

1. Study of characteristics of a GM counter and verification of inverse square law for the same strength of a radioactive source.
([Material can be found here.](#))
2. Study of characteristics of a GM counter and calculation of end point energy of alpha.
([Material can be found here.](#))
3. Determination of coefficient of rigidity as a function of temperature using torsion oscillator (resonance method).
([Material can be found here.](#))
4. Study of RC transmission line and determination of attenuation of electrical signal of 50 Hz.
(Material: [link1](#) and [link2](#).)
5. Study of LC transmission line and determination of propagation and attenuation of electrical signal of Hz.
6. Study of the temperature dependence of resistance of a semiconductor (four probe method).
([Material can be found here](#), [link2](#))
7. To investigate the FET characteristics.
([Material can be found here.](#))
8. ~~Investigate the effect of frequency changes on FET.~~
([Relevant material](#))
Frequency response of BJT.
([Relevant material](#), [link2](#))
9. To study characteristics of op-amp using IC741.
([Material can be found here.](#))
10. To study applications of op-amp using IC741. (Adder, subtractor, differentiator and integrator).
([relevant material](#))
11. Design and analysis voltage multiplier.
(Relevant material: [link1](#), [link2](#), [link3](#))
12. Study of the I-V characteristics of the solar cell and determine the fill factor.
([Material can be found here.](#))
13. Determination of Planck's constant using solar cell.
([Material can be found here.](#))
14. Study reflection of polarized light from a glass plate. (May be incorrect statement)
([Relevant material](#))
15. Using discrete components, study OR, AND, NOT logic gates, compare with TTL integrated circuits.
16. ~~Stephen's constant.~~
17. Characteristic of Zener diode and study of voltage regulation using zener diode.
([Relevant material](#))