

ONE TWO ACADEMY**STD 10 SCIENCE****Atoms and Molecules****Total:- 25 marks****Time:- 45 minutes****Answer the following questions:****4 x 1 = 4**

1. The mass of an atom is measured in ____.
2. What is the gram molecular mass of H_2O .
3. Give an example for the hetero atomic molecule.
4. Calculate the number of moles in 46 g of sodium.

Answer any three of the following questions:-**3 x 2 = 6**

5. Define the Relation atomic mass.
6. Give two exmaples of heterodiatomic molecules.
7. Define atomicity and give classification of molecules.
8. State Avogadro's law.

Answer any two of the following questions:-**2 x 4 = 8**

10. Distinguish atoms and molecules.
11. Find the mass percentage of the composition of CH_4 . (methane)
12. Calculate the number of moles in
 - (i) 27 g of Al
 - (ii) 1.51×10^{23} molecules of NH_4Cl .

Answer any one of the following questions:-**1 x 7 = 7**

13. Prove that $RMM = 2 \times VD$.
14. Enlist the main postulates of modern atomic theory.