

## Structure of Atom - I

### Exemplar Problem 1:

- 1) Which of the following conclusions could not be derived from Rutherford's  $\alpha$ -particle scattering experiment?
- (a) Most of the ~~at~~space in the atom is empty.
  - (b) The radius of the atom is about  $10^{-10}$  m while that of nucleus is  $10^{-15}$  m.
  - (c) Electrons move in a circular path of fixed energy called orbits.
  - (d) Electrons and the nucleus are held together by electronic state/force of attraction.

Soln: The circular path of fixed energy called orbit is explained by Neil Bohr, but not Rutherford.

∴ Hence option C is correct