



Acids, Bases, and Salts

Grade 10

Question Bank

Answer the following questions

1. What is an acid and base?
2. What are the characteristics of acids and bases?
3. What is the colour change shown by a red litmus paper in an acid and a base?
4. Will the colour of blue litmus paper change in acids? If yes, how?
5. Write word equations and then balanced equations for the reaction taking place when –
 - (a) dilute sulphuric acid reacts with zinc granules.
 - (b) dilute hydrochloric acid reacts with magnesium ribbon.
 - (c) dilute sulphuric acid reacts with aluminium powder.
 - (d) dilute hydrochloric acid reacts with iron filings.
6. Compounds such as alcohols and glucose also contain hydrogen but are not categorised as acids. Describe an Activity to prove it.
7. Which gas is produced when an acid and a base react with metals? Give one example for each reaction.
8. Which gas is produced when metal carbonates and metal hydrogen carbonates react with acids? Give a reaction for each.
9. What is a neutralisation reaction? Give two examples.
10. How does a metal oxide react with the acid? Write one reaction
11. Give one reaction that shows the reaction of a non-metal oxide with a base.
12. Why does distilled water not conduct electricity, whereas rain water does?
13. Why do acids not show acidic behaviour in the absence of water?
14. Five solutions A, B, C, D and E when tested with a universal indicator showed pH as 4, 1, 11, 7 and 9, respectively. Which solution is
 - (a) neutral?
 - (b) strongly alkaline?
 - (c) strongly acidic?
 - (d) weakly acidic?
 - (e) weakly alkaline?Arrange the pH in increasing order of hydrogen-ion concentration

15. Fresh milk has a pH of 6. How do you think the pH will change as it turns into curd?
Explain your answer.
16. A milkman adds a very small amount of baking soda to fresh milk.
(a) Why does he shift the pH of the fresh milk from 6 to slightly alkaline?
(b) Why does this milk take a long time to set as curd?
17. Plaster of Paris should be stored in a moisture-proof container. Explain why?
18. Give two important uses of washing soda and baking soda
19. How can you prepare baking soda, bleaching powder and sodium hydroxide? Give reactions for each of them.
20. What will be the nature of salt if it is made by a reaction of:
- Weak acid and strong base
 - Strong acid and weak base
 - Strong acid and strong base