

1. What is a physical change? Give examples. [2]

**Ans** \_\_\_\_\_  
\_\_\_\_\_

2. What is a chemical change? Give examples [2]

**Ans.** \_\_\_\_\_  
\_\_\_\_\_

3. Give an example of a chemical change in which we observe change in colour during the reaction. [2]

**Ans** \_\_\_\_\_  
\_\_\_\_\_

4. Why does rusting take place faster near the coastal areas? [2]

**Ans** \_\_\_\_\_  
\_\_\_\_\_

5. Classify the following changes as physical or chemical change: [3]

- (i) Rusting of iron \_\_\_\_\_
- (ii) Burning of crackers \_\_\_\_\_
- (iii) Digestion of food \_\_\_\_\_
- (iv) Melting of ice \_\_\_\_\_
- (v) Chopping of wood \_\_\_\_\_
- (vi) Respiration \_\_\_\_\_
- (vii) Growing of a seed into a plant \_\_\_\_\_
- (viii) Dissolving sugar in water \_\_\_\_\_

6. Give one standard test for Carbon Dioxide. Also write the equation involved. Is it a physical or a chemical change? [3]

**Ans** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. Define galvanisation. Why are the iron pipes in our homes galvanized? [3]

**Ans.** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. Write three differences between a physical and a chemical change. [3]

Ans. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. What do you observe when you mix vinegar and baking soda? How do you perform a test for the gas released during the reaction? [3]

Ans. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. State four characteristics of a physical change. [3]

Ans \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

11. State four characteristics of a chemical change. [3]

Ans \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

12. Define rusting. What are the conditions necessary for rusting? What is its chemical formula [5]

Ans \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

13. Explain two methods by which rusting of iron can be prevented. [5]

Ans \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## 1. Fill in the blanks

1) Large crystals of pure substances are obtained by \_\_\_\_\_ [1]

2) Rotation of fan is \_\_\_\_\_ change. [1]

3) A glowing of tube light is a \_\_\_\_\_ [1]

- 4) Chemical name of washing soda is \_\_\_\_\_ [1]
- 5) Rusting is faster in \_\_\_\_\_ water. [1]
- 6) Two methods by which rusting can be prevented by \_\_\_\_\_ and \_\_\_\_\_ [1]
- 7) Fermentation of fruit juice is a \_\_\_\_\_ change. [1]
- 8) \_\_\_\_\_ is the process of coating of thin layer of zinc on iron sheets. [1]
- 9) Changes in which new substance are formed are called \_\_\_\_\_ changes. [1]
- 10) Chemical formula of copper sulphate is \_\_\_\_\_ [1]
- 11) Large crystals of pure substances are obtained by \_\_\_\_\_ [1]

**2. Identify the following as physical or chemical changes.**

- (i) NaCl dissolves in water. \_\_\_\_\_ [1]
- (ii) Silver tarnishes \_\_\_\_\_ [1]
- (iii) An apple is cut \_\_\_\_\_ [1]
- (iv) Heat changes water to steam \_\_\_\_\_ [1]
- (v) Baking soda reacts to vinegar \_\_\_\_\_ [1]
- (vi) Fe (Iron)rusts \_\_\_\_\_ [1]
- (vii) Ice melts \_\_\_\_\_ [1]
- (viii) Milk sours \_\_\_\_\_ [1]
- (ix) Sugar dissolves in water \_\_\_\_\_ [1]
- (x) Food is digested \_\_\_\_\_ [1]

**3. Complete the following**

- (a) Magnesium + Oxygen → \_\_\_\_\_ [1]
- (b) Magnesium oxide + Water → \_\_\_\_\_ [1]
- (c) copper sulphate + Iron → \_\_\_\_\_ [1]
- (d) Sulphuric acid + Baking soda → \_\_\_\_\_ [1]
- (e) Carbon dioxide + Lime water → \_\_\_\_\_ [1]

**4. Match the following** [2]

Column A

Column B

- |                         |                     |
|-------------------------|---------------------|
| 1) Milk changes to curd | slow change         |
| 2) Temporary change     | irreversible change |
| 3) Change of season     | physical change     |

4) Rusting of iron

can be compressed easily

5) Air

chemical change

5. Give reason in brief.

Boiling of water, a chemical change.

[2]

Ans

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Copper sulphate turns green when Iron nails are left in it stay for thirty minutes.

[2]

Ans

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Painting prevent rusting.

[2]

Ans

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6. Answer the following questions (40-50 words)

I. What happened when carbon dioxide is passed through lime water?

[3]

Ans.

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II. How would you show that setting of curd is a chemical change?

[3]

Ans

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III. When washing soda is mixed with lemon juice, bubbles are formed with the evolution of gas.

What type of change is it. Explain?

[3]

Ans

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IV. Explain why burning of wood and cutting it in to small piece are considered as two different types of changes?

[3]

Ans

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V. How melting of wax is different from burning of wax? [3]

Ans

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VI. What is crystallization? How do people get salt from the sea in hot countries? [3]

Ans

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VII. Describe how crystals of copper sulphate are prepared? [3]

Ans.

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7. Answer the following questions (50-60 words)

1. When iron nail is put in to a beaker containing copper sulphate solution, the blue colour of the Solution slowly change in to Green - [5]

- a) Why does the colour of the solution change?
- b) Write the equation involved in this process?
- c) Is it a chemical or physical change?

Ans

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2. How would you prove that breaking down of ozone layer and the process of photosynthesis are Chemical changes? [5]

Ans

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3. Burning of a candle may be considered as showing physical and chemical changes occurring

simultaneously Explain?

[5]

**Ans**

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