

CBSE TEST PAPER-02

CLASS - IX Science (Atoms and Molecules)

1. 1 Mole of a compound contains – [1]
(a) 6.023×10^{23} atoms (b) 6.023×10^{24} atoms
(c) 60.23×10^{23} atoms (d) 6.023×10^{25} atoms
2. Oxygen is – (a) Monovalent (b) Bivalent (c) Trivalent (d) Tetravalent [1]
3. What is the molecular formula for Calcium Hydroxide? [1]
(a) $\text{Ca}(\text{OH})_2$ (b) Ca OH (c) $\text{Ca}_2 \text{OH}$ (d) Ca H_2
4. Neutron is [1]
(a) Chargeless and Massless (b) Chargeless and has Mass
(c) Has charge and Mass (d) Has charge and Massless.
5. State the law of constant Proportion? [2]
6. How many molecules of water are present in a drop of water which has a mass of 50mg? [2]
7. Find the number of protons and neutrons in the nucleus of an atom of an element X which is represented as $^{207}\text{X}_{82}$. [2]
8. Define the terms:- a) Atomic number b) Mass number [2]
9. Which element will be more reactive and why → the element whose atomic number is 10 or the one whose atomic number is 11? [3]
10. What are the failures of Dalton Atomic theory? [3]
11. Calculate the molecular Mass of [3]
a) Ammonium sulphate $[(\text{NH}_4)_2 \text{SO}_4]$
b) Penicillin $[\text{C}_{16}\text{H}_{18}\text{N}_2\text{SO}_4]$
c) Paracetamol $[\text{C}_8\text{H}_9\text{NO}]$
12. The following questions are about one mole of sulphuric acid $[\text{H}_2\text{SO}_4]$? [?]
a) Find the number of gram atoms of hydrogen in it?
b) How many atoms of hydrogen does it have?
c) How many atoms (in grams) of hydrogen are present for every gram atom of oxygen in it?
d) Calculate the number of atoms in H_2SO_4 ?