

## CBSE TEST PAPER-1

## Materials: Metals and Non-Metals

Q.1: Fill in the blanks: (1 mark)

- (a) Phosphorous are very \_\_\_\_\_ non-metal.
- (b) Metals are \_\_\_\_\_ conductor of heat and \_\_\_\_\_.
- (c) Iron is \_\_\_\_\_ reactive than copper.
- (d) Metals react with acids to produce \_\_\_\_\_ gas.
- (e) The 'pop' sound indicates the presence of--- gas.

Q.2 Mark 'T' if the statement is true and 'F' if it is false: (1 mark)

- (a) Generally non-metals react with acids.
- (b) Sodium is a very reactive metal.
- (c) Copper displaces zinc from zinc sulphate solution.
- (d) Carbon can be drawn into wires.
- (r) Metal oxides are basic in nature.

Q. 3 Answer in one word (1 mark)

1. Give one example of each: metals and non-metals.
2. Name the metal, which is the best conductor of heat and electricity
3. Name the property by virtue of which metals can be drawn into thin wires.
4. Name the gas produced, when metals reacts with acids.
5. What is the color of the copper sulphate solution?

Q. 4 Answer these questions short type ( 2 marks)

- 1) What happens when magnesium ribbon is burnt in air?

- 2) Why copper cannot displace zinc from zinc sulphate solution?
- 3) What happens when sulphur di- oxide reacts with water? Give the chemical reaction involved.
- 4) Why lemon pickle cannot be stored in an aluminum foil?
- 5) What happens when dilute sulphuric acid is poured on a copper plate?

Q 5. Answer these questions ( 3 marks)

- 1) What happens when iron reacts with oxygen and water? Give the chemical reaction involved.
- 2) What happens when copper vessel is exposed to moist air for a long time? Give the chemical reaction that takes place.
- 3) Explain the following terms. (i) Malleability (ii) Ductility (iii) Sonorous
- 4) Write three uses of non-metals.
- 5) You must have seen in the laboratory that sodium metal is always stored in kerosene oil. Why we do so?  
(b) Name a non-metal that is very reactive and is stored in water.

## ANSWER SHEET

Answer: (a) reactive (b) good, electricity (c) more (d) hydrogen

2. Answer: (a) F (b) T (c) F (d) F

3. (i) Metals: Copper. Non-Metals: Sulphur.

(ii) Copper.

(iii) Ductility

(iv) Hydrogen

(v) Blue.

Q4. (1) When metals burn in air, the formation of their oxide takes place. Hence, when Magnesium reacts with air, magnesium oxide is formed.  $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$

(ii) Copper is less reactive than zinc. Hence, copper cannot displace zinc from zinc sulphate solution.

(iii) When sulphur dioxide reacts with water, sulphurous acid is formed.



(iv) Aluminium reacts with the citric acid present in the lemon. Hence, lemon pickles can't be stored in aluminium vessels.

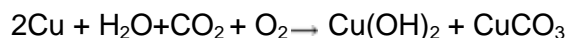
(v) When dilute sulphuric acid is poured on a copper plate it reacts with copper to form copper sulphate and hydrogen. As a result the copper gets eroded which takes place according to the following equation:

Sulphuric acid + Copper  $\rightarrow$  Copper sulphate + Hydrogen.

5. (1) Iron oxide is formed and hydrogen gas is produced. The chemical reaction that takes place is:



(2) When copper vessel is exposed to moist air for a long time, it acquires a dull green coating. The green material is a mixture of copper hydroxide and copper carbonate. The following chemical reaction takes place:



(3) Ans:

(i) Malleability: The property of the metals by virtue of which they can be drawn into sheets.

(ii) Ductility: The property of the metals by virtue of which they can be drawn into thin wires.

(iii) Sonorous: The property of the metals by virtue of which they produce ringing sound when struck hard.

4. Three uses of non-metals.

1. Oxygen a Non-metal is essential for our life.

2. Non-metal like nitrogen is used in fertilizers e.g. urea.

3. Purple colored solution of Iodine is applied on wounds as an antiseptic.

5. (a) Sodium metal is very reactive. It reacts vigorously with air and water and a lot of heat is generated. Therefore, it is kept in kerosene.

(b) Phosphorous