

Physics \rightarrow Diagrams & Derivation Questions

1. Torque experienced by Uniform electric field.
2. Expression for Electric Potential at Point due to point charge.
3. Expression for energy stored in capacitor.
4. Parallel Plate capacitor.
5. Obtain Gauss law from colomb's law.
6. Axial line, equatorial plane.
7. Gauss first application.
8. Microscopic form of Ohm's law.
9. Macroscopic form of Ohm's law.
10. Equivalent Resistance Series & Parallel.
11. Internal Resistance Using Voltmeter.
12. Internal Resistance Using Potentiometer.
13. Cells in Series, Parallel.
14. Wheatstone bridge, metre bridge.
15. Calculate torque acting on bar magnet in Uniform magnetic field.

16. explain biot-Savart law
17. axial line of bar magnet
18. equatorial line of bar magnet
19. Infinitely long straight current carrying conductor.
20. Circular coil carrying current
21. force on current carrying conductor placed in magnetic field.
22. RLC circuit
23. Single Phase Ac generator.
24. Show mathematically the relation of coil in magnetic field over one rotation induces an alternating emf one half cycle.
25. Maxwell equation.
26. expression for motional emf from Lorenz force.
27. Phase relationship between Voltage and Current in Pure Resistor circuit.
28. Mirror eq

29. lens maker's formula
30. Fizeau's method
31. Prism
32. Snell's Window
33. eq of Apparent depth.
34. Relation between f & R
35. Brewster's law
36. eq for band width in Young's double slit
37. simple microscope
38. Compound microscope
39. Astronomical microscope
40. diffraction in single slit
41. De-broglie wavelength of electron.
42. Einstein photo electric eq
43. α, β, γ emission
43. Energy of electron in n^{th} orbit
44. Millikan's oil drop experiment
45. JJ Thomson. $(\frac{e}{m})$ value
46. Radius of n^{th} orbit
47. Radioactive decay.

- 48. Spectral series of hydrogen atom
- 49. nuclear reactor.
- 50. transistor in switch, amplifier
- 51. halfwave, fullwave Rectifiers
- 52. De-morgan's Theorem.