

## CBSE TEST PAPER-04

### SCIENCE & TECHNOLOGY (Class-10)

#### Chapter 2. Acids, Base and Salts

1. Three solutions A, B and C have pH, values of 6, 4 and 10 respectively. Which of the solution is highly acidic? (1 mark)
2. Two solutions X and Y have pH = 4 and pH = 8 respectively. Which solution will give alkaline reaction and which one acidic. (1 mark)
3. A farmer has found that the pH of soil in his fields is 4.2. Name any two chemical materials which he can mix with soil with soil to adjust its pH. (1 mark)
4. State the chemical name and formula of common salt. (1 mark)
5. 'Sweet tooth' may lead to tooth decay. Explain why? What is the role of tooth paste in preventing cavities? (2 marks)
6. Write the reaction that takes place when sodium oxide reacts with water. How will this solution behave towards phenolphthalein and red litmus paper? (2 marks)
7. Why should curd and sour substances not be kept in brass and copper vessels? (2 marks)
8. How is the concentration of hydronium ions ( $\text{H}_3\text{O}^+$ ) affected when a solution of an acid is diluted? (2 marks)
9. Why do acids not show acidic behavior in the absence of water? (2 marks)
10. Identify the compound of calcium which is used for plastering of fractured bones. With the help of chemical equation, describe how this compound is prepared. What special precaution should be taken during the preparation of this compound? (3 marks)
11. State Arrhenius Concept of acids and bases. Giving reason, select a strong acid and a weak base from amongst the following substances: (3 marks)  
 $\text{H}_2\text{CO}_3$ ,  $\text{HNO}_3$ ,  $\text{NaOH}$ ,  $\text{NH}_4\text{OH}$
12. (i) Why should curd and sour substances no be kept in brass and copper vessels.  
(ii) The pH of hydrochloric acid solution is 3. Does it mean that it has only hydronium ions. If not, how are  $\text{OH}^-$  ions generated?  
(iii) Distinguish between acid and alkali. (5 marks)

Or

Compounds like alcohol and glucose also contain hydrogen but are not categorized as acids. Describe an activity to prove it.