



**Science Revised Syllabus  
Junior Certificate  
Higher Level**

**Past Exam Questions on  
C Air & Oxygen**

**Q6 Part (b) 2013**

(b) Carbon dioxide dissolves in water to give an acidic solution. Other gases dissolve to give solutions that are more acidic and give rise to acid rain.

(i) Name two gases that react in the atmosphere to produce acid rain. (6)

Gas 1 \_\_\_\_\_

Gas 2 \_\_\_\_\_

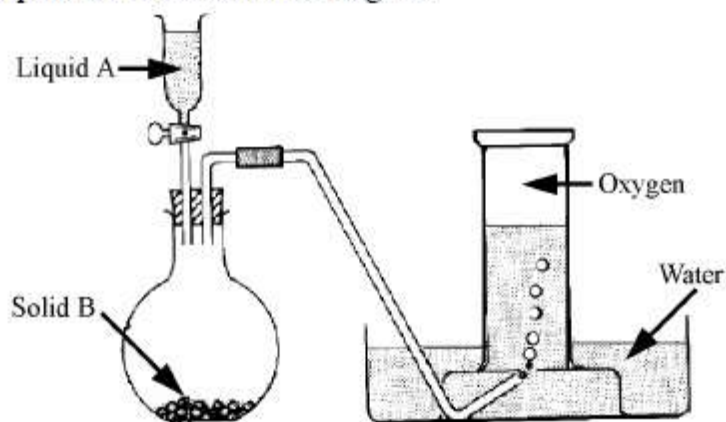
(ii) Give a source of one of the gases that you have named above. (6)

Name of gas \_\_\_\_\_

Source of gas \_\_\_\_\_

**Q5 Part (a) 2009**

- (a) Oxygen can be prepared by decomposing liquid A using solid B as a catalyst. This preparation is shown in the diagram.



- (i) Name *liquid A*. (3)

Name \_\_\_\_\_

- (ii) Name *solid B*. (3)

Name \_\_\_\_\_

- (iii) What is a *catalyst*? (3)

What? \_\_\_\_\_

Carbon was burned in oxygen and the products tested with pieces of moist red and blue litmus paper.

- (iv) Give the *result of the litmus test* described above and make a *conclusion* based on this result. (6)

Result and conclusion \_\_\_\_\_

\_\_\_\_\_

**Q4 Part (h) 2008**

- (h) Magnesium was burned in oxygen as shown in the diagram.  
(i) What *colour* was the flame?

\_\_\_\_\_

- (ii) Pieces of *moist blue* and *red litmus paper* were mixed with the product of the combustion. What *result* was seen?

\_\_\_\_\_

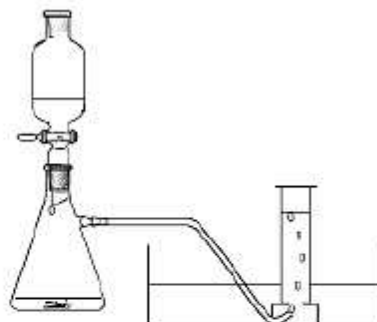
- (iii) What *conclusion* can be made from the result of the litmus test?

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**Q4 Part (b) 2006**

- (b) In 1774 Joseph Priestley, an English chemist, discovered oxygen. Name the two *chemicals* that you reacted together to *prepare oxygen* in the school laboratory. One of the chemicals acted as a *catalyst*.



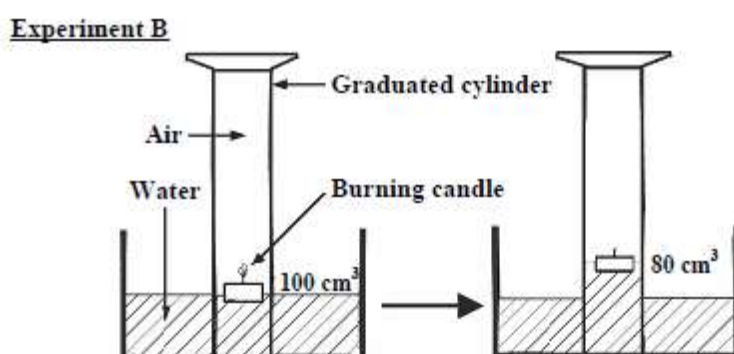
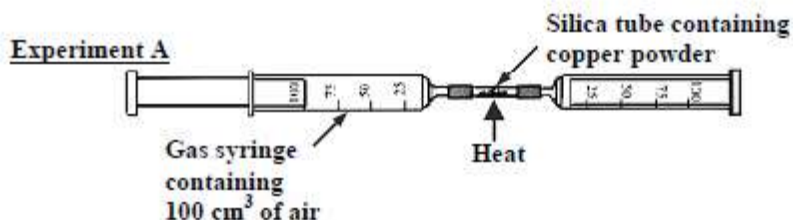
Names of chemicals \_\_\_\_\_

Which one of the two chemicals used was the *catalyst*?

\_\_\_\_\_

**Q6 Part (a) 2006**

- (a) The composition of air can be investigated in different ways. Two experiments are shown in the diagram.



In Experiment A the air was pushed repeatedly over the heated copper powder and only  $79 \text{ cm}^3$  of gas remained at the end of the experiment.

- (i) Why is it necessary to let the apparatus cool down before measuring the volume of the remaining gas? (3)

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- (ii) Why did the volume of gas decrease and then remain steady? (3)

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- (iii) What is the remaining gas mainly composed of? (3)

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- (iv) Experiment B is less accurate than Experiment A. Give a reason why this is so. (6)

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