



**Science Revised Syllabus
Junior Certificate
Higher Level**

**Past Exam Questions on
C Water**

Q4 Part (c) 2012

- (c) Water had been flowing through the pipe shown in the photograph for some time. The pipe originally had no internal deposit. Give a possible reason for the formation of the deposit. What do you think the deposit is?

Reason _____

Deposit _____



Q6 Part (a) 2012

(a)



The photograph shows a water treatment plant that produces water fit for domestic consumption. Name and describe four processes used in this treatment of water. (24)

(i) Name _____

Describe _____

(ii) Name _____

Describe _____

(iii) Name _____

Describe _____

(iv) Name _____

Describe _____

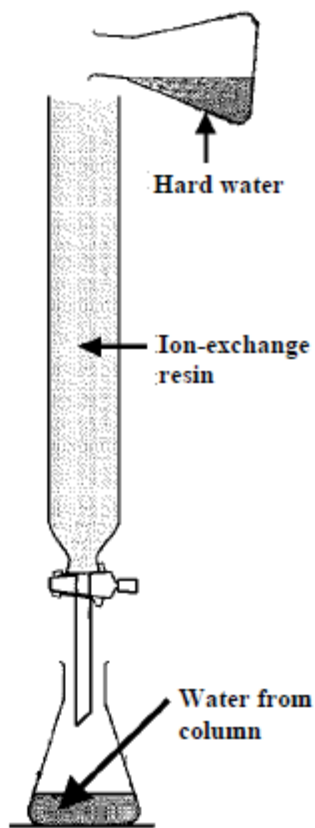
Q6 Part (b) 2011

(b) Water hardness is a common problem.

(i) Describe a test that distinguishes between hard and soft water. (6)

(ii) Name a compound that causes hardness when it dissolves in water. (3)

(iii) Examine the diagram.
Would you expect the water from the column of resin to be hard or soft?
Justify your answer. (3)



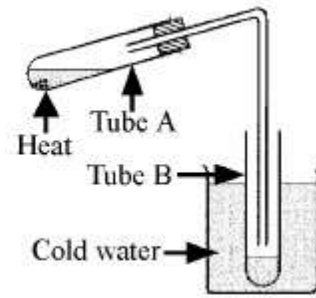
How could you test the water to confirm this answer?
What result would you expect? (6)

Q4 Part (e) 2010

- (e) Hard water in test tube A was heated and some water evaporated from it and condensed in test tube B. Is the water in test tube B *hard or soft*? Give a *reason* for your answer.

Is? _____

Reason _____



Q4 Part (g) 2010

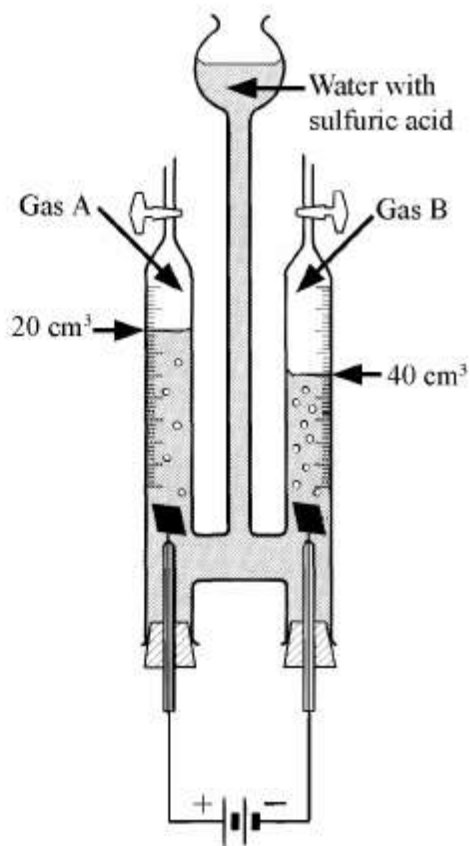
- (f) Name *two processes* used in the treatment of water for safe use in our homes.

Process one _____

Process two _____

Q6 Part (a) 2010

(a) The diagram shows an apparatus used to decompose water by passing an electric current through it. The volumes of gases released by this process can be measured as shown.



(i) Name the *process* which decomposes a substance when electric current is passed through it. (3)

Name _____

(ii) Why is a small amount of *sulfuric acid* added to the water? (3)

Why? _____

(iii) Name *gas A* and give a *test* to confirm your answer. (6)

Name _____

Test for gas A _____

(iv) Name *gas B* and give a *test* to confirm your answer. (6)

Name _____

Test for gas B _____

(v) Water is a compound formed by the chemical combination of elements A and B. In what *proportion* do A and B *combine* to form water? (3)

What? _____

Q5 Part (b) 2009

- (b) (i) State how to *test* water to confirm the presence of hardness? (6)

Test _____

- (ii) Name a *metallic element* some of whose compounds *cause hardness* in water. (3)

Name _____

- (iii) Give one *effect* of hard water. (3)

Give _____

Q6 Part (b) and (c) 2007

- (b) Flask A contains hard water. Some of this water was poured into the tube containing an ion exchange resin. The water that passed through the ion exchange resin was collected in flask B.

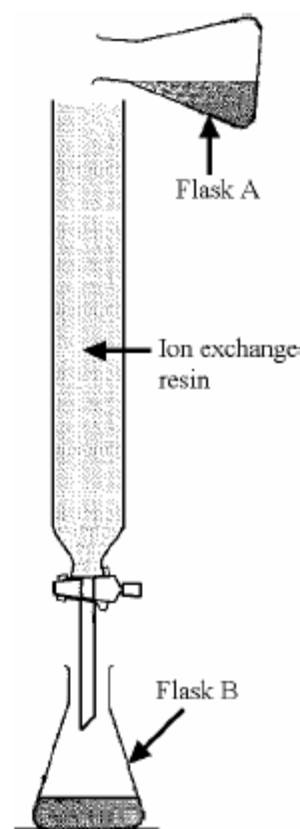
- (i) Describe a *test* that you could perform on water samples from flask A and from flask B to compare their hardness?
What result would you expect from this test? (12)

Test _____

Result _____

- (ii) What *causes* hardness in water? (3)

Cause _____



(c) Water supplied to domestic consumers has undergone five or more different processes in a water treatment plant.

(i) Name **one** of the *processes* carried out on water in a treatment plant. (3)

Process _____

(ii) Give a *reason* why the treatment that you have named is carried out. (3)

Reason _____

Q4 Part (d) 2006

(d) How would you show that *water contains dissolved solids*?

Q4 Part (h) 2006

(h) The diagram shows the electrolysis of water.

Why is *some acid added* to the water?

Why? _____

Give a *test* for *gas A*.

Test _____

The volume of *gas A* is twice that of *gas B*.

What does this tell us about the composition of water?

What? _____

