Worksheet: Acids, Bases and Salts

1. Is the distilled water acidic/basic/neutral? How would you verify it?
2. Blue litmus paper is dipped in a solution. It remains blue. What is the nature of the solution? Explain.
3. Write chemical names and formulae of plaster of Paris and Gypsum.
4. Define water of crystallisation. Give the chemical formula for two compounds as examples. How can it be proved that the water of crystallisation makes a difference in the state and colour of the compounds?
5. Name the source from which litmus solution is obtained. What is the use of this solution?
6. State differences between acids and bases.
7. If someone in the family is suffering from a problem of acidity after overeating, which of the following substances would you suggest as a remedy?
8. Why should curd and sour substances not be kept in brass and copper vessels ?
9. Write the names of the product formed when zinc reacts with NaOH. Also write the balanced chemical equation for the reaction involved. Write a test to confirm the presence of the gas evolved during this reaction.
10. Describe the process of neutralisation with the help of an example.
11. Ammonia is found in many household products, such as window cleaners. It turns red litmus blue. What is its nature?
12. Why do HCl, HNO3, etc show acidic characters in aqueous solutions while solutions of compounds like alcohol and glucose do not show acidic character ?
13. Define an acid-base indicator. Mention one synthetic acid-base indicator.
14. Which gas is usually liberated when an acid reacts with a metal ? Illustrate with an example. How will you test for the presence of this gas ?
15. Three liquids are given to you. One is hydrochloric acid, another is sodium hydroxide and third is a sugar solution. How will you identify them? You have only turmeric indicator.
16. Explain why: (a) An antacid tablet is taken when you suffer from acidity (b) Calamine solution is applied on the skin when an ant bites. (c) Factory waste is neutralised before disposing it into the water bodies.
17. Identify the acid and the base from which sodium chloride is obtained. Which type of salt is it? When is it called rock salt? How is rock salt formed?

18. What are anhydrous and hydrated salts? Explain with a suitable example of each.

19. A white powder is added while baking cakes to make it soft and spongy. Name its main ingredients. Explain the function of each ingredient. Write the chemical reaction taking place when the powder is heated during baking.

20. You have been provided with three test tubes. One of them contains distilled water and the other two contain an acidic solution and a basic solution, respectively. If you are given only red litmus paper, how will you identify the contents of each test tube ?