



ASSIGNMENT NO. 1

SUBJECT: CHEMISTRY

CLASS-IX

APRIL, MAY'2026

Chapter-1: Exploring Mixtures and their separation.

Answer the following questions :

1. State any one difference between pure and impure substances .
2. What are the two components of a solution .
3. Identify homogeneous mixture from the following: Soda water, Soil, Vinegar, Unfiltered tea .
4. Write the differences between homogeneous and heterogeneous mixture with examples.
5. "Air is a mixture " Justify.
6. Write two properties of colloids .
7. Which one amongst the following will show Tyndall effect ?
(i) Common salt solution (ii) Copper sulphate solution (iii) Milk
8. Give anyone point of difference between true solution ,colloidal solution and suspension.
9. 20g of sodium chloride is dissolved in 100 ml of water .How will you test whether the given solution is saturated or unsaturated at the given temperature ?
10. Suggest anyone method by which we can increase the solubility of saturated solutions.
11. Calculate the volume by volume percent solution formed by combining 18 ml of pure hydrogen peroxide with water to make 630ml of solution.
12. If 7.5 ml of ethyl alcohol is dissolved in water solution such that total volume of solution is 450 ml, Calculate the concentration of ethyl alcohol expressed as a volume percent ?
13. Define solubility .How does solubility of a solid in water change with temperature ?
14. A student was given a mixture of iron filings and sulphur . He was told to heat it and observe the compound .
 - (a) What is the colour of the compound formed ?
 - (b) Write the effect of magnet on it .
 - (c) Write the action of carbon disulphide on it .
 - (d) Describe the effect of adding dilute HCl to it .Identify the gas and write its two properties.
15. **Two statements are given-one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below**
 - (a) **Both A and R are true and R is correct explanation of the assertion.**
 - (b) **Both A and R are true but R is not the correct explanation of the assertion.**
 - (c) **A is true but R is false.**
 - (d) **A is false but R is true.**

Assertion (A) : Aerosol is a colloidal system

Reason(R) : In aerosol , solid or liquid particles are dispersed in a gas.

Assertion (A) : Milk is an example of emulsion .

Reason(R) : It consists of liquid fat droplets dispersed in water.