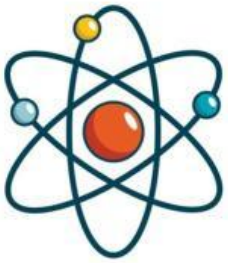
STRUCTURE OF MATTER



Answer the following questions:

1)

a) The atom is often compared to a miniature planetary system. What would represent the Earth and the planets in the atom? And the Sun?
b) How many different types of particles are found in the atom? How are they called?
c) How many zones can be distinguished in the atom? How are they called?
d) In which area of the atom can protons be found?
e) In which area of the atom can neutrons be found?
f) In which area of the atom can electrons be found?
g) What atomic particles contribute practically all of the mass of the atom?
h) How many times is the mass of the proton greater than that of the electron?

2) Indicate whether the following statements are true or false

a) Protons are particles found in the atomic nucleus and have a positive electric charge
b) Electrons are found in the atomic nucleus and have a negative electrical charge
c) Neutrons are the subatomic particles with the lowest mass
d) Electrons are found in the atomic shell

3) Complete the gaps:

The atomic number of phosphorus is 15 and its mass number is 31.

The of the from phosphorus has protons and neutrons. The of the atom of phosphorus in a neutral state has

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4) If Z is the atomic number of an atom of an element and A its mass number, then A-Z is:

The number of neutrons

The number of neutrons minus the number of protons

The number of electrons

5) The nucleus of an atom consist on 6 protons and 8 neutrons, so (you could select more than one):

Its atomic number is 8

Its mass number is 8

Its atomic number is 14

Its mass number is 14

Its number of electrons is 14

6) Complete the next table:

Atom	Z	A	Number of protons	Number of neutrons	Number of electrons
C	6	12			
Na			11	12	
Cl		35			17
Be		9			4
Ar	18			22	
O	8			8	
Al		27	13		
F			9	10	

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