

CLASS NOTES

Class: 8

Topic: CH- 4
METALS & NON- METALS

Subject: SCIENCE

TO BE WRITTEN IN SCIENCE COPY

NCERT EXERCISE QUESTIONS & ANSWERS

Question 6:

Give reasons for the following.

- (a) Aluminium foils are used to wrap food items.
- (b) Immersion rods for heating liquids are made up of metallic substances.
- (c) Copper cannot displace zinc from its salt solution.
- (d) Sodium and potassium are stored in kerosene.

ANSWER:

- (a) Aluminium foils are used to wrap food items because aluminium metal is malleable. Therefore, it can be beaten into thin foils.
- (b) Metals are good conductors of heat and electricity. Therefore, immersion rods for heating liquids are made of metallic substances.
- (c) A metal can displace a less reactive metal from its salt in an aqueous solution. But zinc is more reactive than copper. Therefore, copper cannot displace zinc from its salt solution.
 $\text{Cu(s)} + \text{ZnSO}_4 \text{(aq)} \rightarrow \text{No reaction}$
- (d) Sodium and potassium are stored in kerosene because they are highly reactive elements. They can easily catch fire even when in contact with air.

Question 7:

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

ANSWER:

Lemon pickle cannot be stored in aluminium utensils because lemon pickle contains acids, which can react with aluminium (metal) liberating hydrogen gas. This can lead to the spoiling of the pickle.

Question 9:

What happens when

- (a) Dilute sulphuric acid is poured on a copper plate?
- (b) Iron nails are placed in copper sulphate solution?

Write word equations of the reactions involved.

ANSWER:

- (a) When dilute sulphuric acid is poured on a copper plate, no reaction will take place.
- (b) Iron being more reactive displaces copper from copper sulphate solution. In this reaction, the blue colour of copper sulphate fades and there is deposition of copper on the iron nail.

Question 10:

Write the uses of metals & non- metals .

ANSWER-

- a) Copper & Aluminium is used for electric transmission.
- b) Iron is very tough, strong & cheap. It is used for making tools, machines , agricultural equipment & in house constructions.
- c) Zinc is used for galvanization of iron to protect it from rusting.
- d) Magnesium is used in fireworks as it burn with dazzling white flame.

- e) Alloys of silver or tin with mercury is used for filling tooth cavities & are called as dental amalgams.
- f) Liquid oxygen is used as rocket fuel.
- g) Liquid Nitrogen is used to preserve blood, corneas or donated organs.
- h) Nitrogen gas is used for filling food packages.
- i) Nitrogenous compounds are present in fertilizers.
- j) Carbon in the form of graphite is used as electrodes as it is a good conductor of electricity.
- k) Sulphur is used in manufacture of rubber & sulphuric acid.
- l) Chlorine is a greenish yellow gas used in manufacture of a plastic PVC- poly vinylchloride.
- m) Neon is used for illumination in glow sign boards.
- n) Argon is used to fill electric bulbs.

MULTIPLE CHOICE QUESTIONS

1. Which of the following is a liquid at room temperature?

- (a) Iron
- (b) Bromine
- (c) Iodine
- (d) Phosphorus

2. Which one of the following metals is the most ductile?

- (a) Aluminium
- (b) Copper
- (c) Iron
- (d) Gold

3. Name the gas evolved when magnesium reacts with dilute hydrochloric acid.

- (a) Chlorine
- (b) Oxygen
- (c) hydrogen
- (d) Nitrogen

4. When MgO is dissolved in water, $Mg(OH)_2$ is obtained. The solution thus obtained is ___ in nature.

- a) amphoteric
- b) alkaline
- c) neutral
- d) acidic

5. Which of the following pairs of compounds undergo displacement reaction when they react with each other?

- a) Cu and $AgNO_3$ solution
- b) Ag and $FeSO_4$ solution
- c) Cu and NaCl solution
- d) Ag and NaCl solution

6. A reaction in which a more reactive metal replaces a less reactive metal from its salt solution is called a/an _____ reaction.

- a) combination

b) displacement

c) double displacement

d) addition

7. Food cans are coated with tin and not with zinc because:

A. Zinc is less reactive than tin.

B. Zinc is more reactive than tin.

C. Zinc has a higher melting point than tin.

D. Zinc is costlier than tin.

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

A. Zinc

B. Phosphorus

C. Sulphur

D. Oxygen

9. A substance is said to be sonorous if it _____.

A. conducts heat

B. conducts electricity

C. conducts water through metal pipes

D. produces a ringing sound when beaten

10. Which among the following is used in fireworks?

a) Silver

b) Aluminium

c) Magnesium

d) Mercury

