

INTERNATIONAL INDIAN SCHOOL DAMMAM

MIDDLE SECTION

MID TERM EXAM WORKSHEET (2025-26)

CLASS: VII

Subject: General Science

L2- EXPLORING SUBSTANCES: acidic, basic and neutral

I Fill in the Blanks:

1. _____ is an example of a natural acid found in lemon juice.
2. Substances that feel soapy to touch and turn red litmus blue are called _____.
3. The acid present in vinegar is _____ acid.
4. A substance that is neither acidic nor basic is called _____.
5. _____ is used as a natural indicator and is extracted from lichens.
6. When blue litmus is dipped in an acidic solution, it turns _____.
7. Turmeric turns _____ when added to a basic substance.
8. _____ is a mineral acid commonly found in laboratories.
9. The acid found in our stomach is _____ acid.
10. Baking soda is a _____ substance used in cooking.
11. Substances that taste sour are usually _____ in nature.

II Multiple choice questions

1. Which of the following substances is acidic in nature?
a. Formic acid b. Soap solution c. Baking soda d. Sugar solution
2. A solution that turns blue litmus red is:
a. Neutral b. Basic c. Acidic d. Salty
3. Which one of the following will turn red litmus paper blue?
a. Vinegar B. Lemon juice c. Detergent solution d. Orange juice
4. Which of the following is a natural indicator?
a. Salt b. Lichen c. Litmus d. Acid
5. Which of these is used to test whether a substance is acidic or basic?
a. Water b. Indicator c. Sugar d. Oil
6. Which of the following substances is an example of olfactory indicators?
a. Soap solution b. Vinegar c. Onion d. Curd
7. An ant bite causes pain because it injects:
a. Base b. Water c. Acid d. Oil
8. Colour of the red rose extract in acidic solution:
a. Red b. Pink c. Green d. Yellow

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III Name the following:

1. Solution of calcium hydroxide in water: _____.
2. Indicators made in the Laboratories: _____.
3. A Golden spice, which is used in several traditional home remedies: _____.
4. Known as the Father of Modern Indian Chemistry: _____.
5. Reaction between acid and base: _____.

IV Assertion and reason:

Use the following key to choose the appropriate answer.

- (a) Both A and R are true and R is the correct explanation of A.
 - (b) Both A and R are true but R is not the correct explanation of A.
 - (c) A is true but R is false.
 - (d) A is false but R is true
1. ASSERTION: All salts are neutral in nature.
REASON: Salts are formed from the neutralization of acids and bases.
 2. ASSERTION: Onion is an example of olfactory indicator.
REASON: Litmus is a natural dye and is extracted from lichens.
 3. ASSERTION: Sugar is a neutral substance.
Reason: A sugar solution turns red litmus blue.

V Case study : Lemon Juice and Marble

Rohit was helping his mother in the kitchen when she accidentally spilled some lemon juice on the marble kitchen slab. After a few minutes, they noticed that the marble surface had become dull where the juice had fallen. Rohit's mother explained that lemon juice contains an acid called citric acid, and marble contains calcium carbonate. The acid reacted with the marble, leading to its dullness. Curious, Rohit decided to test other kitchen substances using turmeric paper. He prepared turmeric strips and tested vinegar, baking soda solution, soap solution, and curd.

Answer the following questions:

1. What is neutralization reaction?
2. Which substances tested by Rohit are acidic and which are basic?
3. Rohit observed that turmeric paper turned reddish-brown with baking soda solution. What does this tell you about baking soda?
4. If Rohit had used litmus paper instead of turmeric paper, what would he observe when testing vinegar and soap water?

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L 3 - ELECTRICITY- Circuits and their components

I Fill in the blanks

1. The direction of electric current in an electrical circuit is taken to be from the _____ to the _____ terminal of the electric cell.
2. The glowing thin wire is called the _____ of the lamp.
3. An electric cell has two terminals- one is called _____ while the other is _____
4. _____ is a device used in the electrical circuit to open (OFF) or close (ON) the circuit.
5. Materials through which electric current can flow easily are called _____ or conductors of electricity.
6. Materials through which current cannot pass through are called _____ or poor conductors of electricity.
7. In a fused incandescent lamp, _____ stops the flow of current, preventing the lamp from glowing.

II Choose the correct answer

1. Which of the following is a good conductor of electricity?
(a) Rubber (b) Plastic (c) Copper (d) Glass
2. What is the main function of a switch in a circuit?
(a) To generate electricity (b) To control the flow of electricity
(c) To measure the current (d) To store electricity
3. What happens when you connect a cell to a bulb through wires?
(a) The bulb stops working (b) The bulb lights up
(c) The cell gets charged (d) The wires get hot
4. What kind of material is used to make wires in electrical circuits?
(a) Plastic (b) Wood (c) Copper (d) Glass
5. Which of the following is an example of a circuit?
(a) A battery (b) A bulb (c) A wire (d) A battery connected to a bulb through wires
6. What is a closed circuit?
(a) A circuit with an open switch (b) A circuit with a broken wire
(c) A circuit where the current flows continuously (d) A circuit with no battery
7. What is a battery?
(a) A device that measures voltage (b) A device that stores electricity
(c) A device that generates heat (d) A device that controls the flow of electricity

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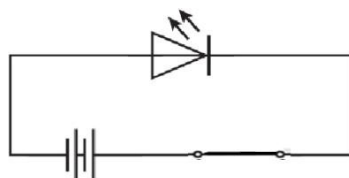
Subject: General Science

III Read the following Assertion and Reasons and choose the correct statement from the given options.

- a) Both A and R are true, and R is the correct explanation of A.
 - b) Both A and R are true, but R is not the correct explanation of A.
 - c) A is true, but R is false.
 - d) A is false, but R is true.
1. **Assertion (A):** A bulb lights up when only one of its terminal is connected to one terminal of the electric cell and the other terminal of the bulb to the other terminal of the cell.
Reason (R): A complete circuit is required for electric current to flow.
2. **Assertion (A):** Silver, copper and gold are the best electrical conductors but electrical wires are made of copper only.
Reason (R): Copper has comparatively lower cost and abundant supply.

IV Case Study: Read the situation and answer the following questions

Neha was given two cells, a switch, few connecting wires and an LED to make a simple circuit. She made the circuit as represented in the circuit diagram given below, but the LED did not glow.



- 1. What is a circuit diagram?
- 2. What is the direction of flow of electric current?
- 3. The LED did not glow in this circuit. Explain why?
- 4. Make a proper circuit diagram and help Neha to correct her circuit.

L 5 – CHANGES AROUND US – physical and chemical

I. Fill in the blanks

- 1. _____ & _____ are the two kinds of general changes that take place in our surroundings.
- 2. Magnesium ribbon when burns in oxygen produce _____.
- 3. Turning limewater milky is the standard test of _____.
- 4. Boiling of water to form steam is _____ change.
- 5. The reaction of baking soda with vinegar produces _____ gas.

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6. Three requirements for the combustion process to occur are _____, _____ and _____.

7. The lowest temperature at which a substance catches fire is _____.

II. Name the following

1. Substances that undergo combustion reactions are called _____.
2. The type of light production in living organisms without heat is called _____.
3. The red coloured layer formed in basalt (black coloured rock) is due to _____.
4. Another name for chemical change.
5. Common name of Sodium Hydrogen Carbonate.
6. A change in which one or more new substances are formed.
7. A brownish film acquired on Iron when kept open.

III. Multiple choice questions

1. The process of movement of soil or sediments from one location to another by wind or water is called _____.
a) Weathering b) Rusting c) Soil erosion
2. All new substances are formed as a result of _____.
a) Physical change b) Chemical change c) None of these
3. When CO_2 is passed through lime water _____ is formed.
a) Calcium hydroxide b) Calcium Carbonate c) Sodium Carbonate
4. The properties such as shape, size and state of a substance are its _____ properties.
a) Physical b) Chemical c) None of these
5. _____ change is irreversible and permanent.
a) Physical b) Chemical c) Both
6. _____ affects Iron articles and slowly destroys them.
a) Galvanisation b) Rusting c) Burning

IV Give the chemical name of

- | | |
|----------------|---------------|
| 1. Baking soda | 3. Vinegar |
| 2. Rust | 4. Lime water |

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V Complete the equations

1. Magnesium + _____ → Magnesium oxide + _____ + _____.
2. Vinegar + Baking soda → _____ + other substances
3. Carbon dioxide + lime water → _____ + water

VI Classify as physical and chemical changes

- | | |
|--------------------|------------------------------------|
| 1. Melting of wax | 5. Dissolving common salt in water |
| 2. Photosynthesis | 6. Digestion of food |
| 3. Rusting of iron | 7. Condensation of water |
| 4. Cutting of wood | 8. Stretching of rubber band |

VII The questions below consist of an Assertion and a Reason. Use the following key to choose the appropriate answer.

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true

1. Assertion (A): Curdling of milk is a chemical change.

Reason (R): Curd cannot be converted back into milk.

2. Assertion (A): It is advised to wrap a blanket around the person, if his clothes catch fire.

Reason (R): While wrapping carbon dioxide is produced and extinguishes fire.

VIII Case study

The properties that can be observed and specified like colour, shape size and state are the physical properties of a substance. In physical changes, changes occur without a change in composition and no change in the chemical nature of the substance. Ice, water and water vapour all look different and display different physical properties but are chemically same. Burning is a chemical change in which one substance reacts with another to undergo a change in chemical composition. Chemical change brings change in the chemical properties and we get a new substance.

Answer the following questions

1. Name two desirable changes.
2. Identify the physical and chemical changes that take place when a candle burns.
3. _____ change is reversible and temporary.
4. Decomposition of food can be desirable in some situations. Justify.

L 9 - Life Processes in Animals

I Fill in the blanks

1. The body part where undigested food is stored temporarily before being removed is the _____.
2. The largest gland in the body is _____.

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3. The dome-shaped muscle that helps in breathing is _____.
4. In birds, food is broken down by the contraction and relaxation of _____.
5. The process of breaking down complex food into simpler forms called _____
6. The process of initial breakdown of food into fine pieces is called _____
7. Saliva helps to break down _____ into sugar.
8. _____ churns food and mixes it with digestive juices.
9. The condition in which the body reacts to gluten is _____.
10. The _____ absorbs water and salts from the undigested food.
11. Animals obtain energy from food by the process of _____
12. The stage of frog breathes through gills is _____
13. People in Ladakh practice _____ breathing to improve lung function and stay warm.
14. Earthworms use their _____ for the exchange of oxygen and carbon dioxide.
15. Breathing is a _____ process while respiration is a _____ process.

II Give one word answers

1. Which gas turns lime water milky when exhaled air is blown into it?
2. Who discovered the working of stomach in human body?
3. What type of substance is bile juice in nature?
4. In which part of the alimentary canal does the food get absorbed into the blood?
5. What is the longest part of the alimentary canal?
6. What is the process of removing waste through the anus called?
7. Where does the exchange of gases take place in the lungs?
8. What virus caused breathing difficulties during the pandemic COVID - 19?
9. What type of smoking affects non-smoker?
10. Which system transports nutrients and oxygen to all parts of the body?

III Read the following Assertion and Reasons and choose the correct statement from the given options.

- a) Both A and R are true, and R is the correct explanation of A.
- b) Both A and R are true, but R is not the correct explanation of A.
- c) A is true, but R is false.
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1. **Assertion (A):** Exhaled air turns lime water milky.
Reason (R): Exhaled air contains more carbon dioxide than inhaled air.
2. **Assertion (A):** The large intestine absorbs most of the nutrients from the undigested food.
Reason (R): The large intestine primarily absorbs water and some salts from undigested food.
3. **Assertion (A):** When you chew chapati for a long time, it begins to taste sweet.
Reason (R): Saliva contains a digestive juice that helps break down starch into sugar.
4. **Assertion (A):** Animals need oxygen for respiration.
Reason (R): Oxygen is required to break down food and release energy.

IV Case Study: Read the situation and answer the following questions

1. Rohan had a habit of eating his food very fast without chewing properly. One day, he complained of stomach ache and a feeling of heaviness. His mother took him to the doctor. The doctor asked about his eating habits and explained that digestion begins in the mouth, where food is broken down mechanically by teeth and chemically by saliva. If food is not chewed well, the stomach has to work harder to digest it, leading to discomfort. The doctor also advised him to include fibre-rich foods in his diet to improve digestion and prevent constipation.

1. **Why is it important to chew food properly before swallowing?**
2. **Which part of the digestive system is responsible for the absorption of nutrients?**
3. **What role does saliva play in digestion?**
4. **Why did the doctor suggest fibre-rich foods to Rohan?**

2. Rahul participated in a running race during the lunch break. After finishing the race, he and his friends noticed that they were all breathing heavily. Rahul asked his Science teacher the reason behind this. The teacher explained that during physical activity, the body requires more energy. This energy is released through the process of respiration. To meet the increased oxygen demand for producing energy, the breathing rate increases

1. **Why were Rahul and his friends breathing heavily after the race?**
2. **What are the tiny air sacs in the lungs called where gas exchange occurs?**
3. **Why is oxygen important in respiration?**
4. **Name the muscular structure that helps in breathing by moving up and down.**