Worksheet about ‘Structure of Atom’

1. **Choose the correct answer**
   1) Nitrogen atom consists of 7 protons, 7 neutrons and 7 electrons. Its **atomic number** \( Z \) is:
      a) 7                      b) 14                      c) 21

   2) Aluminum atom consists of 13 protons and 14 neutrons. Its **mass number** \( A \) is:
      a) 13                          b) 14                       c) 27

   3) Fluorine atom has atomic number \( Z = 9 \) and mass number \( A = 19 \). The **number of neutrons** \( N \) it contains is:
      a) 9                      b) 19                       c) 10

   4) If the atomic number of the Chlorine atom is 17 and the mass number is 35, and the symbol for the chlorine element is Cl. So, the **atomic representation** for Chlorine atom is
      a) \( _{18}^{35}\text{Cl} \)                      b) \( _{35}^{17}\text{Cl} \)                       c) \( _{17}^{35}\text{Cl} \)
2. An atom sodium (Na) has 11 positively charged particles and 12 chargeless particles.
   a) Indicate the number of protons and neutrons.
   b) Deduce the number of electrons.
   c) Find the mass number and atomic number.
   d) Write the atomic representation of sodium atom.

3. Complete the following concept map:

4. Given the following atoms: $^{14}_7 \text{N}$ and $^{23}_{13} \text{Al}$
a) Indicate the mass number and the atomic number for each of the above atoms.
b) Determine the compositions for each of the above atoms.