

Solution of the day/Oct-27, 2018

6th Class

- **Mathematics:** Ans: (B)
- **Physics:** Ans: (D)
- **Chemistry:** Ans: (B)
- **Biology:** Ans: (B)

7th Class

- **Mathematics:** Ans: (A)
- **Physics:** Ans: a-q,s; b-q,r; c-p,s,t; d-p,r,t.
- **Chemistry:** Ans: True
- **Biology:** Ans: (B)

8th class

- **Mathematics:** Ans: (B)
- **Physics:** Sol: Since the image is obtained on the screen, it is real and inverted w.r.t. object.

Here $u = -27$ cm; $f = -\frac{R}{2} = -\frac{36}{2} = -18$ cm; $h_1 = 2.5$ cm

Now $\frac{1}{u} + \frac{1}{v} = \frac{1}{f}$ or $\frac{1}{-27} + \frac{1}{v} = \frac{1}{-18} \therefore v = -54$ cm

Hence the screen should be placed 54 cm from the mirror on the same side as the object.

Magnification, $m = -\frac{v}{u} = -\left(\frac{-54}{-27}\right) = -2$ or $\frac{h_2}{h_1} = -2 \therefore h_2 = -2 \times h_1 = -2 \times 2.5 = -5$ cm

The image formed is inverted w.r.t. object and 2 times as high as the object.

- **Chemistry:** Ans: (A)
- **Biology:** Ans: (B)

9th Class

- **Mathematics:** Ans: (B)
- **Physics:** Ans: Principal focus
- **Chemistry:** Ans: (A)
- **Biology:** Ans: (A)

10th class

- **Mathematics:** Ans: (C)
- **Physics:** Ans: (B)
- **Chemistry:** Ans: (A)
- **Biology:** Ans: (C)
- **Reasoning :**
Ans: (C) Here, all except brass are metals, while brass is an alloy.