

## Acids & bases:

Q1. What are acid-base indicators? Mention their colour changes how these indicators help in detecting acids & bases.

Indicators -	Acids .	Bases
red litmus solution		
blue litmus soln.		
phenolphthalein		
methyl orange.		

Q2. What are olfactory indicators. How are they used to identify acids & bases.  
— are substances which have different odour in acids and bases.

eg. onion. — in acid it gives its characteristic smell. but in bases the smell is destroyed.

clove — has its characteristic smell in acid but not in bases.

Vanilla — has a pleasant smell in acid and no smell in base.

acidity  
Q3. If a person suffers from acidity, after overeating, which of the following would you suggest as a remedy — lemon juice, vinegar or baking soda solution? Why?

Baking soda solution is an antacid which is sodium bicarbonate, which turns into an alkali on treating with water. This is used to neutralize the effect of <sup>excess</sup> acid produced in the stomach.

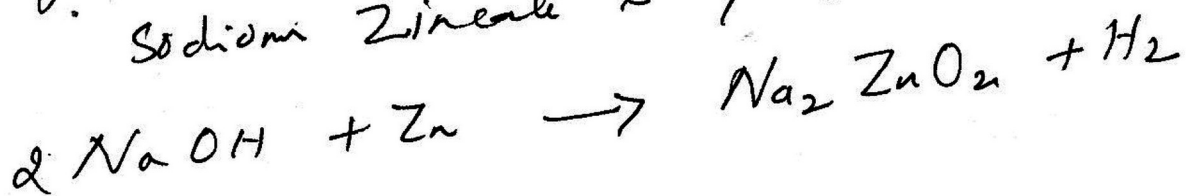
~~Explain the~~ Draw and Explain the reaction of acids with metals with the help of an activity. ~~Answer the~~

Q5. ~~Explain~~ <sup>Write</sup> the reaction of metal carbonates / hydrogen carbonates with acids. Draw and label the diagram. Name the gas produced during the reaction. How is the gas tested?

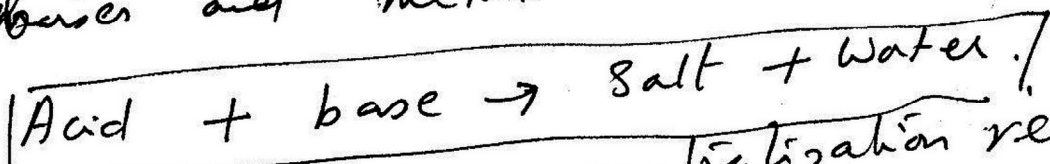
Q6 How do metals react with bases?

Only few metals react with bases to form salts.

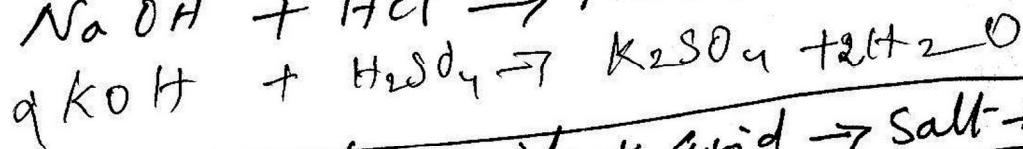
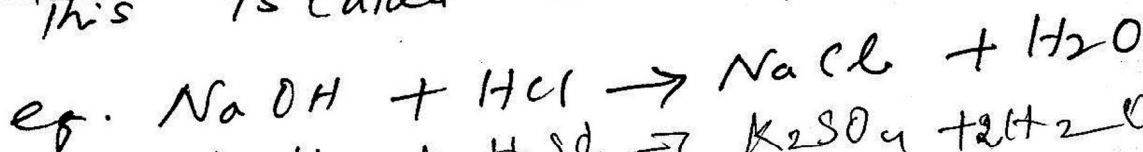
eg. Zinc on warming with NaOH gives Sodium Zincate & hydrogen gas.



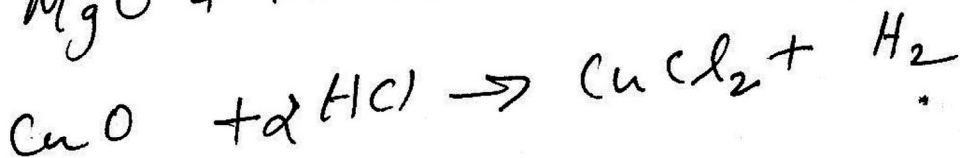
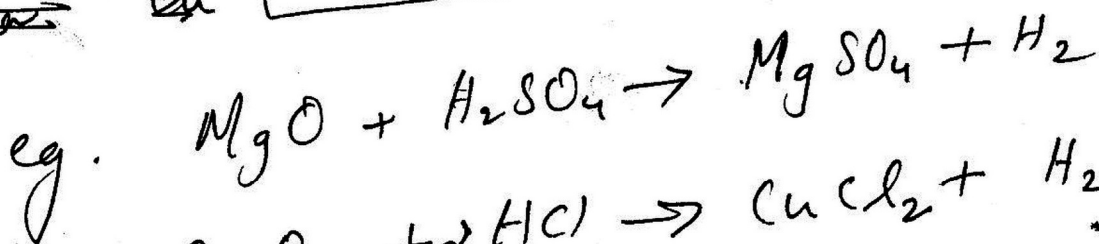
Q7. Write the reaction of acids with bases and metallic oxides.



This is called a neutralization reaction.



~~Q8~~ ~~What~~ ~~is~~ ~~the~~ ~~reaction~~ ~~of~~ ~~metal~~ ~~oxide~~ ~~with~~ ~~acid~~  $\rightarrow$  Salt + water



Q8 What are non metallic oxides? Justify.

Non metallic oxides are acidic.

eg.  $\text{CO}_2$  on dissolving in water forms Carbonic acid which can turn blue litmus red.



When  $\text{CO}_2$  is passed through lime water  $\text{CaCO}_3$  (salt) and water are produced.

~~To  $\text{CO}_2$  behaves~~