Examrace

Physics MCQs for Competitive Exams Part 11

Question:

It is possible to observe total internal reflection when light travels from

1. Air to water
2. Air to glass
3. Water to glass
4. Glass to water

Question:

A concave lens has focal length f . A real object placed at a distance fin front of the lens from the pole produces an image

1. $At\ infinity$
2. $At f$
3. $At \frac{f}{2}$
4. $At \frac{2}{f}$

Question:

The image formed by a plane mirror is

1. Real and same size as the object.
2. Virtual, same size as the object.
3. Real and magnified.
4. None of these.

Question:

36 The limit of resolution of the eye is one minute at a distance x from the eye. Two persons stand with a lateral separation of 3cms. To see the two persons just resolved by the naked eye. X should be about

1. $20\ km$

2. $15\ km$

3. $10\ km$

4. $30\ km$

Question:

In the displacement method of measuring the focal length of a convex lens, the length of the images in the two positions of the lens between the object and the screen is $9\ cm$ *and* $4\ cm$ respectively. The length of the object is

1. $6.25\ cm$

2. $1.5\ cm$

3. $6\ cm$

4. $36\ cm$

Question:

The refracting angle of a prism is a and the refractive index of the material of the prism $cot\frac{A}{2}$, the angle of minimum deviation is

1. $180 - A$

2. $180 - 3A$

3. $90 - A$

4. $180 - 2A$

Question:

A ray of light travels from vacuum into a medium of refractive index n. The angle of incidence is found to be twice the angle of refraction. The angle of incidence is

1. $cos - 1 \times \frac{n}{2}$

2. $2cos - 1 \times \frac{n}{2}$

3. $2sin - 1 \times n$

4. $2sin - 1 \times \frac{n}{2}$

Question:

An object placed at distance ‘a’ from the focus of a convex lens forms its real image at a distance ‘b’ from the focus. The focal length of the mirror is

1. ab
2. $a + b$
3. $a + b^2$
4. $a - b$