WATER
WORKSHEET 1

1. Define the following terms :
   (a) Concentration of a solution.
   (b) Dilute solution
   (c) Concentrated solution
   (d) Unsaturated solution
   (e) Saturated solution
   (f) Supersaturated solution.
2. You are provided with three solutions of a solute, such that one of them is unsaturated, the others beings saturated and supersaturated. Using a tiny crystal of solute, how will you distinguish between them.
3. (a) What do you understand by the term solubility of a solute?
   (b) Why is temperature always specified while stating the solubility of a solute?
   (c) State one way of increasing the solubility of a solute?
4. (a) Name two solids whose solubility increases with the rise in temperature.
   (b) Name the solids whose solubility decreases with the rise in temperature.
   (c) Name two solids whose solubility does not change with the rise in temperature.
   (d) Name one solid whose solubility first increases and then decreases with the rise in temperature.
5. Briefly describe how will you determine the solubility of potassium nitrate at $50^{o}C$.
6. (a) What do you understand by the term solubility curve?
   (b) State three applications of solubility curves.
7. You are provided with a saturated solution of copper sulphate at $70^{o}C$. solution is allowed to cool slowly to room temperature ($20^{o}C$).
   Answer the following questions.
   (a) State two observations as the solution cools down.
   (b) State one reason for each of your observations in (a).
   (c) Is the solution at room temperature saturated or unsaturated?
8. What do you understand by the statement that solubility of a salt S at $34^{o}C$ is 48 g?
9. State the importance of dissolved salts in natural water
10. (a) Why is rain water called the purest kind of naturally occurring water?
    (b) Why is the first shower of rain water not considered pure?