

# JSUNIL TUTORIAL

## SAMASTI PUR , BIHAR

### Acids, Bases and Salts

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#### Five marks questions.

1. Name the following :
  - (i) One strong base and one weak acid.
  - (ii) Acid injected into our body by a bee sting that causes pain.
  - (iii) Mixture of common salt and ice.
  - (iv) Commercial name of calcium sulphate hemihydrate.
  - (v) Sodium compound used as an ant acid.
2. Give reasons for the following :
  - (i) Plaster of paris should be stored in moisture proof container.
  - (ii) Why bleaching powder is used for disinfecting drinking water ?
  - (iii) A farmer is adding quick lime to the field. Why he is doing so ? What other chemicals compounds he can add to his field ?
  - (iv) Curd and sour substances should not be kept in brass and copper vessel.
  - (v) Distilled water does not conduct electricity where as rain water does.
3. Write equations and then balanced equation for the reaction taking place.
  - (i) Solution of NaOH reacts with Zinc metal.
  - (ii) Bleaching powder reacts with sulphuric acid.
  - (iii) Chlorine gas is passed through slaked lime.
  - (iv) Excess of  $\text{CO}_2$  is passed through lime water.
  - (v) Washing soda is exposed to atmosphere.
4. The pH value of solutions P, Q, R, S, and T are 3, 1, 12, 7 and 10 respectively.
  - (i) Arrange these solutions in the decreasing order of pH values.
  - (ii) Arrange these solutions in the increasing order of pH values.
  - (iii) In the list of the given solutions identify ?

- (a) Neutral solution
  - (b) Highly alkaline solution
  - (c) Highly acidic solution
  - (d) less acidic solution
  - (e) less basic solution.
5. (a) Write the equations to represent the reaction of sodium hydroxide with
- (i) Zinc metal
  - (ii) Carbon dioxide
  - (iii) Hcl
- (b) Give one example to represent the following
- (i) A basic oxide which is soluble in water.
  - (ii) A basic oxide which is insoluble in water.
  - (iii) A hydroxide which is insoluble in water.
  - (iv) A strong and a weak basic oxide.

**Three marks questions**

6. (a) How does  $H^+$  ions exist in water ?
- (b) A solution has a pH equal to 7. How can we
- (i) increase the pH
  - (ii) decrease its pH.
7. Give reasons for the following
- (i) Change in pH can cause tooth decay.
  - (ii) The acid must always be added slowly to water with constant stirring.
  - (iii) Acids show their acidic behaviour only in presence of water.
8. What happens when electricity is passed through an aqueous solution of sodium chloride (brine) write equations. Name this process.
9. Why the Tartaric acid is added in baking soda to prepare baking powder ?
10. What happens to the concentration of an acid or a base. When water is mixed to it, and what is the name given to this process.

**Two marks question**

11. Name the plant from which litmus solution is extracted and name the division to which this plant belongs.
12. Why the compounds like alcohol and glucose do not show acidic behaviour although they contain hydrogen in them.
13. Fresh milk has a pH of 6. How does the pH would change as it turns into curd?
14. An element P does not react with dilute sulphuric acid. It forms an oxide PO which turns red litmus to blue. Will you call P as metals or nonmetals. Give reason for your answer.
15. Why it becomes difficult for aquatic life to survive when acid rain flows into the river ?

**One mark questions**

16. Why are some perishable foods preserved in Vinegar ?
17. Name the element common in all acids.
18. Ammonia is considered as a base although it does not contain hydroxyl ion. Why ?
19. Why does dry HCl gas not change the colour of dry litmus paper.
20. Name the sodium compound used for softening hard water.
21. Write the name and formula of a compound used for supporting fractured bones.
22. What happens when anhydrous copper sulphate is moistened with water ?
23. When a honey bee stings any part of body it causes pain and irritation.
  - (a) Name the chemical which the honey bee leaves in our body.
  - (b) Write the method by which we can get relief after a bee sting.
24. Why do we take baking soda to remove acidity ?
25. What is water of crystallisation? Give example.