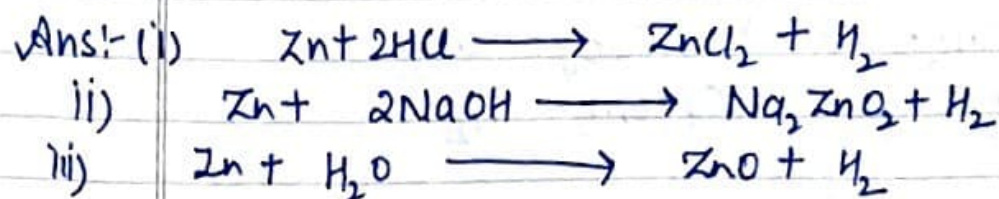


(Exercise-68)

Q:-1 Hydrogen can be prepared with metal Zn by using
(i) acid (ii) Alkali (iii) Water

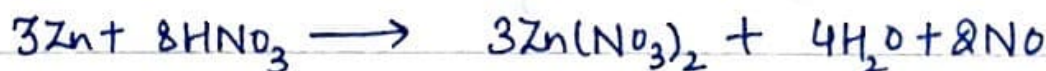


Q:-2 Which test should be made before collecting hydrogen in a gas jar.

Ans:- Hydrogen burns with pop sound, hence hydrogen should be tested with a burning flame. If the burning produces a pop sound it confirms the production of hydrogen gas.

Q:-3 Why is HNO_3 not used in preparation of hydrogen?

Ans:- HNO_3 is not used in preparation of hydrogen because HNO_3 is a powerful oxidising agent, and the oxygen formed due to its decomposition oxidises hydrogen to give water thus defeating the purpose of reaction.

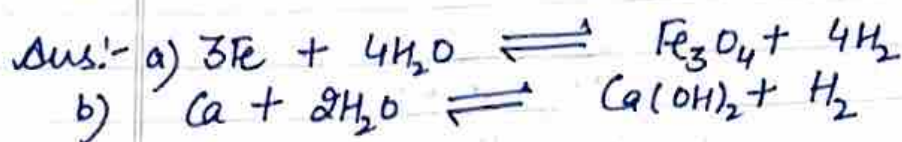


Q4 why hot conc. H_2SO_4 not used in the preparation of H_2 ?

Ans:- Hot conc. H_2SO_4 not used in preparation of H_2 because it will produce SO_2 .



Q:-5 Give equation to express the reaction
a) steam and red hot iron
b) Calcium and water



Q:-6 Give reason for the following:-
a) Zn granules are used in lab. preparation of H_2 .
b) Purified and dry H_2 is collected over Hg.
c) The end of the thistle funnel should be dipped under acid.
d) Dil. H_2SO_4 cannot be replaced by conc. acid in preparation of H_2 .

Ans:- a) Zn granules are used in lab. because impurity present in granulated Zn is Cu, whose catalysing effect speed up the rate of reaction.

b) It will not have any impact.
c) To prevent escape of gas from thistle funnel.

d) Because it is a strong oxidising agent and it will produce SO_2 .