2. When hydrogen chloride gas is prepared on a humid day, the gas is usually passed through the guard tube containing calcium chloride. The role of calcium chloride taken in the guard tube is to

(a) absorb the evolved gas

(b) moisten the gas

(c) absorb moisture from the gas

(d) absorb Cl^- ions from the evolved gas

3. Which one of the following salts does not con-tain water of crystallisation?

(a) Blue vitriol

(b) Baking soda

(c) Washing soda

(d) Gypsum

4. In terms of acidic strength, which one of the following is in the correct increasing order?

(a) Water < Acetic acid < Hydrochloric acid

(b) Water < Hydrochloric acid < Acetic acid

(c) Acetic acid < Water < Hydrochloric acid

(d) Hydrochloric acid < Water < Acetic acid

5. What is formed when zinc reacts with sodium hydroxide?

(a) Zinc hydroxide and sodium

(b) Sodium zincate and hydrogen gas

(c) Sodium zinc-oxide and hydrogen gas

(d) Sodium zincate and water

6. Tomato is a natural source of which acid?

(a) Acetic acid

(b) Citric acid

(c) Tartaric acid

(d) Oxalic acid

7. Brine is an

(a) aqueous solution of sodium hydroxide

(b) aqueous solution of sodium carbonate

(c) aqueous solution of sodium chloride

(d) aqueous solution of sodium bicarbonate

8. $Na_2CO_3 . 10H_2O$ is

(a) washing soda

(b) baking soda

(c) bleaching powder

(d) tartaric acid

9. At what temperature is gypsum heated to form Plaster of Paris?

(a) 90°C

(b) 100°C

(c) 110°C

(d) 120°C

10. How many water molecules does hydrated cal-cium sulphate contain?

(a) 5

(b) 10

(c) 7

(d) 2

11. Sodium carbonate is a basic salt because it is a salt of a

(a) strong acid and strong base

(b) weak acid and weak base

(c) strong acid and weak base

(d) weak acid and strong base

12. Alkalis are

(a) acids, which are soluble in water

(b) acids, which are insoluble in water

(c) bases, which are insoluble in water

(d) bases, which are soluble in water

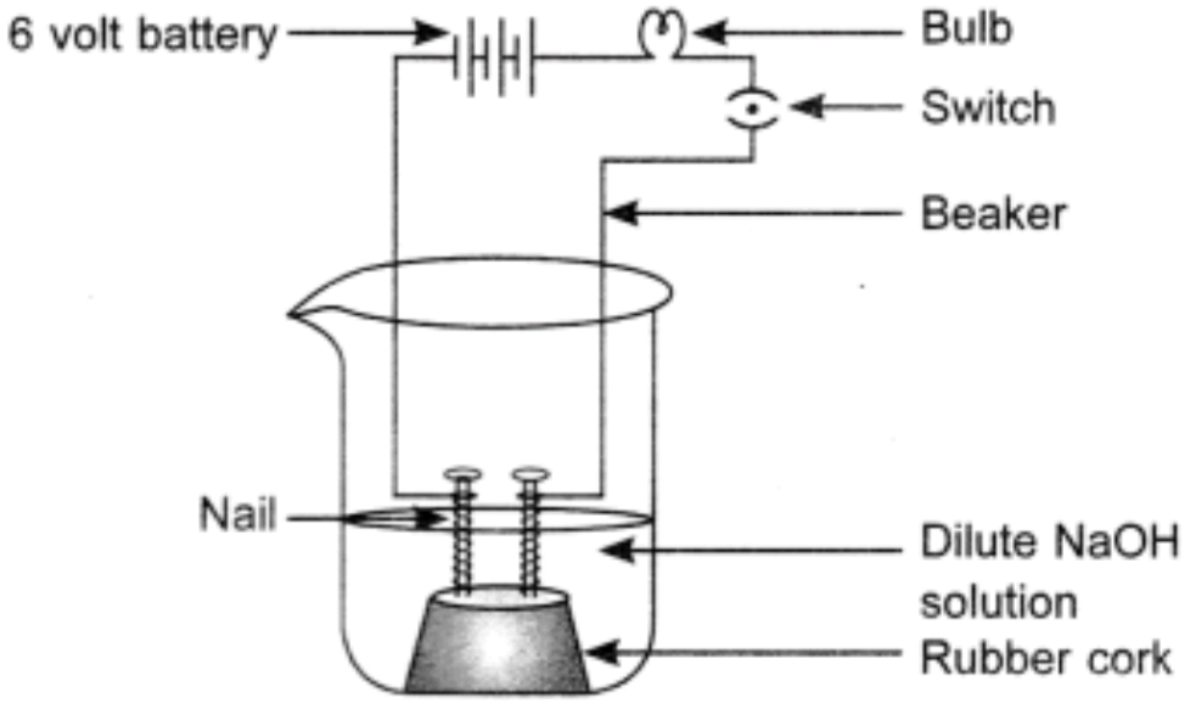
13. Which of the following statements is correct about an aqueous solution of an acid and of a base?

(i) Higher the pH, stronger the acid

(ii) Higher the pH, weaker the acid

(in) Lower the pH, stronger the base

(iv) Lower the pH, weaker the base



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

15. Lime water reacts with chlorine to give

(a) bleaching powder

(b) baking powder

(c) baking soda

(d) washing soda

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

(a) MetiWanoic acid

(b) Lactic acid

(c) Citric acid

(d) Tartaric acid

17. Tooth enamel is made up of

(a) calcium phosphate

(b) calcium carbonate

(c) calcium oxide

(d) potassium

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

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

20. Sodium hydroxide is a

(a) weak base

(b) weak acid

(c) strong base

(d) strong acid

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

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

(a) white

(b) bluish-green

(c) blue-black

(d) black

23. Sodium hydroxide is used

(a) as an antacid

(b) in manufacture of soap

(c) as a cleansing agent

(d) in alkaline batteries

24. Sodium hydroxide turns phenolphthalein solution

(a) pink

(b) yellow

(c) colourless

(d) orange

25. Chemical formula of washing soda is

(a) $Na_2C0_3 . 7H_2O$

(b) $Na_2C0_3 . 5H_2O$

(c) $Na_2C0_3 . 2H_2O$

(d) $Na_2C0_3 . 10H_2O$

- Question 1

  Assertion (A): Antacids are used to get rid of pain caused by indigestion.

  Reason (R) : Antacids neutralise the excess acid produced in the stomach.

- Question 3

  Assertion (A): The strength of acids and bases depends on the number of H^+ ions and OH^- ions produced.

  Reason (R) : The process of dissolving an acid or base in water is highly endothermic.

- Question 3

  Assertion (A): The strength of acids and bases depends on the number of H^+ ions and OH^- ions produced.

  Reason (R) : The process of dissolving an acid or base in water is highly endothermic.

- Question 4

  Assertion (A): When pH of rain water is more than 7, it is called acid rain.
  Reason (R) : When electricity is passed through an aqueous solutions of sodium chloride, it decomposes to form H_2 and Cl_2 gases.

- Question 5

  Assertion (A): The important products from chloro-alkali process are hydrogen, chlorine and sodium hydroxide.

  Reason (R) : Baking powder is a mixture of baking soda and citric acid.

- Question 6

  Assertion (A): Washing soda is sodium carbonate hexahydrate.

  Reason : Chlorine gas is used for the preparation of bleaching powder.

  View Solution

- Question 7

  Assertion (A): Copper sulphate crystals which seem to be dry contain water of crystallisation.

  Reason (R) : Plaster of Paris is $CaSO_4.\ \frac{3}{2}H_2O.$

- Question 8

  Assertion (A): Plaster of Paris is used in toys, material for decoration and for making surfaces smooth.
  Reason (R) : Bleaching powder is used for making drinking water free from germs.

- Question 9

  Assertion (A): Salt of a strong acid and strong base have a pH less than 7.

  Reason (R) : Seawater contains many salts dissolved in it.