

Guru Gobind Singh Public School  
Sector V/B, B.S.City  
**Physics Assignment (Class 10)**

1. Define the following terms  
(1) 1 ampere      (2) 1 volt      (3) 1 watt      (4) 1 Ohm
- 2 State Ohm's law  
Derive the formula of parallel combination of resistances
3. Define resistivity deduce the formula of resistivity
4. Write the characteristics of magnetic field lines also draw the diagrams of magnetic field lines of a bar magnet.
5. State a) Maxwell's Right Hand Thumb Rule b) state Fleming's right hand rule and write its one application
6. Write the short note on the following  
(1) Electric fuse      (2) Earthing      and      (3) Short circuiting .
7. Write the energy can write the energy conversion in thermal power plant and Hydro power plant. also write two limitations of each
8. What is solar cell write the name of two elements which is used to fabricate it also write its two advantage and two disadvantages.
9. Show the ray diagram using concave mirror when object is placed (1) at C (2) between F and C and (3) between F and P. also write the nature of image formed .
10. (a) State the laws of refraction write the cause of refraction  
(b) What do you mean by absolute refractive index write its unit.  
(c) Show the refraction of light through glass slab.
11. What is the sign convention of lens. If  $m = -1$  in a lens then what does it mean? Also show its ray diagram.
- 12 (a) write the following functions of following parts of the eye: Iris, Pupil , ciliary muscle and retina.  
(b) what do you mean by power of accommodation?
13. What is myopia? What are causes? How it can be corrected also show the ray diagram of defective eye and corrective eye.
14. Show the diagram of (1) Refraction of light through glass prism (2) Dispersion of light and (3) recombination of white light through prisms.
15. Give reason of the followings  
(1) Star Twinkle at night      (2) Sky appears blue and      (3) Early sunrise and delayed sunset

**Numerical**

16. Find the number of electrons constituting one coulomb of charge.
17. A copper wire of diameter 0.5 mm what length is required to make the 10 ohm resistance given the resistivity of copper is  $10^{-8}$  ohm metre.
18. A bulb is rated 100 watt and 220 volt then find the resistance and current drawn in the bulb.
19. An object of size 4 cm is placed in front of a concave mirror at 20cm if the focal length of the mirror is 15 cm, then find position of image and find the size of the image.
20. Several electric bulbs designed to be used on a 220 volt Electric Supply line and rated 10 watt how many lamps can be connected in parallel with each other across the two wires of 220 volt line is the maximum allowance of current is 5 ampere.