

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

- (a) Zinc (b) Phosphorus
(c) Sulphur (d) Oxygen.

Ans. (a) Zinc.

2. Which of the following statements is correct ?

- (a) All metals are ductile.
(b) All non-metals are ductile.
(c) Generally, metals are ductile.
(d) Some non-metals are ductile.

Ans. (c) 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) less, (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 very reactive metal.

(c) Copper displaces zinc from zinc sulphate solution.

(d) Coal can be drawn into wires.

Ans. (a) F, (b) T, (c), F, (d) F.

5. Some properties are listed in the following table. Distinguish between metals and non-metals on the basis of these properties.

Properties	Metals	Non-metals
1. Appearance		
2. Hardness		
3. Malleability		
4. Ductility		
5. Heat Conduction		
6. Conduction of Electricity		

Ans.	Properties	Metals	Non-metals
	1. Appearance	Lustrous	Dull
	2. Hardness	Hard	Soft
	3. Malleability	Malleable	Non-malleable
	4. Ductility	Ductile	Non-ductile
	5. Heat conduction	Good conductors	Bad conductors
	6. Conduction of electricity	Good conductors	Bad conductors

6. Give reason for the following :

(a) Aluminium foils are used to wrap food items.

Ans. Aluminium is highly malleable. It can be easily beaten into thin sheets. Hence, aluminium foils are generally used to wrap food items.

(b) Immersion rods for heating liquids are made up of metallic substances.

Ans. Metals are good conductor of heat. This is the reason that immersion rods are made up of metallic substances.

(c) Copper cannot displace zinc from its salt solution.

Ans. Zinc is more reactive than copper. A less reactive metal (copper) cannot displace a more reactive metal (zinc) from its solution. Hence, copper is unable to displace zinc from its salt solution.

(d) Sodium and potassium are stored in kerosene.

Ans. Sodium and potassium metals are very reactive. They react vigorously with oxygen and water. A lot of heat is generated in this reaction. Therefore, they are stored in kerosene.

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

Ans. Aluminium is a metal and lemon is acidic in nature. The acids react with metals to give hydrogen. So we cannot store lemon pickle in a aluminium utensil.

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

A	B
1. Gold	(a) Thermometers
2. Iron	(b) Electric wire
3. Aluminium	(c) Wrapping food

4. Carbon
5. Copper
6. Mercury

- (d) Jewellery
(e) Machinery
(f) Fuel

Answers. 1. (d), 2. (e), 3. (c), 4. (f), 5. (b), 6. (a)

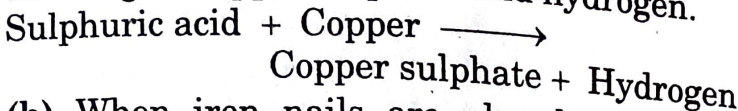
9. What happens when :

(a) Dilute sulphuric acid is poured on a copper plate ?

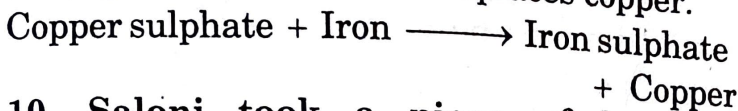
(b) Iron nails are placed in copper sulphate solution ?

Write word equations of the reactions involved.

Ans. (a) Metal reacts with acid to give hydrogen. When dilute sulphuric acid is poured on a copper plate, copper reacts with acid to give copper sulphate and hydrogen.



(b) When iron nails are placed in copper sulphate solution, displacement reaction takes place in which iron displaces copper.

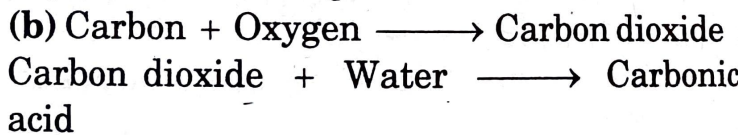


10. Saloni took a piece of burning charcoal and collected the gas evolved in a test-tube.

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

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

Ans. (a) To find the nature of gas Saloni should bring a wet litmus paper in contact with the gas. If the gas turns wet blue litmus paper into red, the gas will be acidic.



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 goldsmith use acid solutions to clean gold ornaments. Gold is a metal, when it is washed in acidic solution, some gold dissolves in acid to form oxide. This causes the loss of gold in the form of gold oxide. In this process certain amount of gold is reduced.