

**Grade 10 - TN Samacheer Kalvi Science**  
**(Atoms and Molecules)**

**I.** Choose the best answer:(Click the correct option)

1. Which of the following has the smallest mass?  
a.  $6.023 \times 10^{23}$  atoms of He   b. 1 atom of He   c. 2 g of He   d. 1 mole atoms of H
  
2. Which of the following is a triatomic molecule?  
a. Glucose      b. Helium      c. Carbon dioxide      d. Hydrogen
  
3. In the nucleus of  $^{20}\text{Ca}^{40}$ , there are  
a. 20 protons and 40 neutrons      b. 20 protons and 20 neutrons  
c. 20 protons and 40 electrons      d. 40 protons and 20 electrons
  
4. The volume occupied by 4.4 g of  $\text{CO}_2$  at S.T.P  
a. 22.4 litre      b. 2.24 litre      c. 0.24 litre      d. 0.1 litre
  
5. Mass of 1 mole of Nitrogen atom is  
a. 28 amu      b. 14 amu      c. 28 g      d. 14

**II.** Fill in the blanks :(Drag and Drop)

Neutrons, Same, Mass number, artificial transmutation, Standard atomic weight, different

1. Atoms of different elements having \_\_\_\_\_ mass number, but \_\_\_\_\_ atomic numbers are called isobars.
  
2. Atoms of different elements having same number of \_\_\_\_\_ are called isotones.
  
3. Atoms of one element can be transmuted into atoms of other element by \_\_\_\_\_
  
4. The sum of the numbers of protons and neutrons of an atom is called its \_\_\_\_\_
  
5. Relative atomic mass is otherwise known as \_\_\_\_\_