

1. What happens when a saturated solution of sodium chloride prepared at 60°C is allowed to cool at room temperature?
2. Why is it not possible to see an atom with naked eye?
3. Differentiate between simple distillation and fractional distillation
4. Why is crystallization technique better than evaporation?
5. What do you understand by relative atomic mass of an element?
6. Differentiate between molecular mass and formula unit mass.
7. **Find out ratio by mass of the combining elements in the following compounds:**
 - a. $\text{Ca}(\text{OH})_2$
 - b. H_2SO_4
8. Write down the main observations and a conclusion of Rutherford's α – scattering experiment. Mention its drawbacks.
9. **Write down the formulae of :**
 - a. Sodium Oxide.
 - b. Calcium hydroxide
10. Colloidal solution shows Tyndall effect but true solution does not. Discuss.
11. What do you understand by the term Brownian movement?
12. **Calculate:**
 - a. No. of particles in 8g of oxygen molecule.
 - b. Which has more number of atoms?
 - (i) 100g of sodium
 - (ii) 100g of iron.

(Given: Atomic mass of Na=23u; Fe= 56u)
13. **Write the chemical name ,chemical formulae and molecular mass of the following compounds:**
 - a. Baking Soda
 - b. Common salt
 - c. Caustic soda
 - d. Methanol
14. **Write symbol and Valency of the following :**

Barium, Phosphate, Ammonium, Sodium, Nitrate.
15. **Give the chemical formula for the following compounds and compute the ratio by mass of the combining elements :**

Hydrogen chloride , Ammonia.