

ACID, BASES AND SALTS

CLASS 10

ASSIGNMENT

1. Name two substances from daily life which contain acid and two substances which contain base.
2. Can we use Na_2CO_3 as antacid? Why?
3. What is the colour of $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ and CuSO_4 ?
4. Name the acid present in guava?
5. What is Milk of Magnesia? Is it strong or mild base?
6. The pH of a sample of a vegetable soup was found to be 6.5. How is this soup likely to be used?
7. Curd is not kept in brass and copper utensils. Why?
8. How will you test for the gas liberated when Hydrochloric acid reacts with an active metal?
9. On adding dil. HCl to copper oxide powder, the solution formed is blue-green. Predict the new compound formed which impacts a blue-green colour to the solution?
10. What is the cure for bee sting? Why?
11. What happens when chlorine is passed over slaked lime at 313K. Write chemical equation of the reaction involved and state two uses of the product obtained.
12. What is meant by 'water of crystallization' of a substance? Describe an activity to show that copper sulphate crystals contain water of crystallization.
13. A compound 'X' of sodium is completely used in kitchen for making crispy pakoras. It is also used for curing acidity in the stomach? Identify X. Write its chemical formulae. State the reaction which takes place when it is heated during cooking.
14. Name three products obtained on electrolysis of an aqueous solution of Sodium Chloride. Why this process is called chlor-alkali process?
15. A calcium compound which is a yellowish white powder is used as a disinfectant and also in textile industry. Name the compound. For what purpose it is used in paper industry?
16. Three acidic solutions A, B, C have pH=0, 3, 5 respectively. a) Which solution has the highest number of H^+ ions? b) Which solution has the least number of H^+ ions?
17. Write word equation and balance the equations- a) Dil. sulphuric acid reacts with zinc granules b) Hydrogen gas reacts with chlorine.
18. Baking soda is used in small amount in making bread and cake. It is used to make cake soft and spongy. An aqueous solution of baking soda turns red litmus blue. It is also used in soda-acid fire extinguisher. a) How does baking soda to make cake and bread spongy and soft? b) How does it help in fire extinguisher? c) Is the pH value of baking soda lower than or higher than 7? 19. State the name and function of the acid present in our stomach. What remedy would you suggest to a person suffering from indigestion, pain and irritation in the stomach? Name the main ingredient of this remedy and state its function.
20. A metal carbonate X on reacting with an acid gives a gas which when passed through a solution Y gives the carbonate back. On the other hand, a

solution gives a gas G that is obtained at anode during crystallization of brine is passed on dry Y, it's gives a compound Z used for disinfecting drinking water. Identify X,Y,G and Z. 21.a) Why does an aqueous solution of an acid conducts electricity? b) How does the concentration of Hydronium ions [H_3O^+] change when a solution of an acid is diluted? c) Which has the higher pH value, a concentrated or dilute solution of HCl? d) What could you observe on adding dil. HCl to- (i) Solid sodium carbonate placed in a test tube? (ii) Zinc metal in a test tube? 22. What is the role of tartaric acid in baking powder? 23. A student dropped a few pieces of marble in dil HCl contained in a test tube. The evolved gas was passed through lime water. What change would be observed in lime water? Write balanced chemical equations of reactions when- a) gas was evolved? b) gas was passed through lime water? 24. Tooth enamel is the hardest substance in our body. How does it undergo damage due to eating chocolates and sweets? How do tooth paste prevent it from damage?

