

# CHEMISTRY STUDY MATERIALS FOR CLASS 10

## (NCERT Based: MCQ of Chapter -02)

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### Acids, Bases and Salts

Choose the correct option:

- Sodium carbonate is a basic salt because it is a salt of
  - strong acid and strong base
  - weak acid and weak base
  - strong acid and weak base
  - weak acid and strong base**
- Calcium phosphate is present in tooth enamel. Its nature is
  - basic
  - acidic
  - neutral**
  - amphoteric
- A sample of soil is mixed with water and allowed to settle. The clear supernatant solution turns the pH paper yellowish-orange. Which of the following would change the colour of this pH paper to greenish-blue?
  - Lemon juice
  - Vinegar
  - Common salt
  - An antacid**
- Which of the following gives the correct increasing order of acidic strength?
  - Water <Acetic acid <Hydrochloric acid**
  - Water <Hydrochloric acid <Acetic acid
  - Acetic acid <Water <Hydrochloric acid
  - Hydrochloric acid <Water <Acetic acid
- If a few drops of a concentrated acid accidentally spills over the hand of a student, what should be done?
  - Wash the hand with saline solution
  - Wash the hand immediately with plenty of water and apply a paste of sodium hydrogen carbonate**
  - After washing with plenty of water apply solution of sodium hydroxide on the hand
  - Neutralise the acid with a strong alkali

6. Sodium hydrogen carbonate when added to acetic acid evolves a gas. Which of the following statements are true about the gas evolved?
- (i) It turns lime water milky                      (ii) It extinguishes a burning splinter  
(iii) It dissolves in a solution of sodium hydroxide   (iv) It has a pungent odour
- (a) (i) and (ii)**      (b) (i), (ii) and (iii)      (c) (ii), (iii) and (iv)      (d) (i) and (iv)
7. Common salt besides being used in kitchen can also be used as the raw material for making
- (i) washing soda   (ii) bleaching powder   (iii) baking soda   (iv) slaked lime
- (a) (i) and (ii)      (b) (i), (ii) and (iv)      **(c) (i) and (iii)**      (d) (i), (iii) and (iv)
8. One of the constituents of baking powder is sodium hydrogen carbonate, the other constituent is
- (a) hydrochloric acid      **(b) tartaric acid**      (c) acetic acid      (d) sulphuric acid
9. To protect tooth decay we are advised to brush our teeth regularly. The nature of the tooth paste commonly used is
- (a) acidic                      (b) neutral                      **(c) basic**                      (d) corrosive
10. 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)
11. The pH of the gastric juices released during digestion is
- (a) less than 7**      (b) more than 7      (c) equal to 7      (d) equal to 0
12. Which of the following phenomena occur, when a small amount of acid is added to water? (i) Ionisation (ii) Neutralisation (iii) Dilution (iv) Salt formation
- (a) (i) and (ii)                      **(b) (i) and (iii)**      (c) (ii) and (iii)                      (d) (ii) and (iv)
13. Which of the following substance will not give carbon dioxide on treatment with dilute acid?
- (a) Marble                      (b) Limestone      (c) Baking soda                      **(d) Lime**

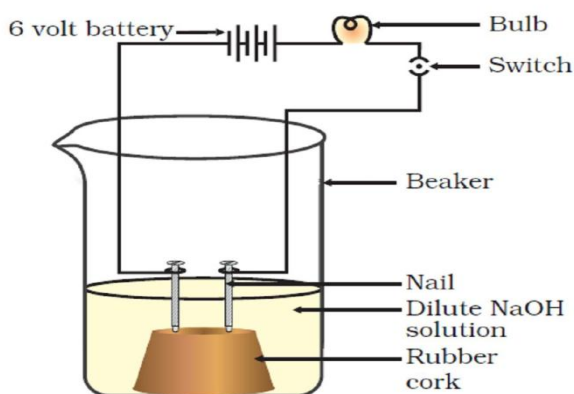
14. Which of the following is acidic in nature?

- (a) Lime juice      (b) Human blood      (c) Lime water      (d) Antacid

15. In an attempt to demonstrate electrical conductivity through an electrolyte, the following apparatus (see below Figure) was set up. Which among the following statement(s) is (are) correct?

- (i) Bulb will not glow because electrolyte is not acidic  
(ii) Bulb will glow because NaOH is a strong base 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



16. Which of the following is used for dissolution of gold?

- (a) Hydrochloric acid      (b) Sulphuric acid      (c) Nitric acid      **(d) Aqua regia**

17. Which of the following is not a mineral acid?

- (a) Hydrochloric acid      (b) Sulphuric acid      (c) Nitric acid      (d) Aqua regia

18. Which among the following is not a base?

- (a) NaOH      (b) KOH      (c)  $\text{NH}_4\text{OH}$       **(d)  $\text{C}_2\text{H}_5\text{OH}$**

19. Which of the following statements is not correct?

- (a)** All metal carbonates react with acid to give a salt, water and carbon dioxide  
**(b)** All metal oxides react with water to give salt and acid  
(c) Some metals react with acids to give salt and hydrogen  
**(d)** Some non metal oxides react with water to form an acid

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