

SYLLABUS :-

1. To verify the Rutherfords formula of scattering from Coulomb potential
2. To study the plateau characteristics of a G-M counter
3. To study the nature of the G-M counter pulses
4. To determine the dead time of a G-M counter
5. To verify the inverse square law for nuclear radiations
6. To determine the range of beta-rays
7. To determine the absorption coefficient of aluminum for beta -rays from  $^{137}\text{Cs}$
8. To study the Z-dependence of the absorption coefficient for beta -rays from  $^{137}\text{Cs}$
9. To study the energy dependence of the absorption coefficient of aluminum for gamma-rays
10. To study the statistical nature of nuclear radiations using a G-M counter
11. To study the bulk-etch rate of CR-39 plastic track detector
12. To study the alpha particle tracks in CR-39 plastic track detector
13. To study the pulse shaping in preamplifier-amplifier combination