

Class Notes

Class : VIII

Topics: Materials: Metals and Non- metals
(Write in Note – Book)

Subject: Science

Materials: Metals and Non- metals

1. Which of the following can be beaten into thin sheets?

Ans: Zinc

2. Which of the following statements is correct?

Ans: Generally, metals are ductile

3. Fill in the blanks.

(a) Phosphorus is a very _____ non-metal.

(b) Metals are _____ conductors of heat and _____

(c) Iron is _____ reactive than copper.

(d) Metals react with acids to produce _____ gas.

Ans:

(a) reactive

(b) good, electricity

(c) more

(d) hydrogen

4. Mark 'T' if the statement is true and 'F' if it is false.

(a) Generally, non-metals react with acids.

(b) Sodium is a very reactive metal.

(c) Copper displaces zinc from zinc sulphate solution.

(d) Coal can be drawn into wires.

Ans:

(a) False

(b) True

(c) False

(d) False

8. Match the substances given in column A with their uses given in column B.

Ans: Answer:

(i) (d)

(ii) (e)

- (iii) (c)
- (iv) (f)
- (v) (b)
- (vi) (a)

10. Saloni took a piece of burning charcoal and collected the gas evolved in a test tube.

(a) How will she find the nature of the gas?

(b) Write down the word equations of all the reactions taking place in this process.

Ans:

(a) She can find the nature of the gas by using a wet litmus paper. After bringing the litmus paper in contact with the gas, if it turns the blue litmus paper into red, it is acidic. Similarly, if it turn the red litmus into blue, it is basic.

(b) (i) Carbon + Oxygen \rightarrow Carbon dioxide

(ii) Carbon dioxide + Lime water \rightarrow Milky

11. One day Reeta went to a jeweller's shop with her mother. Her mother gave an old gold jewellery to the goldsmith to polish. Next day when they brought the jewellery back, they found that there was a slight loss in its weight. Can you suggest a reason for the loss in weight?

Ans: The gold jewellery is dipped into an acidic solution called aqua regia (a mixture of hydrochloric acid and nitric acid) for polishing. On dipping the gold jewellery in the acid solution, the outer layer of gold dissolves and the inner shiny layer appears. This causes a slight loss in its weight.

EXTRA QUESTIONS AND ANSWERS

Class: 8th

CHAPTER – METAL & NON METALS

Subject: Science

(TO BE WRITTEN IN NOTEBOOK)

Question. 1

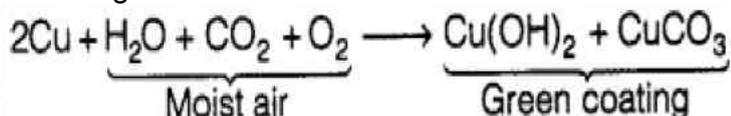
Which of the following metals can displace the other two metals from their salt solutions? Zinc, iron, copper

Answer. Zinc is most reactive among three metals and copper is least-reactive metal. Reactivity of iron is in between zinc and copper. So, zinc metal can displace the other two metals from their salt solutions.

Question. 2

Paheli bought a statue made up of copper. To her surprise, it acquired a dull green coating after a couple of months. Explain the reason.

Answer. When a copper statue (or copper vessel) is exposed to moist air for long, it acquires a dull green coating. The green material is a mixture of copper hydroxide [Cu(OH)₂] and copper carbonate (CuCO₃) formed due to the reaction of copper with moist air. The following is the reaction.



The green coating is commonly known as 'basic copper carbonate' and the formation of green coating on copper objects show the corrosion of copper.

Question. 3

A doctor prescribed a tablet to a patient suffering from iron deficiency. The tablet does not look like iron. Explain.

Answer. Iron is a metal but the tablet is not made up of iron metal. It is made up of a salt of iron. So, it does not look like iron.

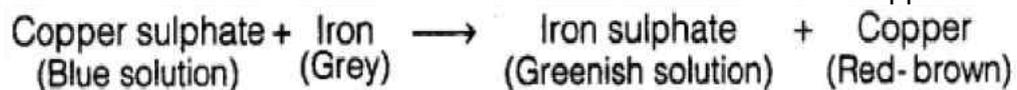
Question. 4

Iron is more reactive than copper. Can you write an activity to show this?

Answer. Take about 50 mL of water in a beaker and dissolve 5 g of copper sulphate in it to obtain copper sulphate solution (which is blue in colour). Put a clean iron nail in this solution and keep the beaker undisturbed for some time.

We will find that the blue colour of copper sulphate solution starts changing to green gradually and the iron nail gets covered with a red-brown layer of copper metal. It is because iron is more reactive than copper, so it displaces copper metal from its solution of copper sulphate.

It is the copper metal set free from its compound which forms a red-brown layer on the surface of iron nail. This shows that iron is more reactive than copper.



Question. 5

Fill in the blanks to complete the following paragraph: -

The name of the product formed in the reaction of sulphur andis sulphur dioxide gas. When sulphur dioxide is dissolved in..... sulphurous acid is formed. The sulphurous acid turns..... litmus paper to Generally, oxides of..... are acidic in nature.

After completing the paragraph, write two questions which you can raise on the basis of this information.

Answer. Oxygen, water, blue, red, non-metals.