

# PRACTICE PAPER

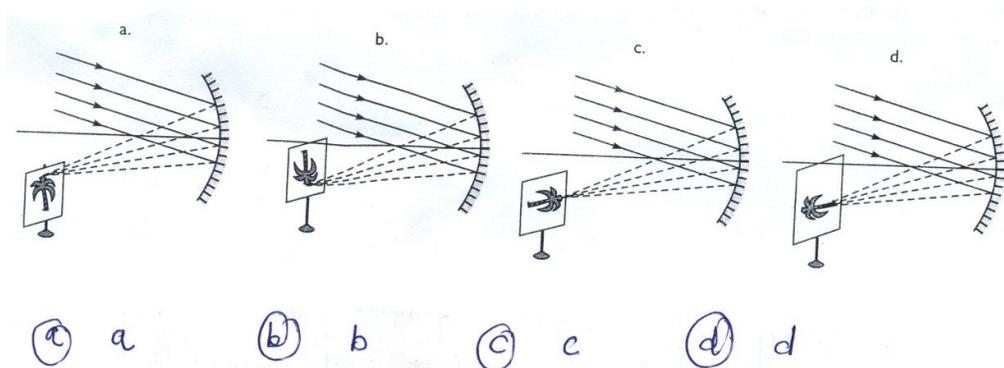
Subject – Physics

Class - X

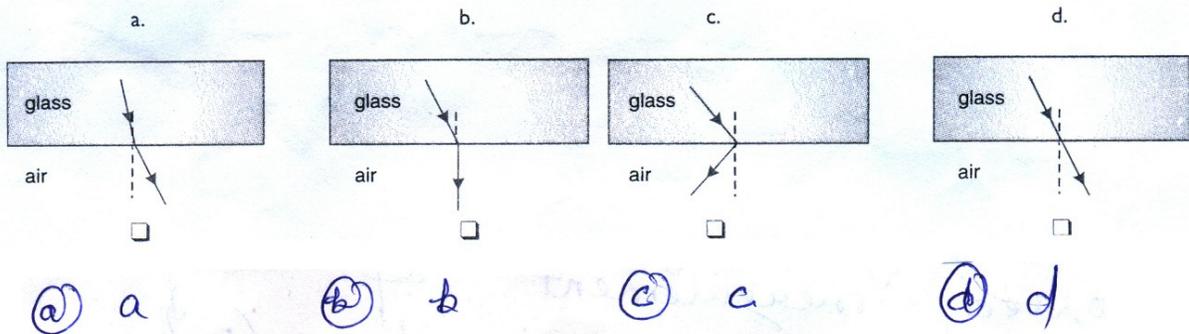
1. State any four characteristics of the image of an object formed by a plane mirror. (2)
2. A ray of light travelling in air enters obliquely into water. Does the light ray bend towards or away from the normal? Why? Draw a ray diagram to show the refraction of light in this situation. (3)
3. a. What is meant by the power of accommodation of an eye? (3)  
b. A person with a myopic eye cannot see objects beyond 1.2 m directly. What should be the type of the corrective lens used? What would be its power?
4. a. What is meant by power of a lens? (5)  
b. State & define the S.I unit of power of a lens.  
c. A convex lens of focal length 25cm and a concave lens of focal length 10cm are placed in close contact with each other. Calculate the lens power of this combination.
5. Give reasons for the following:- (5)
  - a) Colour of the sky is blue.
  - b) The sun can be seen about 2 minutes before actual sunrise.
  - c) We cannot see an object clearly if it is placed very close to the eye.
  - d) What is presbyopia? Write two causes of this defect.

## Section – B

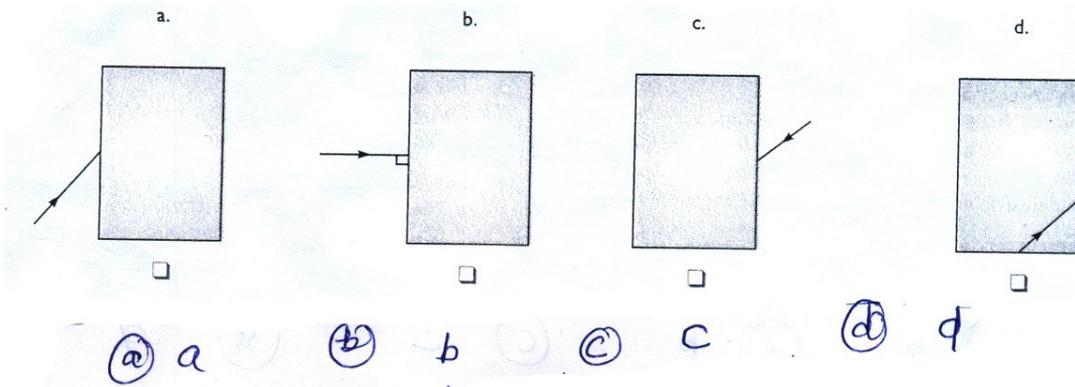
6. A small electric lamp placed at the focus of a convex lens produces a (1)
  - a) Convergent beam of light.
  - b) Parallel beam of light.
  - c) Diffused beam of light.
  - d) Divergent beam of light.
7. Parallel rays, from the top of a distant tree, incident on a concave mirror, form an image on the screen. Which of the given diagram correctly shows the formation of image of the tree? (1)



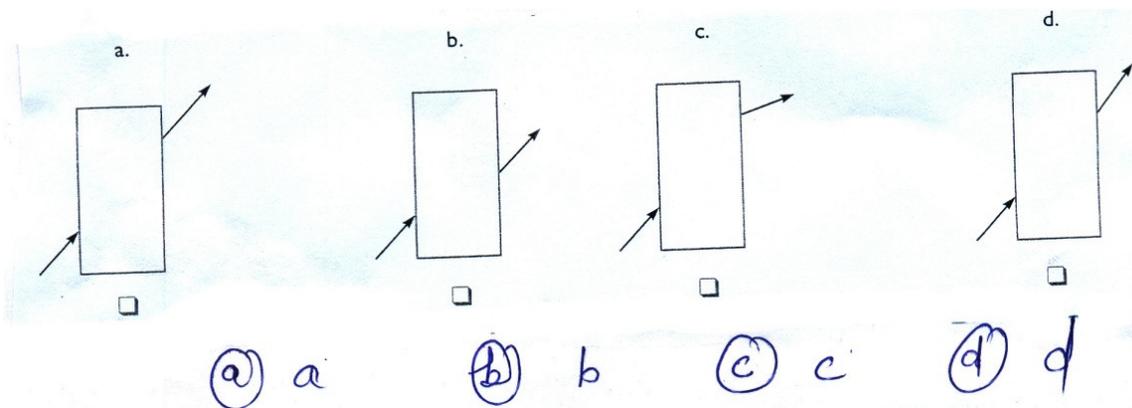
8. To find the focal length of a concave mirror, Rahul focuses a distant object with the mirror. The chosen object should be:- (1)
- a. A tree.      b. A building      c. Window      d. The Sun
9. An object placed at a distance of 10cm from a concave mirror produced an infinitely large image at the infinity. The focal length of the concave mirror is - (1)
- a) Infinity.      b) 5 cm      c) 20 cm      d) 10 cm
10. Four students study the path of a ray of light from glass to air and trace the following. Which is the most correct? (1)



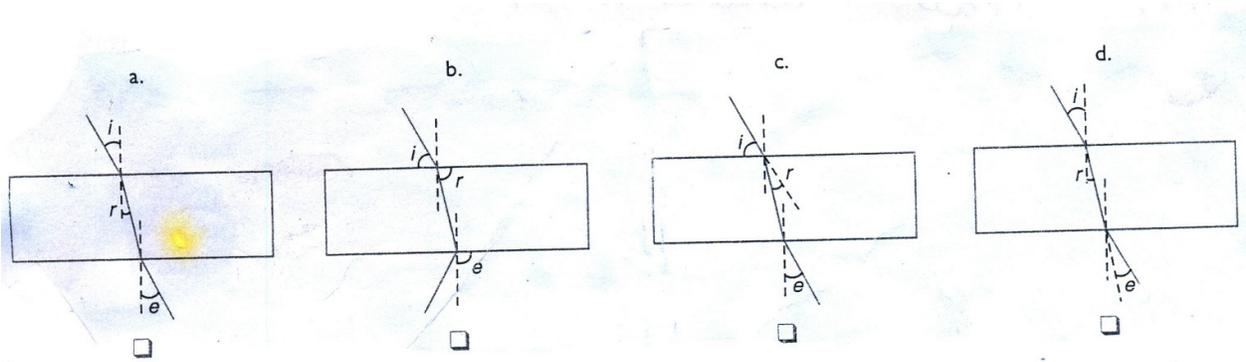
11. In which of the following, will ray of light pass through the slab undeviated? (1)



12. Four students show the following traces of the path of a ray of light passing through a rectangular glass slab. The trace most likely to be correct is that of student. (1)



13. In an experimental to the trace the path of a ray of light passing through a rectangular glass slab, the correct measurement of angles of incidence ( $i$ ), refraction ( $r$ ) and emergence ( $e$ ) is shown in diagram.



(a) a      (b) b      (c) c      (d) d

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