

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. 6.023×10^{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 $^{40}_{20}\text{Ca}$, 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 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 _____