

LIGHT

<1M>

1. Light is a form of _____ radiation.
(A) Electromagnetic. (B) Mechanical. (C) Longitudinal. (D) None of these.
2. The wavelength of visible light is in the range:
(A) 4×10^{-7} m to 8×10^{-7} m. (B) 4×10^7 m to 8×10^7 m.
(C) 4×10^3 m to 8×10^3 m. (D) None of these.
3. An _____ image can be obtained on a screen.
(A) Real. (B) Virtual. (C) Upright. (D) Inverted.
4. According to the laws of reflection:
(A) Angle i = Angle r (B) $\sin i = \sin r$ (C) $\sin i / \sin r = \text{constant}$ (D) All of these.
5. The colour of an object is determined by
(A) The colour of light reflected by it: (B) The colour of light absorbed by it.
(C) The colour of light incident on it only. (D) None of the above.
6. Human eye is one of the most valuable and sensitive organ that:
(A) Enables us to see the wonderful world and colours around us.
(B) Can identify the objects.
(C) Is like a camera.
(D) All of these.
7. The ray of light strikes at the surface of mirror is called:
(A) Reflected ray.
(B) Incident ray.
(C) Normal ray.
(D) None of these.
8. Which of the following does not describe working of the human eye?

- (A) Light enters the eye through a thin membrane called the cornea.
 - (B) Rainbow is formed due to splitting of white light.
 - (C) Iris is a dark muscular diaphragm that controls the size of the pupil for.
 - (D) Regulating the amount of light entering into the eye.
9. Electrical signals generated by light sensitive cells of retina are sent to the brain via:
- (A) Motor nerves.
 - (B) Optic nerves.
 - (C) Sensory nerves.
 - (D) Spinal cord.
10. Least distance of vision for a normal eye is:
- (A) 25 cm.
 - (B) 1 m.
 - (C) 30 cm.
 - (D) Infinity.
11. The eye lens forms an _____ and _____ image of the object on the retina.
- (A) Virtual and erect.
 - (B) Real and inverted.
 - (C) Real and erect.
 - (D) Virtual and erect.
12. Iris contracts the pupil:
- (A) In bright light.
 - (B) To allow less light to enter.
 - (C) In darkness.
 - (D) Only (a) and (b).
13. Colour blindness is the name given to:
- (A) Inability to distinguish between colours.
 - (B) Inability to see anything.
 - (C) Inability to see in dark.
 - (D) Inability to see in bright light.

14. The transparent front part of eye is called:

- (A) Iris.
- (B) Cornea.
- (C) Pupil.
- (D) Cone.

15. Reflection from a rough surface is called:

- (A) Regular reflection.
- (B) Diffused reflection.
- (C) Irregular reflection.
- (D) Only (b) & (c).

16. Reflection from a smooth surface is called:

- (A) Regular reflection.
- (B) Diffused reflection.
- (C) Irregular reflection.
- (D) None of these.

17. If angle of incidence is 30° then angle of reflection will be

- (A) 60°
- (B) 0°
- (C) 30°
- (D) None.

18. If the angle between incident and reflected ray is 50° then find the angle of incidence.

- (A) 50°
- (B) 30°
- (C) 25°
- (D) 100°

19. Splitting of white light on passage through a triangular prism:

- (A) Takes place due to the inclined surfaces.
- (B) Is known as dispersion of light.

- (C) Is into a band of seven colours known as spectrum.
- (D) All of these.
20. What is the angle of incidence of a ray if the reflected ray is at an angle of 90° to the incident ray?
- (A) 50°
- (B) 60°
- (C) 45°
- (D) 90°
21. The image formed by plane mirror is:
- (A) Erect.
- (B) Upside.
- (C) Real.
- (D) All of these.
22. The size of image formed by the plane mirror is.....the size of object.
- (A) smaller than
- (B) bigger than
- (C) equal to
- (D) None.
23. Splitting of white light into seven colours is known as:
- (A) Dispersion.
- (B) Reflection.
- (C) Refraction.
- (D) None of these.
24. Cataract is a condition:
- (A) When the crystalline lens becomes milky and cloudy.
- (B) That may cause partial or complete loss of vision.
- (C) That can be rectified through a cataract surgery.
- (D) All of these.

25.The angle between incident ray and normal is known as:

- (A) angle of reflection.
- (B) angle of incidence.
- (C) angle of refraction.
- (D) None of these.

26.The angle between reflected ray and normal is known as:

- (A) angle of reflection.
- (B) angle of incidence.
- (C) angle of refraction.
- (D) None of these.

27.The line at right angle to the mirror surface at the point of incidence is called:

- (A) Incidence ray.
- (B) Reflected ray.
- (C) Normal.
- (D) None.

28.If an object is placed at a distance of 8 cm in front of a plane mirror, how far its image will form from the mirror?

- (A) 16 cm.
- (B) 8 cm.
- (C) 4 cm.
- (D) 10 cm.

29.If an object is placed at a distance of 10 cm in front of a plane mirror, how far would it be from its image?

- (A) 16 cm.
- (B) 20 cm.
- (C) 14 cm.
- (D) 10 cm.

30.If the distance between the object and its image in a plane mirror is 14.6 cm, how far is the object from the mirror?

- (A) 14.6 cm.

- (B) 7.3 cm.
- (C) 29.2 cm.
- (D) None of these.

31. The image formed in a plane mirror is sideways reversed. This phenomenon is called:

- (A) Lateral inversion.
- (B) Dispersion.
- (C) Splitting.
- (D) Refraction.

32. An object 5 cm high is placed in front of a plane mirror. What is the size of the image formed?

- (A) 2.5 cm.
- (B) 10 cm.
- (C) 5 cm.
- (D) None of these.

33. Which types of cells present on retina respond to the intensity of light?

- (A) Cones.
- (B) Rods.
- (C) Both.
- (D) None.

34. Which types of cells present on retina respond to the colours?

- (A) Cones.
- (B) Rods.
- (C) Both.
- (D) None.

35. A chicken's eye has very few shaped cells.

- (A) Cone.
- (B) Rod.
- (C) Both.
- (D) None.

36. The human eye forms the image of an object at its:
- (A) Cornea.
 - (B) Iris.
 - (C) Pupil.
 - (D) Retina.
37. The part of eye, which is equivalent to the photographic film in a camera is:
- (A) Cornea.
 - (B) Iris.
 - (C) Pupil.
 - (D) Retina.
38. The part, which controls the amount of light entering the eye, is
- (A) Cornea.
 - (B) Iris.
 - (C) Pupil.
 - (D) Retina.
39. What kind of retinal cells are lacking in a person suffering from colour blindness?
- (A) Cone.
 - (B) Rod.
 - (C) Both.
 - (D) None.
40. The image, which can be obtained on a screen is called:
- (A) Real.
 - (B) Virtual.
 - (C) Upside.
 - (D) None.
41. Name the form of energy which enables us to see the objects?
42. What types of waves are light waves?
43. Define a ray of light.

44. Define a beam of light?
45. Give an example of best reflector of light.
46. What type of image is formed in a plane mirror?
47. What type of image is formed on a cinema screen?
48. If an object is placed at a distance of 10 cm in front of a plane mirror, how far would it be from its image?
49. Give any three phenomena shown by light.
50. How can visually challenged persons read and write?
51. What do you mean by reflection of light?
52. How do we see objects?
53. If the incident ray strikes the mirror at 90° , what will be the angle of reflection?
54. If angle of incidence is 30° then what will be the value of angle of reflection?
55. Name the instrument based on multiple reflection used to create new designs.
56. Name one means of communication provided by light.
57. State the laws of reflection.
58. Write the names of important parts of eye.
59. A celestial body that revolves around a planet is known as _____.
60. Shooting stars are actually not _____.
- <2M>
61. Name two types of sources of light.
62. Define dispersion of light.
63. What is blind point?
- <3M>
64. Why the word AMBULANCE is written as its mirror image in front of the hospital vans?
65. What do you mean by lateral inversion?
66. Draw a neat and labeled diagram of human eye.

67. Why is it important to take care of our eyes? Mention some activities that may cause damage to our eyes.

68. Write the functions of the following:

- (a) Optic nerves.
- (b) Retina.
- (c) Cornea.

69. What do you mean by multiple reflection?

70. What is the angle of incidence of a ray if the reflected ray is at an angle of 90° to the incident ray?

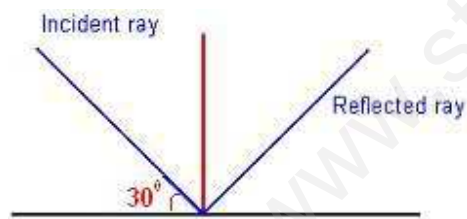
71. How many images of a candle will be formed if it is placed between two parallel plane mirrors separated by 40 cm?

72. 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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73. Define regular and irregular reflection with the help of diagrams.

74. What are the two laws of reflection? Calculate angle of incidence and angle of reflection from the given diagram.



75. What are the characteristics of the image formed by a plane mirror? How is the position of image related to the position of the object?