BRAIN INTERNATIONAL SCHOOL

PHYSICS ASSIGNMENT CLASS- XII OCT'2018

CH- RAY OPTICS

1. Derive Mirror formula.

2. Define reflection. Write laws of reflection.

3. When an object is paced at a distance of 60 cm from a convex spherical mirror, the magnification produced is ½, where should the object be placed to get a magnification of 1/3.

4. A dentist concave mirror has a radius of curvature of 30 cm. How far must it be placed from a small cavity in order to give a virtual image magnified 5 times.

5. Find the position of an object which when placed in front of a concave mirror of focal length 20 cm produces a virtual image which is twice the size of object.

6. What is refraction and write the laws of refraction.

7. What is refractive index of a medium.

8. Describe cause of refraction of light.

9. Derive expression for real and apparent depth.

10. Derive expression for lateral displacement.

11. A light of wavelength 6000 Angstrom in air enters a medium with refractive index 1.5. What will be the wavelength of light in that medium?

12. Explain the phenomenon of total internal reflection. Under what conditions does it takes place.

13. Find the value of critical angle for a material of refractive index 1.73 2.

14. Define critical angle.

15. Whar are optical fibres? On which principle do they work? How does light propagate through an optical fibre?