

## Chapter 4 - Structure of Atom

### Summary of Structure of Atom

- Atom is the smallest particle of an element. It has two parts: nucleus and outer nuclear part.
- Nucleus of the atom consists of protons and neutrons. Protons are positively charged particles. Neutrons possess no charge.
- In outer nuclear part, electrons are present. Electrons are negatively charged particles.
- Atomic number represents the number of protons in an atom. As atoms are electrically neutral, an atom contains as many electrons as it has protons. The total number of protons and neutrons present in one atom of an element is known as its mass number.
- The arrangement of electrons in the various shells/orbits/energy levels of an atom of the element is known as electronic configuration.
- Atoms of a given atomic number can have different number of neutrons are called isotopes.
- The atoms of different elements, which have the same mass number but different atomic numbers are called isobars. These have different number of protons but equal sum of number of protons and neutrons.
- The atoms of different elements, which have the same number of neutrons but different atomic numbers, are called isotones.