

Physics - FSC Part 1 Physics Chapter 10 Short Questions Preparation

Q1. Write any two uses of spectrometer.

Ans 1: It is used to study spectra from different sources of light. It is used to determine the wavelength of light.

Q2. When object lie within the principle focus of convex lens what is the nature of image and where it is formed?

Ans 1: When object lie within the principle focus of convex lens, then image will be virtual, erect and magnified and will be formed at least distance of distinct vision.

Q3. A magnifying glass gives a five time enlarged image at a distance of 25 cm from the lens. What will be the focal length of the lens?

Ans 1:

Q4. An astronomical telescope of long focal length and large aperture is considered to be a good telescope. Why?

Ans 1: Objective of long focal length and large aperture is used to collect a great amount of light from the astronomical objects.

Q5. Define Snell's law and write its mathematical form.

Ans 1: Snell's law states that the ratio of the sines of the angles of incidence and refraction of a wave are constant when it passes between two given media. OR Snell's Law is a formula used to describe the relationship between the angles of incidence and refraction, when referring to light or other waves passing through a boundary between two different isotropic media such as water, glass, or air.

Q6. Find the magnifying power of a convex lens of 10 cm focal length.

Ans 1:

Q7. A telescope is made an objective of focal length 20 cm and eye-piece of 5 cm, both convex lenses. Find the magnifying power of telescope.

Ans 1:

Q8. One can buy a cheap microscope for used by the children. The image seen in such a microscope has coloured edges. Why is this so?

Ans 1: It is due to the defects of lenses known as chromatic aberrations. This is because of the prism-like formation of the lens which causes dispersion of white light.

Q9. Write down the three major components on which a fibre communication system consists.

Ans 1: A fibre communication system consists of

1. Transmitter
2. Optical fibre
3. Receiver

Q10. Why do we use infrared light in a fiber optics communication system?

Ans 1: Infrared light travels faster through optical fiber than visible light. So, it is preferred.
