

1. Give reason why :

- a) Copper metal is used for making electrical wires.
- b) Aluminium foil is used to wrap the food items.
- c) Immersion rods for heating the liquids are made of metallic substances.

Answers:

- a) Copper is a metal and it is a better conductor of electricity.
- b) Aluminium metal can be beaten into as thin sheet as possible and it does not spoil the food items.
- c) Metals are good conductors of heat.

2.a) Name the gas produced when a metal reacts with dilute hydrochloric acid.

b) Why are metals used for making bells?

c) The screw driver used by an electrician has a plastic or wooden handle. Give reason.

Answers:

a) Hydrogen

b) Metals have the physical property, sonorous by which they can produce ringing sounds when they are dropped or struck by a hard object like hammer.

c) Plastic and wood are poor conductors of electricity. So, persons would not get electric shock.

3. What happens when a copper vessel is exposed to moist air for a long time?

Answer:

When a copper vessel is exposed to moist air for a long time, then copper reacts with water, carbon dioxide and oxygen present in the moist air to form a green coating on the copper object.

The green coating is a mixture of copper hydroxide and copper carbonate.

Copper + water + oxygen + carbon dioxide →
Copper hydroxide + copper carbonate

4. Give reasons for the following.

- a) Sodium and Potassium are stored in kerosene.
- b) Copper cannot displace zinc from its salt solution.

Answers :

- a) Sodium and potassium vigorously react with atmospheric oxygen and water to form their oxides. Heat is also evolved during the reaction. Hence they are stored in kerosene.
- b) Copper is a less reactive metal than zinc. So, copper cannot displace zinc from its salt solution.

5. Can you store lemon pickle in an aluminium utensil?

Explain.

Lemon pickle contains acid which slowly react with aluminium (metal) of utensil to form toxic salt which can spoil pickle and damage our health.

6. Compare the properties of metals and non-metals with respect to

a) malleability b) ductility c) sonority

Answer :

Physical property	Metals	Non-metals
Malleability	Yes, malleable	Not malleable
Ductility	Yes, ductile	Not ductile
Sonority	Yes, sonorous	Not sonorous