

## Light, Shadow and Reflection

1. Which one is a transparent object?
  - a. Stone
  - b. Reading glass
  - c. Wax paper
  - d. Dense fog
2. Light is a form of
  - a. Energy
  - b. Power
  - c. Mass
  - d. Length
3. Which of the following will not form circular shadow
  - a. A circular disk
  - b. Shoe box
  - c. Ice-cream cone
  - d. A ball
4. Shadow is formed by
  - a. Transparent object
  - b. Translucent object
  - c. Opaque object
  - d. All of these.
5. Which of the following is not a luminous object
  - a. Sun
  - b. Burning gas lantern
  - c. Glow worm
  - d. Unlit candle
6. Lunar eclipse occurs on
  - a. Full moon night
  - b. New moon night
  - c. Every night
  - d. Half moon night

7. Which is a natural luminous body?
  - a. Moon
  - b. Sun
  - c. Burning candle
  - d. Burning lamp
8. Which one is an opaque object?
  - a. Thick glass pan
  - b. Cardboard
  - c. Butter paper
  - d. Thin plastic sheet.
9. If the Sun is above your head, the shadow formed would be
  - a. Shortest
  - b. Longest
  - c. Absent
  - d. Sometimes short, some time long.
10. From a source light travels as rays which are
  - a. Parallel
  - b. Convergent
  - c. Divergent
  - d. Diffused
11. The shape of shadow depends on
  - a. The size of the source of light
  - b. The shape of the object
  - c. The position of the source of light
  - d. All of the above.
12. In a plane mirror image formed is
  - a. Real and inverted
  - b. Virtual and erect
  - c. Real and erect
  - d. Virtual and inverted

13. A number of rays from different direction assemble at point are called

- a. Divergent rays
- b. Convergent rays
- c. Parallel rays
- d. Intersecting rays.

14. Shadow is formed due to

- a. Rectilinear propagation of light.
- b. Parallel propagation of light.
- c. Passing of light through object
- d. All of these.

15. In solar eclipse moon is between

- a. Sun and Earth
- b. Sun and Venus
- c. Earth and Venus
- d. Earth and stars

16. If you stand before a plane mirror, your left hand appears right. This phenomenon is

- a. Reflection of light
- b. Lateral inversion of light
- c. Shadow formation
- d. Diffusion of light.

17. Match the following

Column A

- a. Moon
- b. Sun
- c. Brick
- d. Mirror
- e. Tracing paper
- f. A luminous body
- g. A transparent object
- h. A translucent object
- i. An opaque object
- j. A non- luminous body

Column B

- i. Translucent
- ii. Opaque
- iii. Reflecting surface
- iv. Luminous
- v. Non-luminous
- vi. Moon
- vii. Brick
- viii. Star
- ix. Clear water
- x. Thick windows glass pane

18. Fill in the blanks with suitable word.

- a. ----- object do not cast any shadow.
- b. Moon is a ----- object.
- c. Shadows give us information about the ----- of the object.
- d. Solar and Lunar eclipse are examples of ----- formation in nature.
- e. A ----- changes the direction of light that falls on it.
- f. An object which does not emit light is called ----- .
- g. An object which allows all the light falling on it to pass through is called -----.
- h. ----- mirror are used in making periscope.
- i. Our shadow is ----- at noon.
- j. In plane mirror image are of ----- size.

19. What is eclipse?

20. State two effects of rectilinear propagation of light.

21. Three identical towels of green, blue and red colour are hung on a cloth line in the sun. What would be the colour of shadows of these towels?

22. Give one word/two words to replace the statement.

- a. An object which allows part of light falling on it to pass through.
- b. An object which gives out own light.
- c. An object which does not give out own light.
- d. A celestial body that reflects the light.

23. Write T for true and F for false statements.

- a. Tube-light is a natural luminous body.
- b. Stars reflect the sunlight.
- c. During solar eclipse moon comes between earth and sun.
- d. Rainbow is formed due to shadow formation.
- e. Jugnoo (glow worm) is a luminous body.

24. Is air around us always transparent? Discuss.

25. List the conditions for shadow formation.

26. What is reflection of light? Write its two types?

27. Classify the following as luminous and non-luminous body.

Star, Sun, Moon, Tube-light, Mirror, Bulb, Planets, glass, Polished table top, Plastic.

28. Write T for true and F for false statements.
- Light is a form of energy which can not be seen.
  - The image formed by pin-hole camera is inverted.
  - We see the moon because it is a luminous body.
  - Colour of shadow depends on colour of the object.
  - Plane mirror is used in periscope.
29. What happen when light strikes a transparent body like glass?
30. Distinguish between regular and irregular reflection.
31. How and when does a solar eclipse occur?
32. How much distance light will cover in one minute?
33. When does a lunar eclipse occur?
34. Distinguish between real and virtual image,
35. What is lateral inversion?
36. Classify the following as transparent, translucent and opaque object.

Brick, butter paper, air, cardboard, metals, book, smoked glass, water, cellophane paper.

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