ASSIGNMENT : 1

SUBJECT : PHYSICS

1. State Coulomb ‘s law in electrostatics.
2. Give some limitations of Coulomb ‘s law.
3. State S.I. unit of charge.
4. What is an electric dipole? Define dipole moment and its S.I. units.
5. Define electric potential. Give its units and dimensions.
6. Define capacitance. Give its units.
7. What is equipotential surface? Write properties of equipotential surface.
8. Show that work done to move a charge on equipotential surface is zero.
9. Show that electric field is perpendicular to equipotential surface.
10. Define S.I unit of electric current.
11. Define electron mobility and give its units.
12. Why connecting wires are made of copper and aluminium?
13. Which material is used for making standard resistors and Why?
14. How resistivity of copper and silicon varies with temperature?
15. Out of metals and alloys which has high value of temperature coefficient of resistance?
16. State and explain Biot Savart law.
17. On what factors the current sensitivity of moving coil galvanometer depends?
18. How a galvanometer is converted into an ammeter?
19. How a galvanometer is converted into a voltmeter?
20. Give properties and uses of (a) X-rays (b) U.V. rays.
21. Write down the losses occurred in energy transmission in transformer.
22. Self induction is called inertia of electricity. Why.
23. State lenz rule. Show that it is in accordance with law of conservation of energy.
24. A capacitor blocks d.c. Why?
25. Define (a) Threshold frequency (b) work function (c) Stopping potential.
26. Find de Broglie wavelength of electron accelerated with potential difference V.
27. State laws of photoelectric emission.
28. Out of red and violet Photon, which is more energetic? Why?
29. What do you mean by total internal reflection? What are necessary conditions for it to occur?
30. Define critical angle in total internal reflection. Give relation between critical angle and refractive index.
31. Difference between interference of light and diffraction of light.