

d) A is false but R is true.

4. Assertion(A): Ammonia solution is an alkali.

Reason (R): Ammonia solution turns blue litmus paper red.

- a) Both A and R are true and R is the correct explanation of A.
- b) Both A and R are true but R is not the correct explanation of A.
- c) A is true but R is false.
- d) A is false but R is true.

5. Assertion (A): On adding H_2SO_4 to water the resulting aqueous solution gets corrosive.

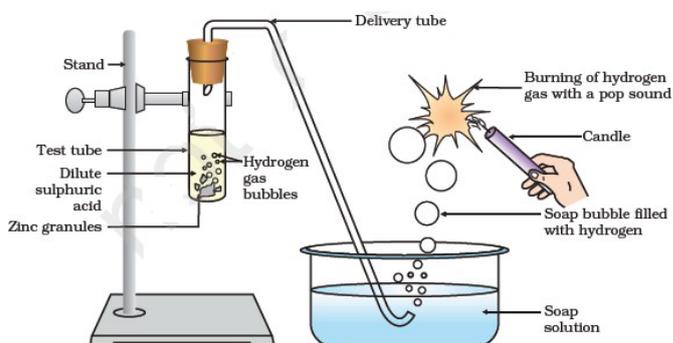
Reason (R): Hydronium ions are responsible for corrosive action.

- a) Both A and R are true and R is the correct explanation of A.
- b) Both A and R are true but R is not the correct explanation of A.
- c) A is true but R is false.
- d) A is false but R is true

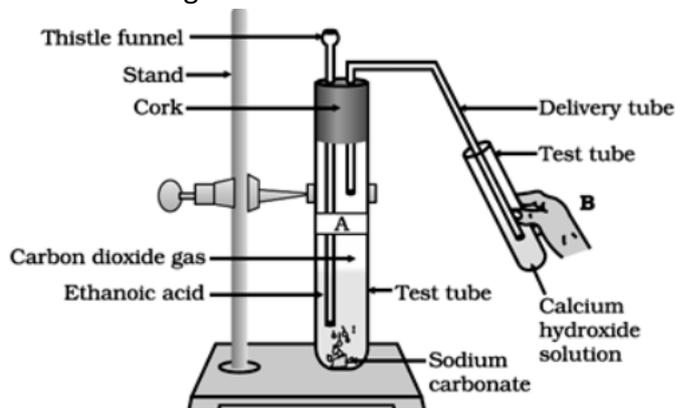
CASE BASED QUESTION:

Read the following and answer the following questions:

Experiment-1 to show the reaction of dilute sulphuric acid with zinc a few pieces of zinc granules in the boiling tube is taken and 5ml of dil. H_2SO_4 added to it and the gas bubble is formed.



Experiment-2 of passing CO_2 gas through calcium hydroxide solution. On passing the carbon dioxide gas evolved through lime water.



i. In **experiment 1** which gas evolved which produce the pop sound:

- a. Oxygen
- b. Hydrogen
- c. Nitrogen
- d. CO₂

ii. The reaction that takes place in experiment 2 is:

- a. $2\text{NaOH} + \text{Zn} \rightarrow \text{Na}_2\text{ZnO}_2 + \text{H}_2$
- b. $2\text{NaOH} + \text{Fe} \rightarrow \text{Na}_2\text{FeO}_2 + \text{H}_2$
- c. $2\text{KOH} + \text{Zn} \rightarrow \text{K}_2\text{ZnO}_2 + \text{H}_2$
- d. $2\text{NaOH} + \text{Sn} \rightarrow \text{Na}_2\text{SnO}_2 + \text{H}_2$

iii. In experiment-2 neutralization reaction can be written as:

- a. Base + Acid \rightarrow salt + water
- b. Base + Base \rightarrow Strong base
- c. Acid + Acid \rightarrow Strong acid
- d. None of the above

iv. The chemical formula of sodium zincate:

- a. Na₂ZnO₂
- b. Na₃ZnO₃
- c. Na₆ZnO₃
- d. Na₄ZnO₃

v. In experiment - 2 the product which is formed on passing excess of CO₂ in CaCO₃:

- a. Ca(CO₃)
- b. Ca₂ (HCO₃)
- c. Ca₂CO₃
- d. Ca(HCO₃)₂
