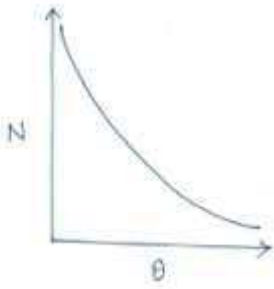


ASSIGNMENT

PHYSICS
CLASS XII

Q1. In the adjoining graph θ is the angle of scattering and N is no. of α particles scattered in Rutherford's expt. Explain the graph.



Q2. Define impact parameter.

Q3. Calculate the distance of closest approach of an α particle to a nucleus having charge $+ze$.

Q4. Which atomic facts could not be explained using Bohr's atomic model?

Q5. Define excitation, ionization, excitation energy and ionization energy.

If $E_1 = -13.6 \text{ eV}$, $E_2 = -3.4 \text{ eV}$ and $E_3 = -1.5 \text{ eV}$ for a hydrogen atom then calculate 1st excitation energy and ionization energy of the atom.