Cl. 8 CHEM

ATOMIC NUMBER (Z)

ATOMIC NUMBER OF AN ELEMENT ~ is equal to
- NUMBER of Protons ~ in the atom of an element.
  ~ since atoms are electrically neutral.
  Number of Protons = Number of electrons.

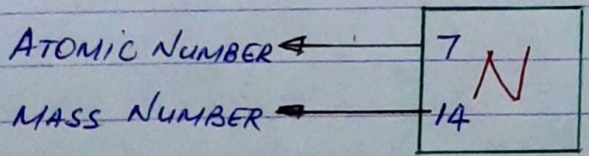
∴ Atomic number of an element is also equal to
- Number of electrons ~ in the atom of an element.

$$Z = p = e$$
(atomic no.) (no. of protons) (no. of electrons)

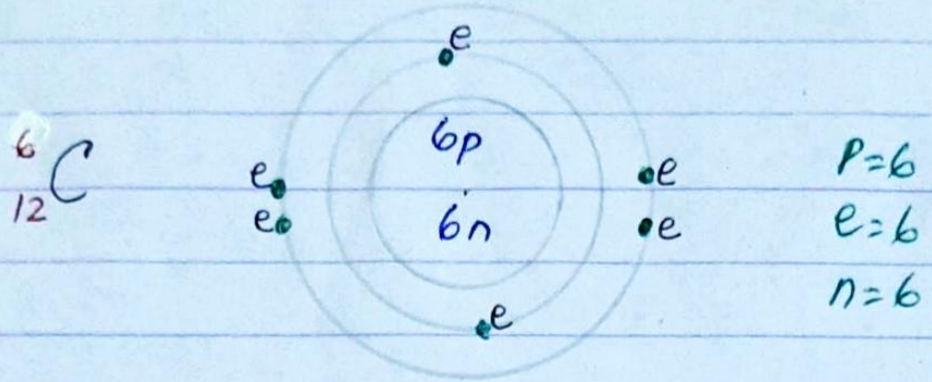
(MASS NUMBER) (A)

- Mass number of an element ~ is equal to
The total number of protons and neutrons ~ in an atom of the element.
  ~ since electrons carry negligible mass, the mass of an atom is almost the mass of the protons and neutrons in the nucleus of the atom.

$$A = p + n$$
(mass number) (no. of protons) (no. of neutrons)



* Remember the smaller no. is always the Atomic no. and is involved in the electronic configuration



Atomic number [Z] = p = e = 6

mass number [A] = p + n = 12

no. of neutrons [n] = A - Z = 6