

Chapter -3 Metals & Non –metals**Topic: Physical & Chemical properties of metals & non-metals****Questions & Answer**

1. **Why should we not throw small pieces of sodium into a sink in the laboratory?**

Reaction is violent and exothermic that the hydrogen gas evolved catches fire.

2. **Name any two amphoteric oxides.**

Zinc oxide, Aluminium oxide

3. **What are amphoteric oxides?**

Metal oxides which react with both acids as well as bases to produce salts and water.

Choose the amphoteric oxides amongst the following oxides.

Na_2O , ZnO , Al_2O_3 , CO_2 , H_2O

ZnO , Al_2O_3

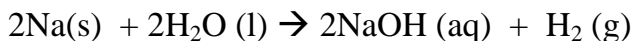
4. **What would you observe when calcium reacts with water. State the reason for the observation. / Why do calcium floats on water?**

Calcium starts floating because the bubbles of hydrogen gas formed stick to the surface of the metal.

The reaction of calcium with water is less violent. The heat evolved is not sufficient for the hydrogen to catch fire.



5. **Write the chemical equation for the reaction between sodium and water.**

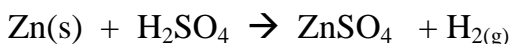


6. **Which gas is usually liberated when an acid reacts with a metal?**

Hydrogen

7. **Write observation and the chemical equation when granulated zinc reacts with dil sulphuric acid.**

Effervescence (hydrogen gas) produced and the test tube becomes warm.



8. **Give an example of a metal which is the best and poor conductor and of heat.**

Best conductors of heat -Silver and copper,

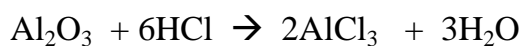
Poor conductors of heat - lead and mercury

9. Name two most malleable metals.

Gold and silver

10. Give reason to justify that aluminium oxide is an amphoteric oxide.

Aluminium oxide reacts with acids as well as bases to form salts and water.



11. List any two observations when a highly reactive metal is dropped in water.

Violent, exothermic and catches fire

12. State two physical properties of gold which are of extreme use to jewelers.

Malleability and ductility