

CLASS VII

Acid, bases and salts

1.

Match the following	
Hydrochloric acid	basic
Carbonic acid	HCl
Milk contains	tartaric acid
Sodium hydroxide is	H ₂ CO ₃
Grapes contain	lactic acid
Ascorbic acid	Acids
Corrosive in nature	Vitamin C
Vinegar is	Hydrogen gas
Acid is added to Zinc	Acidic

2. Which of the following statements are correct?

- i. Bases are corrosive in nature and have a sour taste.
- ii. Acids are commonly classified as Inorganic and Organic acids
- iii. Inorganic acids occur naturally in fruits and vegetables.
- iv. Bases react with acids and form salt and water.
- v. Citrus fruits contain lactic acid.
- vi. Milk of magnesia is magnesium carbonate.

3. Give one word answer for the following:

1. Acids turn blue litmus red. Compounds which are sour in taste.
2. Colourless gas produced when carbonates react with acids.
3. Substances that turn red litmus blue.
4. An acid present in vitamin C.
5. Substances used for testing acid and bases.
6. An example of a neutral substance.
8. An Antacid commonly used

4. State whether the following statements are true/false and correct the false statement.

- i. Acids are bitter in taste.
- ii. Baking soda is an acid.
- iii. Water is a neutral substance.
- iv. Bases are substances which are sour in taste and corrode metals.
- v. Acids present in fruits and vegetables are called mineral acids.
- vi. Sodium hydroxide turns blue litmus red.
- vii. Water soluble bases are called alkalis.
- viii. Antacids are the medicines which help to cure indigestion.
- ix. Sting of an ant contains acetic acid.
- x. Acids are soapy to touch

5. Tick the correct answer:

- (i) One of the following is not a mineral acid

- a. Acetic acid
- b. Lactic acid
- c. Sulphuric acid
- d. Citric acid

(ii) Red litmus turns blue in the presence of

- a. An acid
- b. A base
- c. A salt
- d. All of them

(iii) Citric acid is present in

- a. Lemons
- b. Bee sting
- c. Curd
- d. Turmeric

(iv) Bases are

- a. Soapy to touch
- b. Bitter in taste
- c. Water soluble bases are called alkalis
- d. All of these

(v) Neutralization reaction results in the formation of

- a. Salt
- b. Salt and water
- c. Water
- d. Acid and water

(vi) Which of the following can be used to neutralize a base

- a. Common salt
- b. Vinegar
- c. Baking soda
- d. Water

(vii) Which of the following properties is not common to all acids

- a. Sour taste
- b. Turns blue litmus red
- c. Reacts with a base to form salt and water
- d. Turns phenolphthalein pink

6. Fill in the blanks using appropriate words from the box:

1. _____ is a substance which produces hydrogen ions [H⁺] when dissolved in water.
2. Acids react with _____ to form hydrogen gas and a salt.
3. **Acids react with _____ to form a salt and water. This process is called _____**
4. _____ occur naturally in fruits and vegetables.
5. A _____ is a substance which when added to water produces hydroxide ions (OH⁻).
6. _____: A dye extracted from various species of lichen that changes colour in acidic and basic medium.
7. A _____ results when an acid reacts with a base.
8. Acids react with _____ to form carbon dioxide gas, water and a salt.

Acid , metal carbonates, alkalis, salt , metals, neutralization, Bases , litmus, base.

7. Complete the given table as per the example shown below:

s.no	Test solution	Indicator which can be used	Initial colour of the test solution	Final colour of the test solution
1	Lemon juice	Blue litmus	Colourless	Red
2	Vinegar		Colourless	
3	Milk of magnesia	phenolphthalein	White	
4	Soda water			Red
5	Baking soda solution		Colourless	Blue
6	Orange juice	Blue litmus	Orange	
7	Soap solution		Colourless	Magenta
8	Shampoo (dil. Solution)	Turmeric solution	Colourless	
9	Eno fruit salt	phenolphthalein		

8. Differentiate between:

- i. Acids and bases
- ii. Mineral acids and organic acids
- iii. Bases and alkalis

9. Answer these questions in brief:

- i. Name two mineral acids.
- ii. How does an acid taste?
- iii. Name the acid present in milk
- iv. Why is it dangerous to play with acids?
- v. Name the gas produced when acids react with metals.
- vi. Write any two uses of acids.
- vii. Mention the colour change when blue litmus is added to an acid?
- viii. Name the products of neutralization reaction

10. Answer these questions in detail:

- i. Define acids and bases citing two examples for each of them.
- ii. Mention any four properties of acids
- iii. What are indicators? Give two examples along with their colour changes in acids and bases.
- iv. Is baking powder acidic, basic or neutral? How would you justify your answer.
- v. Write two uses each of acids and bases.
- vi. Define neutralization reaction. Give an example.
- vii. What should be done to get relief from a bee sting and why?
- viii. Why should we regularly brush our teeth at night
- ix. Why do turmeric stains on clothes turn red when washed with soap?