AMK Resource World
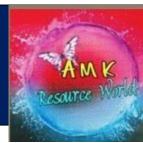# SSLC – Daily Practice Papers

LIGHT REFLECTION & REFRACTION

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SCIENCE PRACTICE PAPER 07

Total Marks : 20

I. Choose the Most Appropriate Answers   **3 x 1 = 3**

1. A 10 mm long awl pin is placed vertically in front of a concave mirror. A 5 mm long image of the awl pin is formed at 30 cm in front of the mirror. The focal length of this mirror is
   a. -30 cm   b. -20 cm   c. -40cm   d. -60 cm

2. A full length image of a distant tall building can definitely be seen by using
   a. a concave mirror   c. a plane mirror
   b. a convex mirror   d. both concave & plane mirror

3. The mirror used as rear-view mirror in vehicles
   a. convex mirror   c. cylindrical mirror
   b. plane mirror   d. concave mirror

II. Answer the following questions   **2 x 1 = 2**

4. Draw the ray diagram in to show the position and nature of the image formed when the object is placed at the centre of curvature of a concave mirror.

5. Which kind of mirrors are used in the headlights of a motor-car and why?

III. Answer the Following questions   **4 x 2 = 8**

6. Why does a light ray incident on a rectangular glass slab immersed in any medium emerges parallel to itself? Explain using a diagram..

7. Explain with the help of a diagram, why a pencil partly immersed in water appears to be bent at the water surface

8. Draw ray diagrams to represent the nature, position and relative size of the image formed by a convex lens for the object placed at $2F_1$ between F_1 and the optical centre O of lens

9. Define power of a lens? One student uses a lens of focal length 50 cm and another of -50 cm. What is the nature of the lens and its power used by each of them?

IV. Answer the following questions   **1 x 3 = 3**

10. The image of an object placed at 60 cm in front of a lens is obtained on a screen at a distance of 120 cm from it. Find the focal length of the lens. What would be the height of the image if the object is 5 cm high?.

V. Answer the following questions   **1 x 4 = 4**

11. How far should an object be placed from a .convex lens of focal length 20 cm to obtain its image at a distance of 30 cm from the lens? What will be the height of the image if the object is 6 cm tall?