

CBSE Class 10 Science Important Questions for Chapter 2 Acids Bases and Salts

Class 10 Science Chemical Reaction and Equations MCQs (1 Markers)

1. Which of the following gives the correct increasing order of acidic strength?

- a) Water < Acetic acid < Hydrochloric acid
- b) Water < Hydrochloric acid < Acetic
- c) Acetic acid < Water < Hydrochloric acid
- d) Hydrochloric acid < water < Acetic acid

2. Which of the following salts does not contain water of crystallisation?

- a) Blue vitriol
- b) Baking soda
- c) Gypsum
- d) Washing soda

3. Common salt, besides 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) and iii)
 - c) i), ii) and iii)
 - d) i), iii) and iv)

4. The acid having highest hydrogen ion concentration is one with

- a) pH=2.5

b) pH = 1.8

c) pH=7

d) pH=10

5. The pH of gastric juices released during digestion is:

a) less than

b) more than

c) equal to

d) equal to 0

Ans:

a) 2. b) 3. c) 4. b) 5. a)

Assertion Questions Type Questions

The following questions consists of two statements:

Assertion (A) and Reason(R). Answer these questions selecting appropriate option given below:

a) Both A and R are true and R is correct explanation of A

b) Both A and R are true and R is not correct explanation of A

c) A is true but R is false

d) A is false but R is true

1. Assertion (A) – The aqueous solutions of glucose and alcohol do not show acidic character.

Reason (R) – Aqueous solutions of glucose and alcohol do not give H⁺ ions.

Ans:. a) Both A and R are true and R is correct explanation of A

2. Assertion (A) – Carbonic acid is weak acid.

Reason (R) – It ionized completely in aqueous solution.

Ans: c) A is true but R is false

Acids Bases and Salts Important Question of 1 Marks Very Short Answer Questions

1. Write the name of the products formed by heating gypsum at 373K. Write one use of it.

Ans: Plaster of Paris and water. It is used for plastering fractured bones.

2. Write the chemical name and formula of the compound which is used as an antacid.

Ans: Sodium bicarbonate, NaHCO_3

Acids Bases and Salts Important Question of 2 Marks Short Answer Type Questions

1. Given below are the pH values of different liquids. 7.0, 14.0, 4.0, and 2.0. Which of these could be that of

- a) Lemon Juice
- b) Distilled Water
- c) Sodium Hydroxide Solution
- d) Tomato Juice

Ans: a) lemon juice – 2.0 b) distilled water – 7.0 c) sodium hydroxide solution – 14.0 d) tomato juice – 4.0

2. What is baking powder? How does it make the cake soft and spongy?

Ans: Baking powder is a mixture of sodium hydrogen carbonate and tartaric acid. On heating it liberates CO_2 which makes the cake soft and spongy

Acids Bases and Salts Important Question of 3 Marks Short Answer Type Questions

1. Write the chemical name of Plaster of Paris. Write a chemical equation to show the reaction between Plaster of Paris and water. Name the compound produced in this reaction.

Ans: Calcium Sulphate hemihydrate. $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O} + \frac{1}{2}\text{H}_2\text{O} \rightarrow \text{CaSO}_4 \cdot \text{H}_2\text{O}$

The compound produced is Gypsum

2. A gas X reacts with lime water and forms a compound Y which is used as a bleaching agent in the chemical industry. Identify X and Y. Give the chemical equation of the reaction involved.

Ans: X is chlorine Y is CaOCl_2 (calcium oxy chloride) used as a bleaching agent. $\text{Ca}(\text{OH})_2 + \text{Cl}_2 \rightarrow \text{CaOCl}_2 + \text{H}_2\text{O}$

Acids Bases and Salts Important Question of 5 Marks Very Long Answer Type Questions

- 1. a) A milkman adds a very small amount of baking soda to fresh milk. Why does he shift the pH of the fresh milk from 6 to slightly alkaline?
- b) Mention pH range within which our body works?

c) Explain how antacids give relief from acidity.

d) Mention the nature of toothpastes. How do they prevent tooth decay?

Ans: a) It is done to prevent the formation of lactic acid which spoils the milk

b) pH range 7.0 – 7.8

c) Antacids neutralizes excess acid in our body and gives relief.

d) Basic. Neutralize the acid formed in the mouth

2. a) Crystals of a substance changed their color on heating in a closed test tube but regained it after some time when they were allowed to cool down. Name the substance and write its formula. Explain the phenomenon.

b) How is sodium carbonate prepared? Give two uses of the compound

Ans: a) Copper sulphate, $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$. It is blue. It becomes white on heating due to loss of water molecules.



It regains its colour by absorbing water from atmosphere $\text{CuSO}_4 + 5 \text{H}_2\text{O} \rightarrow \text{CuSO}_4 \cdot 5\text{H}_2\text{O}$

b) Prepared by passing CO_2 through ammoniacal brine Used for production of washing powder & manufacture of glass