

# **PHYSICS**

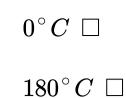
# **BOOKS - JNAN PUBLICATION**

# **PHYSICAL ENVIRONMENT (LIGHT)**

Example

**1.** If ray of light reflects perpendicular on a mirror incident angle becomes\_\_\_\_\_

 $90^{\circ}C$ 



 $80^C$ 



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**2.** If ray of light falls on a mirror at  $30^{\circ}$  angle the reflected angle becomes\_\_\_\_\_

A.  $30^{\circ}\,C$ 

B.  $90^{\circ}C$ 

 $\mathsf{C}.\,0^{\circ}C$ 

D.  $60^{\circ}\,C$ 

### **Answer:**



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# 3. Virutal image\_\_\_\_

A. can be seen by eyes and reflected on screen

B. can not be seen and can not be reflected

on screen

C. can be seen but can not be reflected on screen

D.

## **Answer:**



**4.** Shape of reflection create on plane mirror

A. is of smaller size than the actual object

B. is of larger size than the actual object

C. is same as the object.

D.

#### **Answer:**



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**5.** If incident ray and reflected ray falls perpendicular on each other then reflected angle becomes\_\_\_\_

- A.  $90^{\circ}\,C$
- B.  $45^{\circ}\,C$
- C.  $60^{\circ}C$
- D.  $180^{\circ}\,C$

### **Answer:**



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**6.** White light is mixer of how many colours\_\_\_\_

- A. 7 B. 2
  - C. 4
  - D. 10

# **Answer:**



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7. Which of the following series does not have lateral inversion

A,B,C

M,N,O

X,A,O



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8. If two plane mirrors are placed at a right angle then reflection number of time object would be

A. 2

B. 3

C. 4

### **Answer:**



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**9.** What are the two marginal of spectrum of visible light?

A. red and violet

B. red and blue

C. violet and blue

D.

### **Answer:**



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10. Spectrum occurs due to

reflection

refraction

dispersion



11. Distance between an object and mirror is 15 cm. If the object is brought 2 cm nearer the mirror then what will be distance between reflection and object

- A. 13cm
- B. 4cm
- C. 26cm
- D. 36cm

### **Answer:**



**12.** Why do we see the sun sometime before sunrise and sometime after sunset?

A. refraction occurs

B. reflection occurs

C. dispersion occurs

D.

#### **Answer:**



**13.** State the conditions of total internal reflection.

A. incidentgt reflected angle

B. incident anglelt reflected angle

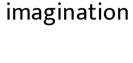
C. incident angle = reflected angle

D.

#### **Answer:**



14. The optical illusion in desert is called\_\_\_\_miragehalucination





15. State whether True or False:-

A real source of light is sun.



Virutal image can be seen by eyes and reflected on screen.



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17. State whether True or False:-

Refractive index of diamond with respect to air is low.



The image formed in a mirror is a virtual image.



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19. State whether True or False:-

Periscopes are used in submarine.



In total internal reflection the image is much brighter.



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**21.** Shape of reflection create on plane mirror



Spectrum occurs due to dispersion.



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23. State whether True or False:-

Convex lens is used in magnifying glass.



An unreal source of light is moon.



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25. State whether True or False:-

Two marginal colours of the spectrum are red and blue.



The angle of refleciton becomes greater than the angle of incidence.



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27. State whether True or False:-

Critical angle of a diamond with respect to air is very high.



**28.** Fill in the blanks:- In reflection angle of incidence and angle of reflection is always\_\_\_\_.



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**29.** Fill in the blanks:- Irregular reflection follows the two rules of \_\_\_\_\_.



**30.** Fill in the blanks:- reflection does not form any image.



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31. Fill in the blanks:- Plane mirror forms image.



**32.** Fill in the blanks:- On a screen of cinema \_\_\_\_\_ image are formed.



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33. Fill in the blanks

An object is 15 cm away from mirror. The reflection formed will be \_\_\_\_\_ distant from mirror.



**34.** Fill in the blanks:- If an object is kept between two parallel mirros\_\_\_\_ images are formed.



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**35.** Fill in the blanks:- If an object is kept between two mirrors which are inclined at right angle\_\_\_\_ images are formed.



**36.** Fill in the blanks:- To form image on cinema screen \_\_\_\_ is used.



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**37.** Fill in the blanks:- Virtual image formed by convex lens is always \_\_\_\_ in respect of the object.



**38.** Fill in the blanks:- \_\_\_\_\_ object does not have any lateral invesion.



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**39.** Fill in the blanks:- In splitting of the white light, \_\_\_\_ light deviates the least.



**40.** Fill in the blanks:- Prism separates the band of colours present in white light, this phenomena is known as \_\_\_\_\_.



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**41.** Fill in the blanks:- A \_\_\_\_\_ is formed by the dispersion of sunlight by tiny drops of water present in the air.



**42.** Fill in the blanks:- To create virutal image by convex lens the object should be kept \_\_\_\_\_ the focus length.



**43.** Fill in the blanks:- Convex lens is used in

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**44.** Fill in the blanks:- Dispersion of white light is done by .



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**45.** Fill in the blanks:- When a ray of light travels from denser medium to rarer, the angle of refraction is \_\_\_\_\_ than the angle of incidence.



**46.** Fill in the blanks:- Velocity of light in water is \_\_\_\_\_.

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47. What is light?



**48.** How much time it takes light to reach from sun to earth?





49. Name a real and unreal source of light.



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50. Name an instrument which is made using the principal of reflection of light.



**51.** In a plane mirror if a ray of light reflects at  $35^{\circ}$  angle then what will be the value of incident angle?



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**52.** If a ray of lights strikes a mirror perpendicularly what will be the value of reflected angle?



**53.** In what kind of surface regular reflection occurs?



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**54.** What is meant when it is said that the critical angle of diamond with respect to air is  $24.4^{\circ}$ ?



55. In internal reflection light reflects from which medium to which medium?



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**56.** Name a natural phenomena which is created due to internal reflection?



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**57.** Define absolute refractive index.

**58.** When light enters a denser medium from a rarer medium how it changes its direction?



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**59.** When light enters a rarer medium from a denser medium how it changes it direction?



**60.** What type of image is created in a plane mirror?



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**61.** What type of reflection occurs on the page of a book?



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**62.** In what kind of reflection image is formed?





**63.** State the conditions of total internal reflection.



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**64.** The critical angle of water is  $49^{\circ}$  - explain the statement.



**65.** What is meant when it is said that the critical angle of diamond with respect to air is  $24.4^{\circ}$ ?



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**66.** What is critical angle?



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**67.** On what factors the value of critical angle depends?



**68.** What is meant by refraction of light?



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**69.** What is real image?



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70. What is virtual image?



71. Write down the laws of refraction.



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72. Write down the laws of refraction.



**73.** What do you understand by total internal reflection?



**74.** Write the properties of real image?



75. Write the properties of virtual image.



**76.** Why does a diamond sparkle with great brilliance?

Or, Why does a diamond cut in the same fashion shine more brightly than a piece of glass?



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**77.** Stars, especially near the horizon, twinkle, but not the planets - explain the reason.



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**78.** Distinguish between real image and virtual image.



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79. Which of the following reflections are real image or virtual image, Give reasons: i) image on cinema screen, ii) image formed on still water of pond, iii) image formed by concave lens.



80. Distinguish between the total internal reflection and reflection from a plane mirror.

