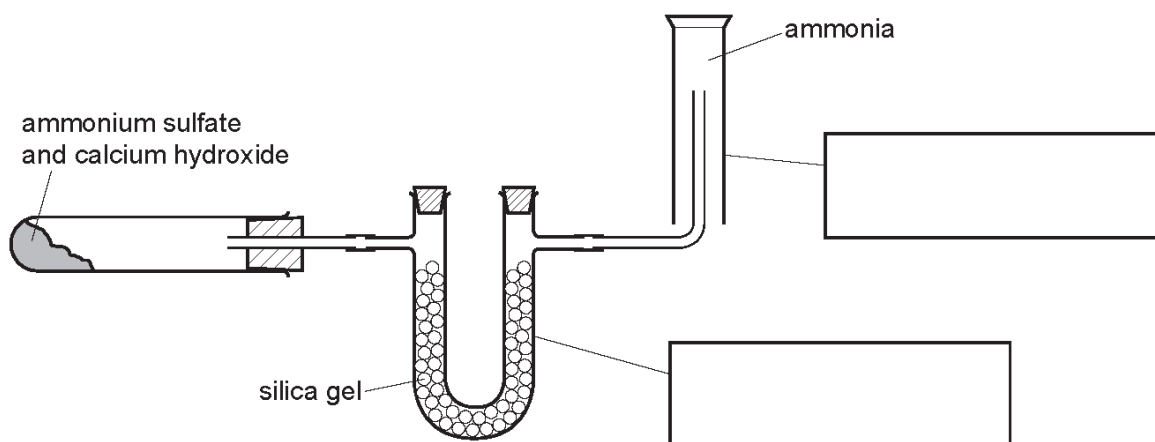




177 - (0620-W 2014-Paper 6/2-Q1) - SOME NON-METALS AND THEIR COMPOUNDS, IN THE LAB (CHEMICAL TEST & SALT ANALYSIS)

Ammonia gas can be prepared using the apparatus below. A mixture of two solids, ammonium sulfate and calcium hydroxide, is heated.



(a) (i) Complete the boxes to identify the pieces of apparatus. [2]

(ii) Show, by using an arrow, where heat is applied. [1]

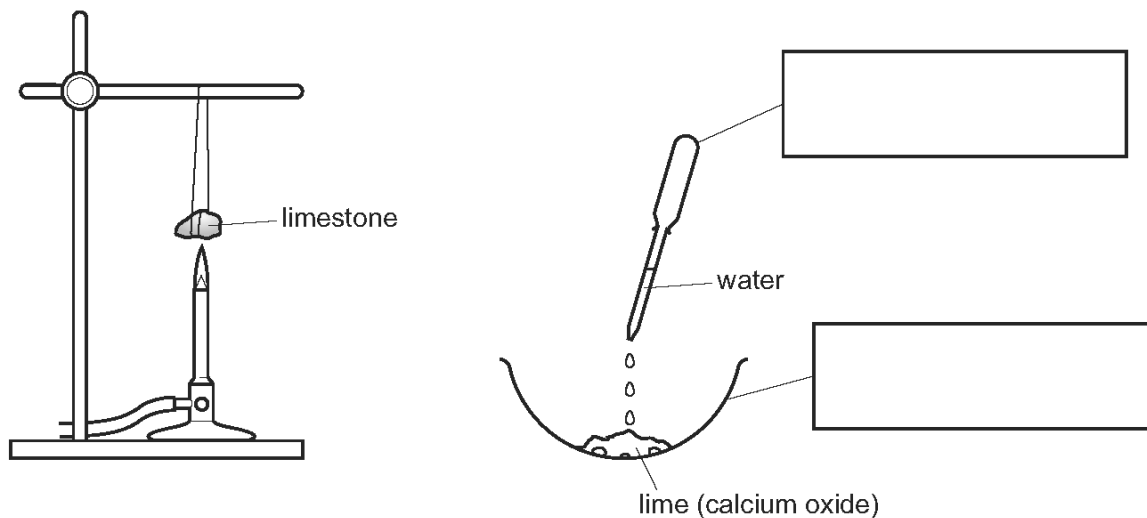
(b) Why is the ammonia collected by upward delivery as shown, and not over water?  
 .....  
 ..... [2]

(c) A stopper from a bottle of concentrated hydrochloric acid was placed near the ammonia gas. Clouds of white smoke were seen. Explain this observation.  
 .....  
 .....  
 ..... [3]

(d) Give a different test for ammonia gas.  
 test .....  
 result ..... [2]

178 - (0620-W 2015-Paper 6/1-Q1) - SOME NON-METALS AND THEIR COMPOUNDS

A piece of limestone was heated strongly for ten minutes. The solid was then left to cool. Cold water was added to the solid. The solid reacted with the water to form a solution, A.



(a) Complete the boxes to label the pieces of apparatus. [2]

(b) (i) Suggest what could be used to hang the piece of limestone from the stand over the heat. Explain your answer.

.....  
 .....  
 ..... [2]

(ii) In what position should the air hole of the Bunsen burner be? [1]  
 .....

(c) Predict the effect of

(i) solution A on pH indicator paper, [1]  
 .....

(ii) carbon dioxide on solution A. [1]  
 .....

