

1. Why does the flow of acid rain water into a river make the survival of aquatic life in the river difficult?
2. Why should water be never added drop wise to concentrated sulphuric acid?
3. Write balanced chemical equations for the reactions taking place when dry blue crystals of copper sulphate are dropped into concentrated sulphuric acid.
4. What is the role of tartaric acid in baking powder?
5. There are two jars A and B containing food materials. Food in jar A is pickled with acetic acid while B is not. Food of which jar will stale first?
6. If soil is acidic which compound would you spread to treat the soil?
7. Write two observations you make when quick lime is added to water.
8. A calcium compound which is yellow white powder is used as disinfectant and also in textile industry. Name the compound. Which gas is released when this compound is left exposed in air?
9. State the chemical property in each case on which the following uses of baking soda are based
  - (i) As an antacid
  - (ii) As a constituent of baking powder
10. How chlorine of lime is chemically different from calcium chloride?
11. Name the acids present in the following foodstuffs which attribute to a sour taste to them
  - (i) Lemon juice
  - (ii) Vinegar
  - (iii) Vitamin C tablet
  - (iv) Tamarind
  - (v) Sour milk
12. What does pH stand for? What does pH scale indicate?
13. Sweet tooth may lead to tooth decay. Explain, why? What is the role of tooth paste in preventing cavities?
14. Write the names of five hydrated salts with their colors and formulae.
15. How are bases different from alkalis? Are all bases alkalis?
16. What are strong acids and weak acids? Give two examples.
17. How will you test a gas which is liberated when hydrochloric acid reacts with an active metal?

18. Indicate with the help of a diagram the variation of pH with change in concentration of hydrogen ion and hydroxide ions showing
  - (i) Increase of acidic and basic nature.
  - (ii) Increase and decrease of H ion.
19. What are indicators? Give examples and their color changes in different medium.
20. How will you prepare 100 times dilute solution from 1mL of concentrated sulphuric acid solution? What precaution would you suggest and why?
21. What are the symptoms of the problem of acidity? What possible remedy can be used at home?
22. Name three chemical indicators.
23. How does turmeric change its color in an alkaline medium?
24. Write equations for the reaction of an acid with;
  - (a) A metal
  - (b) A metal carbonate
  - (c) A metal hydrogen carbonate
  - (d) A base
  - (e) A metallic oxide
25. On keeping curd in a brass vessel for some time, it becomes bitter. Why?
26. What happens when an acid is dissolved in water?
27. Why is HCl gas unable to change the color of a dry blue litmus paper? What happens if the litmus paper is moistened?
28. A solution of HCl in water conducts electricity but that of glucose in water does not. Why?
29. What is a hydronium ion? How is it formed?
30. Which ions are generated by bases in water?
31. For diluting an acid, the acid should be poured carefully in water and not the reverse. Why?
32. When an acid is mixed with water, what happens to:-
  - (a) The conc. of hydronium ions per unit volume.
  - (b) The conc. of hydroxide ions per unit volume.
33. Two solutions A & B have pH 2 and 6 respectively. Which is more acidic?
34. Name the hardest chemical substance present in our body.
35. How does acid rain water affect the survival of aquatic life?
36. Why does bee-sting cause pain and irritation? What relief can be given in such a case immediately?

37. Write 2 uses of: Washing soda, baking soda, bleaching powder. From the following, pick the acidic, basic or neutral salts:-
- (a) Sodium chloride
  - (b) Sodium acetate
  - (c) Ammonium chloride
  - (d) Calcium carbonate
  - (e) Sodium carbonate
38. What is chlor-alkali process?
39. How is baking soda & washing soda manufactured?
40. Explain the role of baking soda in baking powder.
41. What is meant by water of crystallization?
42. How can you show with an activity the presence of water in blue copper Sulphate crystals?
43. How is gypsum different from plaster of Paris chemically?
44. Why should POP be stored in air tight containers?