

# CHEMISTRY QUESTIONS FOR CLASS 10

(Based on: Acids, Bases and Salts)

GANESH KUMAR

DATE:- 06/06/2020

---

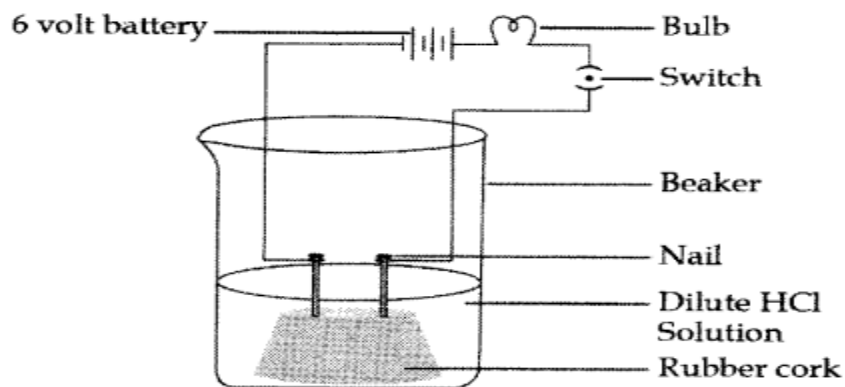
## Exemplar Questions and Solutions(1 Mark)

Question 13. Which of the following statements is correct about an aqueous solution of an acid and of a base?

- (i) Higher the pH, stronger the acid    (ii) Higher the pH, weaker the acid  
(iii) Lower the pH, stronger the base    (iv) Lower the pH, weaker the base  
(a) (i) and (iii)    (b) (ii) and (iii)    (c) (i) and (iv)    **(d) (ii) and (iv)**

**Explanation:** Reason: Stronger the acid, lesser is the pH. Stronger the base, higher is the pH.

Question 14. The apparatus given in the adjoining figure was set up to demonstrate electrical conductivity.



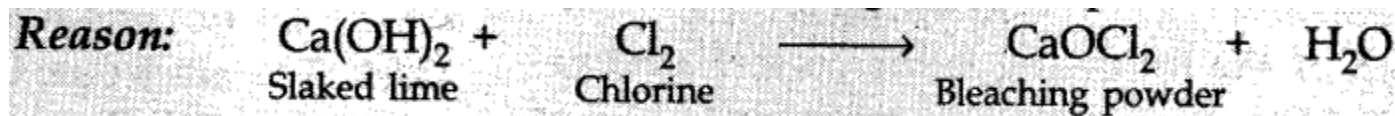
Which of the following statement(s) is (are) correct?

- (i) Bulb will not glow because electrolyte is not acidic.  
(ii) Bulb will glow because HCl is a strong acid and furnishes ions for conduction.  
(iii) Bulb will not glow because circuit is incomplete.  
(iv) Bulb will not glow because it depends upon the type of electrolytic solution.  
(a) (i) and (iii)    (b) (ii) and (iv)    **(c) (ii) only**    (d) (iv) only

Question 15. Lime water reacts with chlorine to give

- (a) bleaching powder    (b) baking powder  
**(c) baking soda**    (d) washing soda

**Explanation:**



Question 16. Nettle sting is a natural source of which acid?

- (a) Metiwanoic acid (b) Lactic acid (c) Citric acid (d) Tartaric acid

Question 17. Tooth enamel is made up of

- (a) calcium phosphate (b) calcium carbonate  
(c) calcium oxide (d) potassium

Question 18. What is the pH range of our body?

- (a) 7.0 – 7.8 (b) 7.2 – 8.0 (c) 7.0 – 8.4 (d) 7.2 – 8.4

Question 19. Rain is called acid rain when its:

- (a) pH falls below 7 (b) pH falls below 6  
(c) pH falls below 5.6 (d) pH is above 7

Question 20. Sodium hydroxide is a

- (a) weak base (b) weak acid (c) strong base (d) strong acid

**Explanation:** Reason: Sodium hydroxide ionises in water and produces a large amount of hydroxide ions.

Question 21. An aqueous solution turns red litmus solution blue. Excess addition of which of the following solution would reverse the change?

- (a) Baking powder (b) Lime  
(c) Ammonium hydroxide solution (d) Hydrochloric acid

Question 22. When copper oxide and dilute hydrochloric acid react, colour changes to

- (a) white (b) bluish-green (c) blue-black (d) black

Question 23. Sodium hydroxide is used

- (a) as an antacid (b) in manufacture of soap  
(c) as a cleansing agent (d) in alkaline batteries

Question 24. Sodium hydroxide turns phenolphthalein solution

- (a) pink            (b) yellow            (c) colourless            (d) orange

Question 25. Chemical formula of washing soda is

- (a)  $\text{Na}_2\text{CO}_3 \cdot 7\text{H}_2\text{O}$     (b)  $\text{Na}_2\text{CO}_3 \cdot 5\text{H}_2\text{O}$     (c)  $\text{Na}_2\text{CO}_3 \cdot 2\text{H}_2\text{O}$     (d)  $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$

### Fill in the blanks

1. Acids turn ..... litmus solution.....
2. pH of basic solution is always ..... than 7.
3. .... are the products obtained when bleaching powder reacts with dilute sulphuric acid.
4. Potassium nitrate has pH value equal to .....
5. .... is the fixed number of water molecules chemically attached to each formula unit of a salt in its crystalline form.
6. .... is one of the raw materials for the production of baking soda.
7. The salts of a strong acid and weak base are ..... with pH value ..... than 7.
8. Use of mild base like ..... on the bee-stung area gives relief.
9. During indigestion the stomach produces too much ..... and this causes pain and irritation.
10. The presence of .....Ca in acids is responsible for their acidic properties.
11. Mixing an acid or base with water results in decrease in the concentration of per unit volume. This process is called
12. Among HCl,  $\text{H}_2\text{SO}_4$  and  $\text{CH}_3\text{COOH}$ , ..... is a weak acid.

### Answers

- |                  |                             |   |
|------------------|-----------------------------|---|
| 1. blue, red     | 2. more/greater             | 3. $\text{CaSO}_4$ , $\text{Cl}_2$ , $\text{H}_2\text{O}$ |
| 4. 7 or seven    | 5. Water of crystallization | 6. Sodium chloride  |
| 7. acidic, less  | 8. baking soda              | 9. acid (HCl)   |
| 10. $\text{H}^+$ | 11. dilution                | 12. $\text{CH}_3\text{COOH}$                              |

\*\*\*\*\*