

Sh. S.N. Sidheshwar Public School

Session - 2026-2027

Class- IX

Subject – Science

Assignment of Ch-5

Exploring Mixtures and their Separation

1. How will you separate a mixture of common salt, sulphur powder and sand?
2. What is coagulation? Give one example.
3. What is Tyndall effect? With the help of an activity show that Tyndall effect can be used to distinguish a true solution from a colloidal solution.
4. List the points of difference between homogeneous and heterogeneous mixtures.
5. Differentiate between unsaturated, saturated and supersaturated solutions. Give one example in each case .
6. Define the term solubility. Discuss the effect of temperature and pressure on the solubility of gases in liquids.
7. Is air a mixture or a compound? Give three reasons.
8. Calculate the mass of sulphuric acid present in 100mL of 15% mass by mass solution of sulphuric acid. (Density=1.10g/mL)
9. 3g of a solute are dissolved in 30g of water to form a saturated solution at 298 K. Calculate the solubility of solute at this temperature.
10. Define sublimation.
11. Draw the diagram of the apparatus used for separating a mixture of hexane (b.pt. 342K) and toluene (b.pt. 384K). Can this method be used to separate the constituents of rectified spirit? Give reasons for your answer.
12. Write difference between true solution, suspension and colloidal solution.
13. Define crystallisation.
14. Write the application of chromatography.
15. How will you bring about the following separations?
 - a. Fine mud particles floating in water.
 - b. Carbon particles present in smoke.