

Acids, Bases and Salts

1 Mark:

1. How does the flow of acid rain water into a river make the survival of aquatic life in the river difficult? [CBSE, 2008]
2. What effect does an increase in concentration of $H^+(aq.)$ in a solution have on the pH of solution? [CBSE, 2009]
3. During summer season, a milkman usually adds a very small amount of baking soda to fresh milk. Give one reason. [CBSE Sample Paper 2008]
4. Dry Hydrogen Chloride gas does not turn blue litmus red whereas Hydrochloric acid does. Give one reason. [CBSE Sample Paper 2008]

2 Marks:

1. Write the chemical formula for washing soda. How may it be obtained from baking soda? Name an industrial use of washing soda other than washing clothes. [CBSE, 2008]
2. I. Name the products formed when sodium hydrogen carbonate is heated.
II. Write the chemical equation for the reaction involved in the above. [CBSE, 2009]

3 Marks:

1. Baking soda is used in small amount in making bread and cake. It helps to make these soft and spongy. An aqueous solution of baking soda turns red litmus blue. It is also used in soda acid fire extinguisher. Use this information to answer the following questions:
 - I. How does Baking Soda help to make cakes and bread soft and spongy?
 - II. How does it help in extinguishing fire?
 - III. Is the pH value of baking soda solution lesser than or greater than 7? [CBSE Sample Paper 2008]
2. Answer the following: [CBSE Sample Paper 2008]
 - a) Why is Plaster of Paris written as $CaSO_4 \cdot \frac{1}{2} H_2O$? How is it possible to have half a water molecule attached to $CaSO_4$?
 - b) Why is Sodium Hydrogen Carbonate an essential ingredient in antacids?
 - c) When electricity is passed through an aqueous solution of sodium chloride, three products are obtained. Why is the process called chlor-alkali?
3. " pH has a great importance in our daily life" explain by giving three examples.

OR

A compound which is prepared from gypsum has the property of hardening when mixed with a proper quantity of water. Identify the compound and write its chemical formula. Write the chemical equation for its preparation. Mention any one use of the compound. [CBSE Sample Paper 2017]