

Guess Paper – 2009

Class – X

Subject – Physics

QUESTIONS ON LIGHT

1. What do you understand by refraction of light ? what is the cause of refraction?
2. What is total internal refraction of light?What are the conditions required for total refraction to take place?
3. What do you understand by spectrum? How is the spectrum obtained?What is the cause of dispersion?
- 4 .Arrange the different colours in the spectrum in increasing order of wavelength?
- 5 Define angle of deviation?How does it relate to the angle of prism?
- 6 Define critical angle?How does it relate to refractive index?
- 7 Draw a ray diagram for 180° deviation of path of light through a prism?
- 8 Name the invisible spectra.How can their presence be detected?
- 9 Draw a ray diagram to illustrate the bending of a stick in water.
- 10 A monochromatic ray of light travels from air to glass.Find the ratio of the frequency of light in air and glass?
- 11 State Snells law of refraction?
- 12 Is it possible to burn a piece of paper using a convex lens in daylight without using matches ?Draw a diagram to support your answer.
- 13 A ray of light is incident normally on a plane glass slab.What will be the angle of refraction and angle of deviation for the ray?

14 Draw a curve showing the variation of the angle of deviation with the angle of incidence at a prism surface. How is the angle of emergence related to the angle of incidence when the prism is in minimum deviation ?