



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



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**18.** Draw a labelled diagram of eye .



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**19.** Gurmit wanted to perform Activity 16.8 using a laser torch. Her teacher advised her

not to do so. Can you explain the basis of the teacher's advice?



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**20.** Explain how you can 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?

A.  $90^\circ$

B.  $75^\circ$

C.  $45^\circ$

D. None of the above

**Answer: C**



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



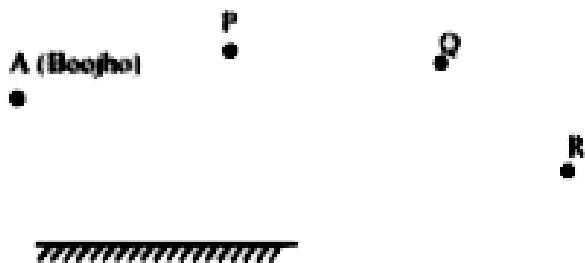
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23. Two mirrors meet at right angles. A ray of light is incident on one at an angle of  $30^\circ$  as shown in. Draw the reflected ray from the second mirror.



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24. Boojho stands at A just on the side of a plane mirror as shown in Fig. 16.20. Can he see himself in the mirror? Also can he see the image of objects situated at P, Q and R?



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



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26. Can Paheli at B see this image?



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27. Can Boojho at C see this image?

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

A 

• B (Paheli)

• C (Boojho)



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