



### **PHYSICS**

## BOOKS - NAVNEET PHYSICS (MARATHI ENGLISH)

# LIGHT AND THE FORMATION OF SHADOWS

**Question Bank** 

1. Can we see anything in total darkness?



2. What helps us to see the objects around us



?

**3.** What does the light in each one of the picture originate from ?



**4.** In which objects do we see a reflection?





**Watch Video Solution** 

**5.** What is the difference between an object and its reflection? What causes the difference?





**6.** Stand in front of a plane mirror and look at your image in it.

Raise your right hand. Which hand of the mirror image is raised?



**Watch Video Solution** 

**7.** Stand in front of a plane mirror and look at your image in it.

What change do you see in the image if you

decrease or increase your distance from the mirror?



**Watch Video Solution** 

**8.** Stand in front of a plane mirror and look at your image in it.

Is there any difference between your height and height of the mirror image?

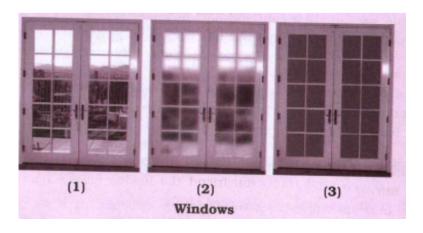


**9.** Why is the image on the diaphragm of the pinhole camera inverted ?

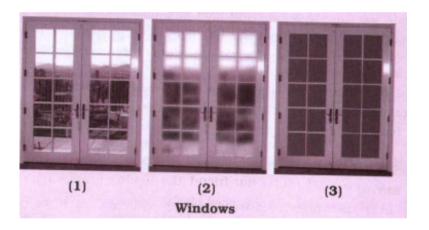


**Watch Video Solution** 

**10.** What difference do you notice on looking through the windows in the picture ? What causes the difference ?



**11.** The picture show transparent, opaque, translucent window panes. Spot them.





**12.** Take an electric torch. Flash its light on a wall. Now make your friend stand in between the torch and the wall. What happens?



**Watch Video Solution** 

13. Ask your friend to stand at a certain distance from you in a big room and obtain the shadow of your friend on the wall with the help of a torch. Now carry out the following actions. Observe and make a note of the

changes taking place in the shadows.

Send the friend closer to the wall.



**Watch Video Solution** 

14. Ask your friend to stand at a certain distance from you in a big room and obtain the shadow of your friend on the wall with the help of a torch. Now carry out the following actions. Observe and make a note of the changes taking place in the shadows.

Ask the friend to come towards you.

15. Ask your friend to stand at a certain distance from you in a big room and obtain the shadow of your friend on the wall with the help of a torch. Now carry out the following actions. Observe and make a note of the changes taking place in the shadows.

Next, you move further away from him and towards him again.



16. Ask your friend to stand at a certain distance from you in a big room and obtain the shadow of your friend on the wall with the help of a torch. Now carry out the following actions. Observe and make a note of the changes taking place in the shadows.

Hold the torch high and then low.



17. Ask your friend to stand at a certain distance from you in a big room and obtain

the shadow of your friend on the wall with the help of a torch. Now carry out the following actions. Observe and make a note of the changes taking place in the shadows.

Go toward the left and then to the right of the friend.

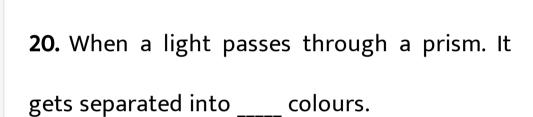


**18.** A \_\_\_\_ is a natural source of light.



**19.** A \_\_\_\_ is an artificial source of light.

Watch Video Solution





**21.** The image obtained in the pinhole camera is



**22.** A shadow is formed when an \_\_\_\_ object comes in the way of light.



**23.** When a \_\_\_\_ object comes in the way of light, light passes \_\_\_\_ it.



**24.** Write whether the following objects are luminous or non-luminous.



**View Text Solution** 

#### 25. Match the columns:

Column 'A'	Column 'B'
(1) Mirror	(a) Non-luminous
(2) Firefly	(b) Inverted image
(3) Pinhole camera	(c) Reflection
(4) Moon	(d) Luminous



**26.** Give meanings of / Write definitions :

Luminous objects:



**Watch Video Solution** 

27. Give meanings of / Write definitions:

Non-luminous objects:



28. Give meanings of / Write definitions:

**Linear Propagation:** 



**Watch Video Solution** 

**29.** Give meanings of / Write definitions :

Reflection of light:



**30.** Give meanings of / Write definitions :

Transparent object :



**Watch Video Solution** 

**31.** Give meanings of / Write definitions :

Translucent object :



32. Give meanings of / Write definitions:

Opaque object:



**Watch Video Solution** 

#### 33. Find the odd one out:

A. Fireflies

B. Crows

C. Angler fish

D. Honey mushroom

#### **Answer: B**



**Watch Video Solution** 

#### **34.** Find the odd one out:

A. Moon

B. Mars

C. Sun

D. Earth

**Answer: C** 

35. Find the odd one out:

A. Granite cladding of wall

B. Mirror

C. Clean and still water

D. Cardboard

**Answer: D** 



36. Find the odd one out:

A. Flame of the candle

**B.** Fireflies

C. Lantern

D. Electric bulb

**Answer: B** 



How do we come to know that light travels in a straight line ?



**Watch Video Solution** 

38. Write the answer to the following:

Due to which property of a surface is image

formed?



Describe the type of image seen in the mirror.



**Watch Video Solution** 

**40.** Write the answer to the following:

Describe the type of image seen in the mirror.



What is Newton's disc? What do you come to know from Newton's disc?



**Watch Video Solution** 

**42.** What are the condition necessary for the formation of a rainbow?



What are the factors on which the formation of a shadow depend ?



**Watch Video Solution** 

44. Write the answer to the following:

What is shadow?



**45.** Use your brain power!

How will you light up a dark room using reflected light ?



**Watch Video Solution** 

46. Use your brain power!

Try to start the TV by operating the remote control from behind it.



**47.** Make a list of some luminous objects and substances and classify them into natural and artificial sources of light.



**Watch Video Solution** 

**48.** Compare the objects in your environment with the shadows they form.



**49.** On which surfaces can you see your reflection?



Watch Video Solution

**50.** Which characteristics of surfaces are useful while forming an image ?



**Watch Video Solution** 

**51.** Why do we see moonlight?



**52.** When is National Science Day celebrated?

Why?

